

# ARCHITECTURAL RECORD

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# The View from Two Penn

## Editorial

By Robert Ivy, FAIA

From the windows of Two Penn Plaza, the offices of ARCHITECTURAL RECORD survey a tough-talking, broad-shouldered scene straight out of Miracle at 34th Street: It's where the garment district collides with Macy's, animated by the daily headlong rush of thousands of commuters inclining toward Pennsylvania Station and home. The renovated interiors may often our perceptions, street odors fade away and the anachronistic perspective outside seems almost romantic, if frantic—until we return to the street.

The view of Two Penn Plaza presents a different face. This great thrill of a building must be one of New York's most deplored. Its list of detractors includes Joseph Giovannini, who, writing in *New York* magazine in April 2003, listed Two Penn as one of the eight worst buildings to have brightened our skyline: "We tore down McKim, Mead and White's Pennsylvania Station for this?" (Yes, ironically RECORD occupies the site of the greatest architectural travesty of the 20th century.)

Or consider the true tale of two British ladies recently overheard by one of our staff members. "Oh, look, dear," said she, dutifully pointing to her guidebook. "It says this is the ugliest building in New York!" At which point, they shook their heads, clucked their tongues, and marched on—a vignette straight out of a New Yorker cartoon.

While stone throwing comes easy to any critic, this behemoth presents an especially broad target. Designed in 1968 by the offices of Charles Luckman (deceased architect and former president of the Lever Brothers corporation, Horatio Alger Award-winner Luckman had commissioned the Greene Lever House and went on to build Boston's Prudential Center and Cape Canaveral), the building combines many of the worst impulses of the 1960s. Set on a large podium, the 29-story building runs for almost two blocks along Seventh Avenue, sitting athwart 32nd Street and blocking the view of Madison Square Garden, itself no picture postcard. We've learned a lot since 1968. Part of our derision comes from comparison with McKim's masterpiece and the bad karma that inevitably surrounds any structure that would try to replace the lofty vaults and smoky recesses of the original homage to the Baths of Caracalla. Yet Two Penn looms within our city with persistence, offering little in compensation for its daily intake and discharge of humanity through its bowels. While lively commerce occurs inside the pedestrian malls on its lower levels and at financial institutions up on the podium, the street offers only a couple of newsstands and a folding table for hawkers for the homeless.

We are struck by its abruptness. Like other big buildings from the

'60s, an open plaza separates Two Penn from the avenue. The wall then bolts up from a travertine-clad lobby toward an unrelieved facade consisting of alternating bands of precast panels and tinted glazing. That long, unarticulated, unmodulated wall fares poorly when compared to the massive, though more fine-grained, buildings that surround it, such as the Pennsylvania Hotel across the street. Lacking architectural detail, scale-giving elements, or urban amenity, Two Penn breathes the worst kind of architectural arrogance.

So why beat up on poor old Two Penn at this late date? Because, throughout the United States, we continue to make similar mistakes. Tour any major city and you will find its siblings—boxy towers covered in mirrored or tinted glazing that detract rather than add to the fabric of our cities, altering the psychology of passersby and the people who must enter them each day. And they are not all 37 years old like the New York version! The sad fact is that we continue to build such soulless, unrooted structures this year, every year, in downtown San Diego, or San Francisco, or Chicago. Whatever the era, they're not good enough.

We architects often blame others, primarily our developer clients, decrying their stingy budgets and unenlightened civic sensibilities. The real world, we say, makes real demands and forces compromises that most people just do not understand. We have to make a living. The zoning laws are punitive; the financial models control the outcome. However, we architects serve as guardians not only of health, safety, and welfare, but also of quality of life in each individual project and for the cities that those buildings add up to. There is no excuse for a poor design.

Here is an unalterable fact: All of us have to live with the structures that architects make, whoever the client, whatever the rationalization. Have you advanced work that you honestly could not defend in a design jury? Did you ever tell a client "No"? When your city awakens tomorrow morning, what will it find? What do the guidebooks say about your work? Meanwhile, should you find yourself in New York, come by Two Penn Plaza for a reminder lesson and a visit to ARCHITECTURAL RECORD. Take a deep breath and plunge on in, because regardless of the guidebooks, the view is terrific from inside.



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# Letters

## Dream of expression

udos to ARCHITECTURAL RECORD and Michael Sorkin for the publication of Sorkin's bold plan for a stadium on Governor's Island [Critique, August 2005, page 51]. Our society has no accepted venue for visionaries like Sorkin to propose their solutions to our building needs. I love the idea of "Request for Expression" column in newspapers or magazines where designers can submit proposals for existing conditions. Developers and politicians are free to dictate what is built because there is no venue for contrarian ideas to be floated into the public realm. I dream of the day architects design not only the form of our built environment but also the education and function.

Erik Johnson  
Milwaukee

## The battle of the big box

am Lubell's polemic on the current state of "big box" architecture ["Is There Hope for the Big Box?" August 2005, page 68] reveals a strong negative bias toward both the idea of large-format retailers and the design of the buildings. While conceding that recent attempts to improve the design of big boxes has produced some interesting results, the author disparages retailers, claiming they impose their soulless lack of identity onto cherished areas."

What the article fails to recognize is that the "big box" is a highly evolved design solution that balances function, cost, aesthetics, and image, and technology in a competitive business environment. The 1960s strip architecture of Robert Venturi has matured into a business model that embraces automobile culture, including freeways, parking lots, and other "soulless" infrastructure. Big-box retail is one element of the modern landscape that is highly responsive to a variety of forces. Contrary to the assertions

in the article, community pressure is not the motivating force behind the move to improving the design of large retail developments. The real reason that retailers are embracing high-quality design is that design is a key element of their business strategies. This awareness and the widespread public impact of mass-market retail design, including both the buildings and the products sold within, should be good news to the architectural community and everyone else as well.

—George M. Hutchinson, AIA  
Minneapolis

## Freedom ain't ringing here

Thank you for your continuing insightful news pieces in ARCHITECTURAL RECORD. As much as you have commented in the past on the Freedom Tower, I would appreciate your more fully addressing the influence the design has, and will have, on this country, by expanding on the proposed building's relation to its urban context, as well as the impact that will be felt throughout the country, as the name implies a link to our fellow citizens.

In the recent piece on the topic ["Redesigned Freedom Tower will be sleeker, safer," August, 2005, page 23], I see nothing that relates to a master work. What I do see is an overly cautious, extremely conservative skyscraper that appears more a reflection of the business and financial world that the Twin Towers once represented. Now, I want the moniker of "Freedom Tower" removed as an association to this edifice of power, as I see nothing in it that relates to me, my country, or my fellow citizens.

Where is the boldness, the frontier spirit, the character that is characterized by the people of this country? How does this reflect the tragedy of four years ago? What distinguishes this monolith from any other skyscraper, except that its size

dwarfs the surrounding buildings of Wall Street? Why is there not more vision in the design—considering the local, national, and worldwide influence a multitude of architects might offer—in this dumbed-down version?

—Vernon Abelsen, AIA  
Via e-mail

## A memorial makes the grade

Suzanne Stephens did a good job reviewing this Memorial to the Murdered Jews of Europe [July 2005, page 120]. We should not destroy the environment to remember those murdered. Did we not learn anything from the destruction of war besides lives lost? Think about the buildings and environment destroyed.

A park of trees, one for each person lost, in a repetitive grid pattern would have been more fitting. Trees would have contributed to the environment and replaced the gardens that used to exist in this area. To remember life, we should celebrate life and the environment, not destroy it.

—Dan Lawrence, AIA  
Via e-mail

## Not good enough for all

I was extremely disappointed to see your inadequate description of accessibility in Eisenman's new memorial featured in the July issue. ARCHITECTURAL RECORD conveniently downplayed the fact that the memorial is significantly inaccessible for visitors with a disability. As stated in David McHugh's Associated Press article titled *Germany to Dedicate Holocaust Memorial*, "... wheelchair users can use 16 of its many rows." Considering the abundant pathways in the project, that number is both inadequate and deplorable. Your article heralds the project as one of abstract remembrance and as a traverse point for all those in Berlin, both as inhabitants and visitors.

However, it is not a fully inclusive project. I realize the codes for accessible design in America are more stringent than most countries. However, as an American architect, Eisenman should have taken into account the principles of the Americans with Disabilities Act and created an urban memorial which considered the experiential qualities of all visitors. It seems severely ironic that a memorial to a time period of social segregation and demographically selected massacre is exclusive to many of its visitors.

—Danielle S. Willkens  
Springfield, Va.

Suzanne Stephens replies:  
*I am sorry not to have been able to devote adequate space to the provisions for accessibility in the Memorial to the Murdered Jews of Europe. Peter Eisenman does indeed provide wheelchair access in 13 passages, which have a maximum slope of 8 percent, and are scored with tracks in the paving to allow wheelchairs to comfortably roll through. In addition, a glass pavilion (mentioned in the text but not shown in the photos) contains an elevator to take the disabled down to the exhibition space. I did not, during my several visits, find any problems with these means of access.*

## Corrections

In the August editorial, president of the U.I.A. Suha Ozkan's designation as Honorary FAIA was not noted. The Dates & Events listing for the Sheila C. Johnson Design Center at Parsons did not specify that the Dia:Beacon was a project of OpenOffice, in collaboration with artist Robert Irwin. The image shown is a rendering by Jessica Stockholder in collaboration with OpenOffice.

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GreenSp

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## Calatrava designing massive tower in Chicago

Spanish architect and 2005 AIA Gold Medal winner Santiago Calatrava, AIA, on July 27 proposed a residential tower design for Chicago's lakefront that could become the tallest building in the United States. The 115-story-tall, glass-and-metal design is dubbed Fordham Tower. It spirals at 2 degrees per floor, swirling toward its rooftop mast, which is included in the overall height of 2,000 feet. "It's related to the skyline," explains Calatrava. "A building in the middle of the skyline like a flower in the prairie," he says. Not counting the mast, the building's height is actually 1,458 feet, a mere 8 feet taller than the current record holder, nearby Sears Tower.

The tower, part of the city's River East development, on the north side of the Chicago River, is much larger than the structures envisioned in the area's 1980s master plan. The tower's base will include an undetermined mix of retail and parking uses. 920,000 square feet will include



With its mast, the swirling Fordham Tower would be 115-stories tall, rising above the Sears and Hancock Towers.

200 to 250 condominium units and a similar number of hotel rooms.

Calatrava, also working on skyscrapers in New York; Valencia, Spain; and Malmö, Sweden, is well-regarded in the Midwest for his addition to the Milwaukee Art Museum. Several years ago, he produced a design for a lakefront pedestrian bridge in Chicago that the city has shelved. Experts

familiar with the local real estate market question whether the Fordham Company, the proposed building's developers, can successfully market the high-priced residential units in a luxury market many consider mature.

Previous schemes to break the Sears Tower's lock on the city's tallest-building title have repeatedly stumbled, most recently when Donald

Trump reduced the height of his Trump International Hotel & Tower in the wake of the September 11 attacks. Trump's project is currently under construction and will be the city's second-tallest tower at 1,360 feet, including its spire.

Completion of Calatrava's tower is scheduled for 2009, pending city approval. *Edward Keegan*

## Drawing Center and Freedom Center could both soon be out at Ground Zero



Rendering of Snøhetta's cultural complex.

ter complaints from family groups, "request for appropriateness" from Governor George Pataki, an attack from the Uniformed Firefighters Association (UFA), and an ultimatum from the Lower Manhattan

Development Corporation, the status of Ground Zero's cultural center tenants is in doubt.

Families and others, including members of the World Trade Center (WTC) Memorial Foundation board, have assailed The Drawing Center and International Freedom Center (IFC) for potentially presenting offensive or "anti-American" exhibitions at Ground Zero [RECORD, August 2005, page 26]. In response, LMDC chairman John C. Whitehead said on August 11 that the IFC would have to present exhibition plans to the LMDC

board on September 23 for approval. On July 27, the UFA sent a letter to the Memorial Foundation saying the IFC's presence would "strongly diminish" firefighters' sacrifices on the site. But some, like the Lower Manhattan Cultural Council, which supports local artists, feel that removing the organizations would be censorship.

The two organizations, despite their stated opposition to limitations on content, still appear ready to stay for now. An IFC statement in early August said, "We remain fully and enthusiastically committed to the project and location." Fraser Seitel, a spokesman for The Drawing Center, in

SoHo, acknowledges that its officials "are looking at other options, on the possibility that The Drawing Center won't be invited" downtown. But he says the gallery has not decided to leave Ground Zero, and hopes to remain welcome. Still, he adds, "The Drawing Center, as a cultural institution, has to stand for artistic freedom."

Snøhetta, whose design for the cultural complex was unveiled in May, might reduce the building's size by about 30 percent. Firm principal Craig Dykers says the reduction is meant to meet budget constraints and to maintain enough distance from the voids of the WTC Memorial. *Kevin Lerner*

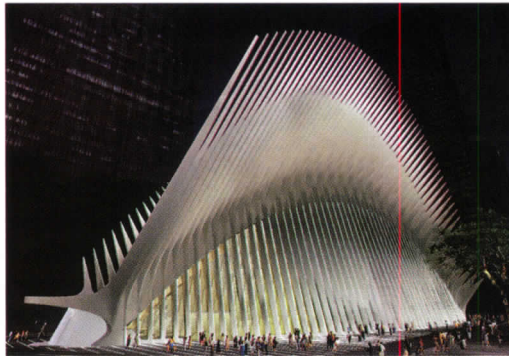
## Record News

### Updated plans approved for World Trade Center transit hub

Just days after unveiling renderings for a Chicago skyscraper, Santiago Calatrava, FAIA, on July 28 revealed plans for his World Trade Center transit hub that are both more refined and more security-conscious than his original design. The new scheme, shown at a presentation to the Port Authority of New York and New Jersey's Board of Commissioners, slightly reduces the size of the station's exterior, decreases the amount of glass to be used, and includes structural redundancies such as freestanding interior columns. The station, expected to cost about \$2.2 billion, was approved at the

meeting. Groundbreaking will occur on September 6.

Calatrava presented his first plans for the hub, which will be located on the eastern side of the World Trade Center site, in March 2004. Those plans, which maximized



The "oculus" will include more steel and less glass.

natural light entering the underground station, included a soaring, winglike metal-and-glass entrance structure rising more than 200 feet into the air. Its massive, ribbed-concrete interior comprised a grand entry hall, two mezzanine levels, and track levels. Those core elements remain essentially the same.

Exterior changes, largely intended to minimize damage in the event of a bombing, include twice as many steel columns supporting the "oculus," or entrance canopy. Glass between those columns has been removed after they intersect at the structure's apex. The oculus's length was reduced to 330 feet from 360 feet, and two large, horizontal steel protrusions from the structure's ends have been added.

Interior changes include a hardening of the hall's base, removal of a pedestrian corridor under

Church Street, and the addition of six to eight freestanding support columns, to be made of a steel-and-concrete composite. These columns meant to better support the structure and minimize damage in an attack, produce a mezzanine roof that undulates, rather than forming a single, gentle arc. Concrete ribs above, notes the architect, will be rounder and more elegant.

The recent changes help further develop what was a preliminary plan. "It is the same project, it is just more mature," notes Calatrava. The project is expected to be completed by 2009, will serve PATH and New York City subway trains and will likely support rail links to local airports and the Long Island Railroad. Originally slated at \$2 billion, the station's cost now includes another \$221 million for slurry-wall improvements and the hardening of the hub's east-west corridor under Fulton Street. The hub's design team also includes STV Group and DMJM + Harris. *Sam Lubell*

### Architect's lawsuit over Freedom Tower moves forward

Judge Michael B. Mukasey of Federal District Court in Manhattan ruled on August 10 that Massachusetts-based architect Thomas Shine could proceed with his lawsuit against architect David Childs, FAIA. The suit, originally filed in November 2004, alleges that, for his original design for the World Trade Center Freedom Tower, Childs, a principal at Skidmore, Owings & Merrill (SOM), copied a skyscraper design that Shine had developed while a master's student at Yale Architecture School. Shine had

presented the idea, a twisting tower with a faceted facade, called Olympic Tower, to Childs in the fall of 1999.

In March, SOM had filed a motion to dismiss the case, claiming that Childs had not copied Shine's design, and that both Olympic Tower and an earlier design, called Shine 99, were unoriginal and ineligible for copyright protection.

In his ruling, Mukasey said that some "might find that the Freedom Tower's twisting shape and undulating diamond-shaped facade make it

substantially similar to Olympic Tower, and therefore an improper appropriation of copyrighted artistic expression." Still, the judge said, "It is possible, even likely, that some ordinary observers might not find the two towers to be substantially similar."

The Freedom Tower design was changed on June 29, but according to the court, "because defendants' original design for the Freedom Tower remains in the public domain, Shine's infringement claim stands."

SOM spokesperson Elizabeth

Kubany says that three of Shine's tower images, thrown out of the case because they had been doctored, were "clearly an attempt at deception." She calls the appearance in the suit of Shine 99, also thrown out by the judge, "another attempt by Shine to make a case where there is none."

Shine says the three pictures were unintentionally switched, and that the Shine 99 project was a relatively insignificant part of his case. "We're very pleased that the case is moving forward," he says. *S.L.*

### Goldman Sachs will move to Ground Zero after all

After months of looking elsewhere for office space, Goldman Sachs has decided to build its \$2 billion headquarters at Ground Zero after all, according to a report on August 11 in *The New York Times*.

On April 4, the financial firm halted the planned construction of its 40-story glass building, located just northwest of the 1,776-foot Freedom Tower. The company had been worried about a now-scrapped plan to submerge West Street near the building's entry. Goldman had also expressed concerns about financial incentives and the state of other projects at Ground Zero. The new tower, which is being designed by Pei Cobb Freed

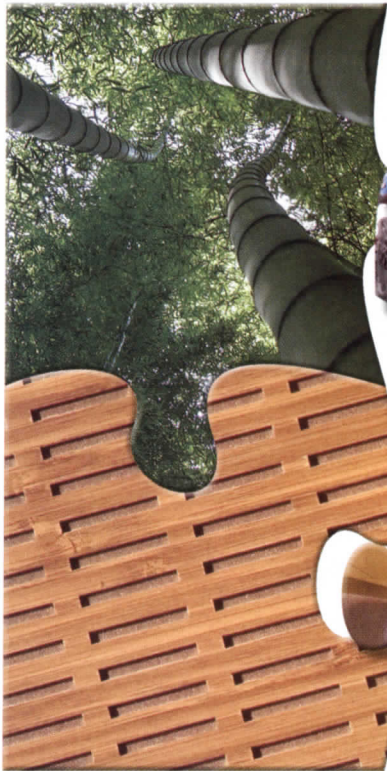
Architects, sits on the last vacant commercial parcel in Battery Park City.

Goldman officials could not be reached for comment, but according to the *Times*, the firm had been enticed back to the area with a slew of financial incentives, including at least \$150 million in new city and tax credits, as well as \$600 million of new Liberty Bonds to add to \$1 billion in already-issued bonds. The move gives Lower Manhattan, whose viability as an office center has been facing recent scrutiny, a boost. But some have said the price is too high, pointing to what they call exorbitant tax breaks for the company. *S.L.*



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### Plans for New York's Moynihan Station finally moving forward

After years of false starts, it appears the development of New York City's Moynihan Station has finally gotten under way. On July 19, the Empire State Development Corporation, which is responsible for promoting economic growth in the state, announced it had selected a team of developers and unveiled a new design for the project. It will be located in the Farley Post Office on 8th Avenue, just across the street from the present Pennsylvania Station. That station occupies the site of McKim, Mead and White's original Beaux-Arts Pennsylvania Station, which was demolished in 1963.

The development team for the \$818 million transportation, office, commercial, and residential complex will be The Related Companies and Vornado Realty Trust. Its architects will be New York-based James Carpenter Design Associates, with Hellmuth, Obata + Kassabaum

(HOK)'s New York office. Skidmore, Owings & Merrill, whose partner David Childs devised an early scheme for the project, will be a consultant. Construction is set to begin next year, and completion is slated for 2011.

The new station, named for the late New York Senator Daniel Patrick Moynihan, a vocal proponent of the project, will include 300,000 square feet for a soaring, vaulted glass station space that will respect the post office's grand Beaux-Arts architecture. The post office was built in 1910, and was also designed by McKim, Mead and White.

"This is a second chance to recapture the extraordinary station that was once Penn Station," said Empire State Development chairman Charles Gargano. The post office's facade will be renovated, while any new interior elements will likely be marked in limestone and terra-cotta, says James Carpenter, who notes

the team hopes to receive historic-preservation tax credits for the project. Eleven boarding platforms will service Long Island Railroad, New Jersey Transit, and possibly some Amtrak passengers.

The large, undulating glass-and-steel canopy will allow daylight into the space. Carpenter says this will help recreate the awe-inspiring sense of scale that passengers once felt when they entered Penn Station. Natural light will also be filtered down to the tracks via glass "moats" surrounding the building, and through light tubes within the space's large steel columns. The space will be lined with



An undulating glass roof will cover the space.

ticketing and customer-service booths, shops, and restaurants.

The new scheme does away with David Childs's preliminary scheme for the station, whose sculptural steel-and-glass canopy was dubbed "The Potato Chip." It occupied the "intermodal" space between the current post office and a large warehouse and sorting facility to its west. Carpenter says that design was removed, in part, because the program has shifted to retain much more of the post office than was originally planned. Entry into the new station will take place not via the post office's grand stairs, but through smaller openings on 8th Avenue, 9th Avenue, and 31st and 33rd Streets. The intermodal space will likely now serve as a check-in area for passengers planning to travel to local airports.

The Moynihan Station was first proposed in the early 1990s, and designs were first proposed in 1999. The project has been hampered by numerous delays, caused by, among other things, funding debates in Congress, indecision on the part of the U.S. Postal Service, and financially strapped Amtrak's refusal to move from Penn Station. Amtrak, which owns Penn Station but would have to pay rent at Moynihan, will keep its facilities in Penn Station, says Amtrak spokesman Clifford Black. He notes no current plans to improve its present facilities.

The project will also include 850,000 square feet of commercial space, much of it located in the large warehouse building on the west side

of the Farley Post Office, 250,000 square feet for the existing post office, and air rights for up to 1 million square feet of housing, likely on the northeast corner of 8th Avenue and 32nd Street, says Carpenter. New York Governor George Pataki noted that this team's plan to locate residential development outside the Farley Building itself made it more appealing, so as not to hurt the building's character.

Construction will be paid for through \$105 million in Federal Railroad Administration funds, \$56.8 million in New York State funds, including \$35 million from the Metropolitan Transportation Agency (MTA). The Moynihan Development Corporation, made up of representatives from the city and state, will be paying \$230 million for the building. The developers will make an up-front payment of \$150 million at closing, with about \$124 million coming in successive years. The city will contribute \$133 million capital funds, plus \$25 million already committed. The Port Authority of New York and New Jersey will pay \$150 million. The New York Department of Transportation will contribute \$64 million in the form of Congestion, Mitigation, and Air Quality (CMAQ) funds.

New York Mayor Michael Bloomberg, who recently lost his battle to build a Jets stadium in the area, now appears to be focusing on the Moynihan project as a catalyst to development on the Far West Side. This is a 60-block zone that extends from the Moynihan Station site to the Hudson River. He said the area, recently rezoned to allow significant commercial and residential development, will be "teeming with life-energy and activity every day." Answering concerns that the Far West Side could draw resources from Ground Zero, he said, "There is no competition with any other areas. Enhancement of this neighborhood helps the development of all neighborhoods." S.L.



The Beaux Arts-style Farley Post Office will become a train station. "Light moats" along sidewalks will bring natural illumination underground.

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## Record News

### Inspiration or folly? Iraqi-born architect planning Baghdad hotel

Only a serious optimist could build in Baghdad these days. Enter Dr. Hisham Ashkouri, AIA, a Baghdad native, who studied architecture at Baghdad University. Ashkouri left Iraq in 1972 to pursue more opportunities, starting his own firm, ARCADD, in Newton, Massachusetts, in 1986. He didn't return to the country until after the war in 2003, when the 57-year-old architect saw his old neighborhood in shambles. Familiar shops and friends' homes had been destroyed, roads were impassible, and sewers overflowing. Much of the city looked this way. "It was so painful to see," says Ashkouri, who vowed to help rebuild the country and take advantage of the opportunities presented by a free Iraq.

His promise may be close to reality, or at least that's how Ashkouri sees it. He has developed three major plans for the city. One is a mixed-use downtown development called Tahrir Square. The second is a \$115 million high-rise hotel and movie project called the Sinbad Hotel complex. The largest is a \$13 billion Central Business District master plan for cultural, educational, medical, and tech development along the Tigris River.

The Sinbad, which will be located downtown or south of the city center, is the closest to moving forward, having recently received a promise of funding, says Ashkouri, by the Al-Senussi's, the former royal family of Libya. The family has approved giving him \$300,000 to pay for schematics. Local investors approved the plan in July, he says. The local government, though, has not yet approved the building.

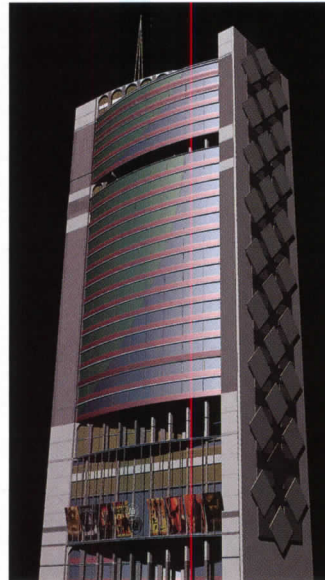
The Sinbad's design, Ashkouri says, will be a modern interpretation of ancient, local forms. Its arched colonnades, tentlike roof canopies, eight-point star patterning, and a protruding, curved facade echo vernacular forms, although the building still appears cut from the corporate-hotel mold. The building will also utilize the ancient Badgeer system, which employs large hollow shafts along the sides to allow hot air to escape. He says that, if built, the 32-story tower will be the largest steel tower in the city, where, because of the high cost of steel, most

structures are made of concrete. Now, says Ashkouri, most businessmen must rent apartments in order to do business outside the Green Zone.

Inside, the complex will include shopping, informal congregation spaces, and a cinema complex that he hopes will host Baghdad's first-ever film festival. Lobbies will include murals of Sinbad's seven voyages. Rooms will be brightly and colorfully

decorated, an aesthetic he says may be off-putting to Western tastes, but is necessary in war-torn Iraq. "You can't use a minimalist approach here. There's been too much sadness. We're trying to bring back life to a city that's experienced lots of repression."

Not surprisingly, the biggest added cost—almost doubling the price per square-foot—will be security. Ashkouri plans to erect a high perimeter fence around a large construction site. Armed guards and constant video surveillance will monitor the area. The final design, like the recently revised Freedom Tower in New York, will have a concrete base, although it will be ringed by a



The Sinbad Hotel complex will be located outside the Green Zone.

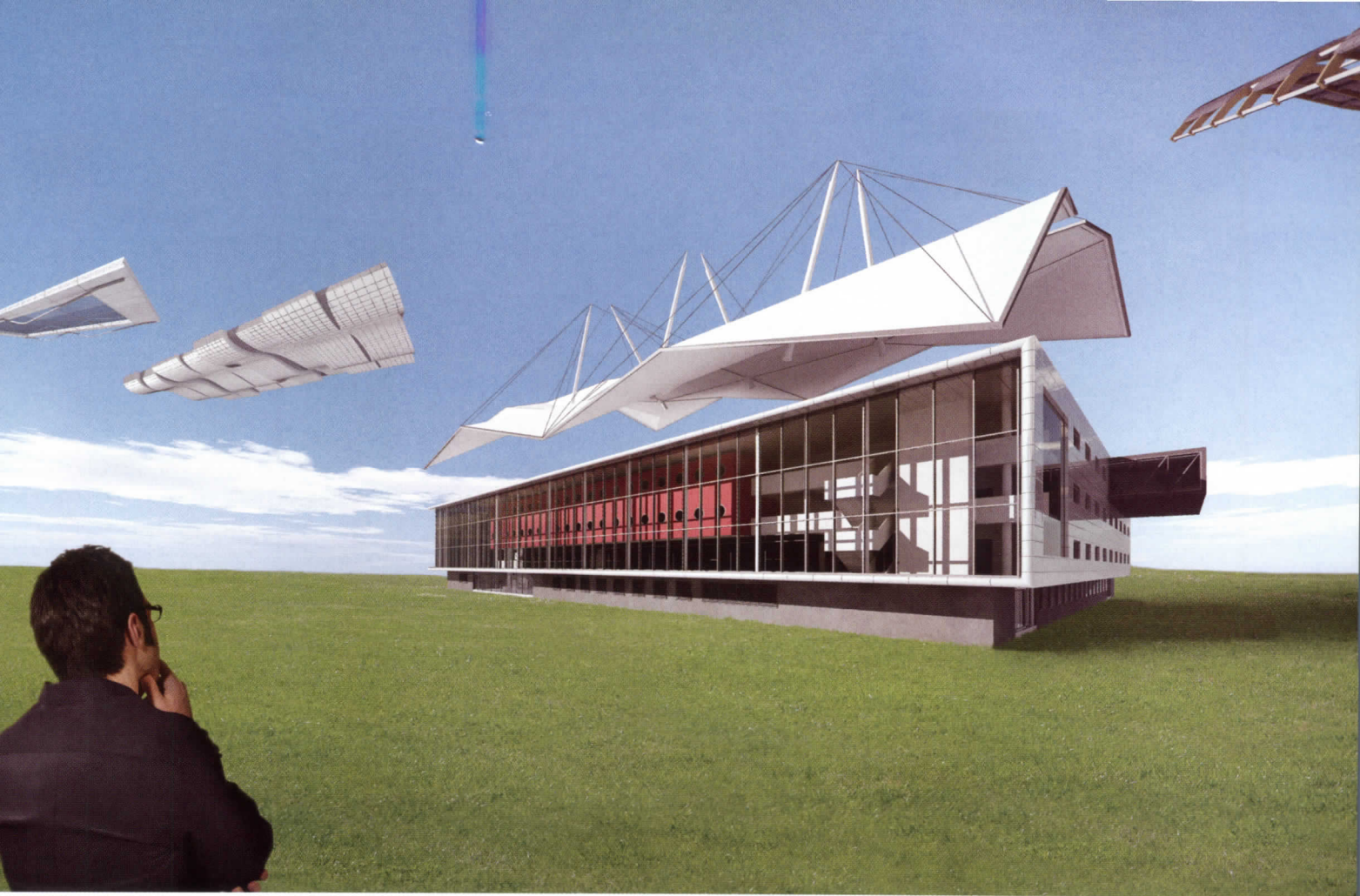
window-lined pedestrian corridor. Windows near the base will be bulletproof and blastproof.

"If we wait to develop here, we will be waiting forever," says Ashkouri, who believes this to be the first major private development outside the Green Zone since the war. "We have to rebuild the city ourselves, with private development, and it has to be sustainable." The idea of constructing a project like this is "not a pipe dream at all," says Manjiv Vohra, the C.E.O. of a major construction company working on projects in Iraq. For increased security, he recommends hiring Iraqi construction workers and keeping a low profile.

Ashkouri is nothing if not ambitious about rebuilding shattered cities. He is also developing a master plan for Kabul, Afghanistan, called the City of Light, a \$9 billion, 3-square-mile urban development just informally approved by the country's minister of urban development and housing.

He plans to put part of the proceeds for the Iraq projects into rebuilding his old neighborhood where he also hopes to establish an office.

"People think I'm crazy building here, but I don't care," he says. "If I didn't think this was possible I would have given up long ago." S.L.



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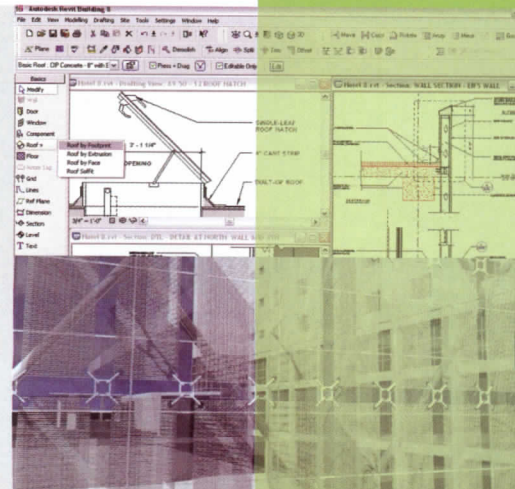
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## Record News

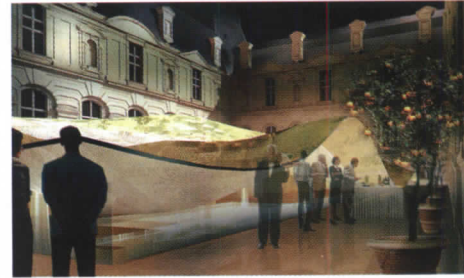
### Louvre to build new Islamic art gallery

The French have never been shy about marrying contemporary architecture to historic monuments. I.M. Pei proved this when his glass entry pyramid for the Louvre opened in 1989, and in July, French President Jacques Chirac announced another modern Louvre addition—a Department of Islamic Art.

The Louvre holds one of the most important Islamic Art collections in the world, and the adjacent Musée des Arts Décoratifs owns another 3,000 objects that have not been shown in public for more than 20 years. The two collections will come together in a two-story, 36,000-square-foot design by Milanese architect Mario Bellini and architect Rudy Ricciotti, based in southern France.

Bellini and Ricciotti were chosen in a competition that also included Zaha Hadid and Coop Himmelb(l)au. Their design will fill most of the ground floor of the Cour Visconti, a courtyard within the southernmost wing of the Louvre. A second underground level will be accessible from galleries created by Pei. A shimmering, undulating glass roof, made up of glass disks, will allow diffused sunlight to penetrate into the space.

The scheme also offers visitors glimpses of



The gallery's curving roof will be made of glass disk

the surrounding Neoclassical facades. It is, say the designers, "architectural integration without violence." It is also a very open design with no superfluous circulation space. Instead, linear benches are used to divide thematic spaces. Set to open in 2009, the \$67 million project benefited from a \$20 million donation from Saudi Prince Walid bin Talal.

The project has also been helped along by a chance to mix politics with culture. It will, according to Chirac, "remind the French people and the world of the important contribution Islamic civilization has made to Western culture." *Claire Downey*

### L.A.'s Ambassador Hotel to be demolished for school

On July 25, a Los Angeles Superior Court judge gave the Los Angeles Unified School District (LAUSD) the okay to demolish most of the famous Ambassador Hotel (below) on Wilshire Boulevard. The now-vacant property, which closed in 1988, will be used for a \$318.2 million, 4,200-student education complex.

The Spanish Mediterranean-style Ambassador, designed in 1921 by Myron Hunt, was a Hollywood icon. The Oscars were held there several times, and it was used as a location for films like *The Graduate*,



*The Fabulous Baker Boys*, *The Mask*, and *A Star is Born*. Robert F. Kennedy was assassinated there in 1968.

A suit filed last November by a coalition of preservation activists, including the Los Angeles Conservancy, contested an earlier environmental-impact report. The groups hoped that the district would consider a compromise preservation plan, which would place smaller learning structures around the building and allow the hotel to

be used for offices, teacher housing, and classrooms. LAUSD officials, who called the plan too expensive, argued that schools in the district are seriously overcrowded, with more than 3,800 area children being bused elsewhere each day. An LAUSD advisory committee met on July 20 to begin discussions on a Kennedy memorial at the site.

The campus design is being developed by Pasadena-based Gonzalez Goodale Architects, which was awarded the \$11.2 million contract last October. The project will recreate the four-story Ambassador facade, but with a contemporary look. The 24-acre project will include an 800-seat primary school, a 1,000-seat middle school, and a 2,440-seat high school. It will preserve the famous Coconut Grove nightclub, which will be used as an auditorium. The coffee shop will be reused as a faculty lounge, and the beam ceiling from the Embassy Ballroom will be salvaged and "reapplied" in the new library. Construction could begin as early as spring 2006 and be completed by September 2009. *J.T. Long*

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## Record News

### Transportation and energy legislation will impact architects

After long delays, Congress finally passed its energy and transportation bills in August. The impact on architects could be significant.

#### Transportation bill likely to benefit architects

The long-delayed, multiyear federal transportation bill that President Bush signed into law on August 10 provides substantial funding for projects involving architects. The new legislation, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), covers the 2005 through 2009 fiscal years. Authorizations total \$295 billion.

Architects seem pleased that SAFETEA-LU retains the program structure set by the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA). One key extended ISTEA feature is the "transportation enhancements" program, which sets aside 10 percent of funding for the Surface Transportation Program, a major federal highway aid category, for things like bicycle and pedestrian paths, scenic and historic sites, rehabilitating historic railroad stations, and other transportation facilities. Under SAFETEA-LU, the enhancements program is guaranteed more than \$3.2 billion over the 2005–2009 period.

"It's an important bill," says Jason Stanley, an associate partner at Skidmore, Owings & Merrill's Chicago office. "If the value of the public realm can be raised, that will enhance property values, and it will enhance commercial zones." But Stanley says the impact "depends on which state the work is in." He says the best potential is in states like Minnesota, which have formally adopted "context-sensitive design."

As with past transportation bills, lawmakers made sure to include pet projects. Washington, D.C.–based advocacy group Taxpayers for Common Sense says funding for all projects and earmarks in the law tops \$23 billion. Critics deride those projects as pork-barrel politics, but some items may be of interest to architects, such as \$3 million for renovations to Denver Union Station, \$1 million to build a bicycle and pedestrian trail in California's Contra Costa County, and \$9 million for "studies, design, and construction" of New York City's High Line Trail project.

The AIA was pleased the final bill included a \$2 million study, due by September 20, 2007, of how federal transportation spending affects localities' design, health, and safety.

#### Energy bill may boost efficiency standards

Although the newly enacted energy bill, signed by President Bush on August 8, doesn't provide nearly enough conservation incentives to suit environmental groups, the measure does contain provisions aimed at promoting energy efficiency, including \$1.3 billion in conservation and energy-efficiency tax-break incentives.

Among these incentives is a deduction for commercial buildings that cut annual energy and power consumption by 50 percent compared to American Society of Heating, Refrigerating and Air-Conditioning Engineers standards. For "building subsystems," the deduction would be 60 cents per square foot. Energy-efficient equipment includes interior lighting, heating, cooling, ventilation, hot water, and the building envelope, according to the congressional Joint Tax Committee. The bill also provides tax credits for contractors that build new

energy-efficient housing, and for homeowners who install solar power and fuel cells.

In addition, the energy law requires the Department of Energy to issue energy-efficiency standards for new federal buildings within a year. The legislation states that energy-use levels in new federal facilities must be at least 30 percent less than the ASHRAE standard or International Energy Conservation Code in effect when the building is constructed. It also says "sustainable design principles" should apply to "siting, design and construction of all new [federal] buildings."

The AIA applauds new provisions, such as a program to spur commercial use of photovoltaic energy, partly through a \$250 million authorization over five years. In addition, the AIA backed a provision calling for the Department of Energy to sign an agreement with the National Institute of Building Sciences to study whether the present voluntary standards and ratings for "high-performance" buildings "are consistent with the current technological state of the art." *Tom Ichniowski*



President Bush signs the long-delayed transportation bill in August.





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ASCE (the Ceramic Tile Manufacturers' Association of Spain), has called for entries for the fourth **Tile of Spain Awards of Architecture and Interior Design**. The competition was created to increase awareness among the architectural and design community of the multiple applications and benefits of ceramic and porcelain tiles produced in Spain.

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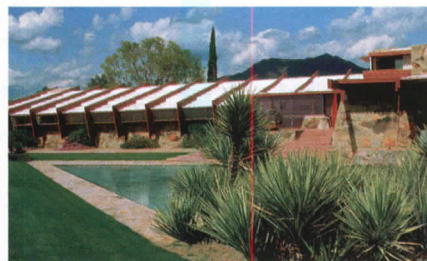
## Record News

### Frank Lloyd Wright Foundation slowly recovering from difficult times

In the past year, the Frank Lloyd Wright Foundation, a nonprofit organization established in 1940 to preserve the contributions and ideas of Wright, has experienced its share of upheaval. Hurt by internal conflict and a lack of direction, the foundation's School of Architecture, which has an average enrollment of 12 (within a limit of 24), lost a number of faculty, students, and its dean. The foundation board of directors, controlled for

major decisions. Another change establishes 80 percent of board seats for public trustees and 20 percent for the fellowship, to allow for more outside board membership. Before, fellows could hold a majority of seats.

Tony Puttnam, a Wisconsin-based architect who has been involved with Taliesin for years, notes, "We could use new energy to restore the school and develop a nucleus for interesting, creative



Taliesin West, the foundation's headquarters.

work." Effie Casey, a senior fellow at Taliesin West and former board member who attended the June 12 meeting, says the fellowship "recognizes this as an opportunity to open doors for more participation by the public."

In July, the foundation announced that Victor Sidy, who in 2000

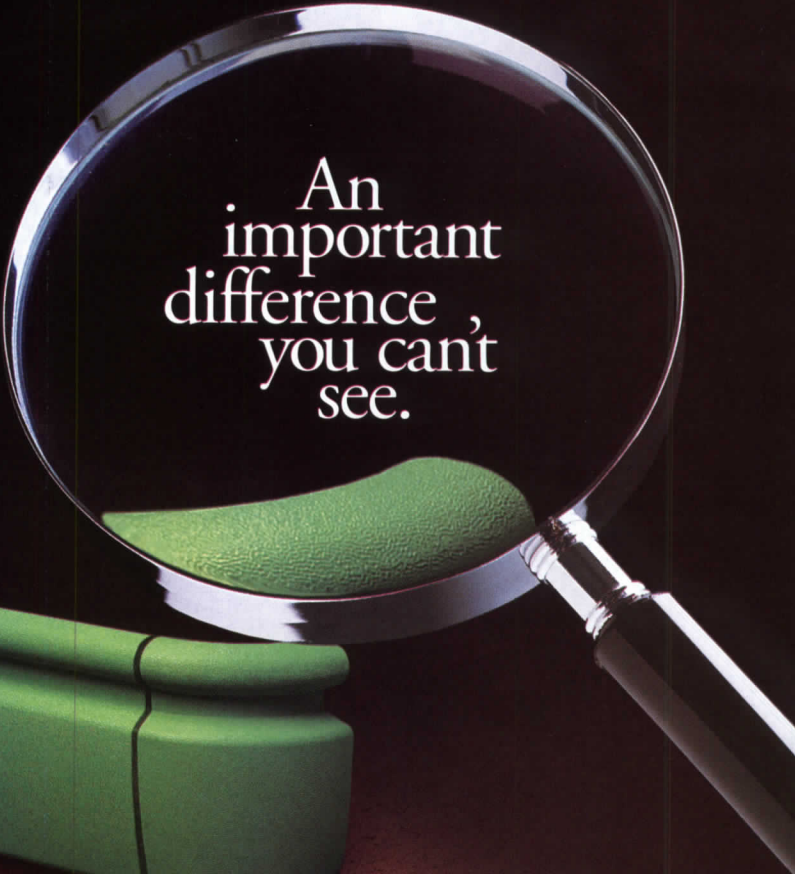
received his master's of architecture from the Frank Lloyd Wright School of Architecture, had been chosen to serve as dean of the school. Sidy, says the foundation, will work to develop a more defined updated curriculum, and to improve transcript creation, among other items. After concerns that the National Architectural Accrediting Board (NAAB) might revoke the school's accreditation, in August the NAAB renewed the school's accreditation. According to Hart, the NAAB will return in a year and a half for a follow-up.

many years by the Taliesin Fellowship, a residential organization of Wright disciples formed in 1932, also this year ousted C.E.O. James Goulka. Although the foundation had been operating in the black for more than a decade, more than \$80 million is now needed for the maintenance and restoration of its aging properties, Taliesin in Spring Green, Wisconsin, and Taliesin West in Scottsdale, Arizona, and tourism and donations have been on the decline since 9/11. Goulka's efforts to impose fiscal restraint proved unpopular. The 28 senior fellows, who mostly live on the Taliesin campuses, were wary of his aggressive spending cuts and a plan for more public participation.

But now, according to foundation officials, there is renewed hope for the organization. On June 12, after a year of self-examination, the board of trustees and fellows met at the foundation's Spring Green offices to work out new language in the foundation's bylaws. One key change redistributes power by removing the fellowship's veto power over most

received his master's of architecture from the Frank Lloyd Wright School of Architecture, had been chosen to serve as dean of the school. Sidy, says the foundation, will work to develop a more defined updated curriculum, and to improve transcript creation, among other items. After concerns that the National Architectural Accrediting Board (NAAB) might revoke the school's accreditation, in August the NAAB renewed the school's accreditation. According to Hart, the NAAB will return in a year and a half for a follow-up.

In addition, the foundation, which has a staff of 70, announced in August that it is streamlining its operations, and has hired a Chicago-based executive search firm to find a new C.E.O. Beverly Hart, who currently holds the job, says the new C.E.O.'s goal will be to raise \$250 million in the next decade to pay for restoration of the properties, establish an endowment, and build a new archive and visitors' center in Scottsdale. *Allison Million*



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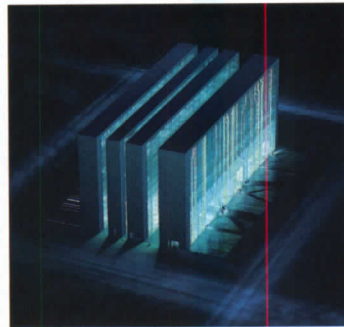
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## Record News On the Boards



### Data center to resemble microchip

Urbanus, based in Shenzhen and Beijing, China, has won an international competition to design "Digital Beijing," a key building for the 2008 Beijing Olympics. The structure, adjacent to Herzog & de Meuron's National Stadium and PTW's Swimming Center, will be a regional communications hub and the games' data command center. It will also house a museum to the digital age and an exhibition hall. It is the first landmark Olympic com-

mission for a Chinese firm.

A group of New York-based Chinese architects—Liu Xiaodu, Meng Yan, Wang Hui, and Zhu Pei—founded Urbanus in 1999, later returning to China. The architects wanted the project to be a built representation of our time, much as Walter Gropius's 1911 Faguswerk shoe factory was for the industrial era. "If the industrial revolution impacted Modernism," asks Zhu, "what will happen in the digital age?"

The building's elevations and shape will allude to the form of a computer motherboard. Four main blocks will emulate the structure of a computer hard drive. A ground-floor public space, crisscrossed by bridges, will be emblazoned with electronic projections. The western facade will recall a barcode, while an elevation facing the Olympic Green will include tentaclelike, image-projecting LED panels. Construction will begin in late 2005, with completion set for 2007. *Daniel Elsea*

### Reflections, reflections, reflections ...

Designing for a site that lacks architectural context can produce either the best or the worst architecture. In designing for Digital Media City, a technology park under construction on the largest open tract of land in Seoul, South Korea, German-based Barkow Leibinger Architects created a building that waits to see what future neighbors will look like before making its own architectural statement.

Designated DMC B6/2, the building will contain three levels of showrooms for heavy machinery and six floors of speculative office space. Frank Barkow, reached via e-mail at his office in Berlin, describes DMC B6/2 as "self-referential," because its facade will be composed of mirrored glass that folds in and out through a depth of 8 inches, producing an effect like a shattered crystal or kaleidoscope. Even its concrete-enclosed stair tower, clad in zinc, will be highly reflective.



"Any adjacent buildings will be appropriated visually into fragmented pixels onto our building's surfaces," Barkow writes. "Even the worst adjacent building will look mesmerizing." Presumably the architects of these adjoining buildings will decide whether this optical trick is the sincerest form of flattery. Construction on DMC B6/2 began in June and should finish in late 2006. *James Murdock*

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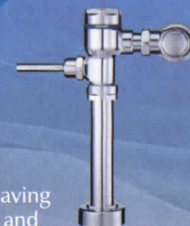
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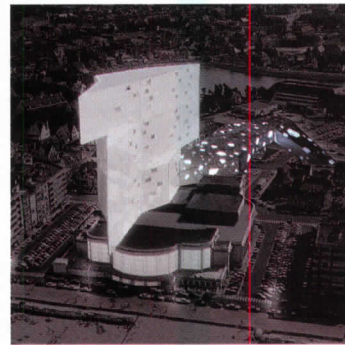
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## Record News On the Boards

### A gambling tower in Europe? Holl designing casino in Belgium

Art, architecture, and gambling will soon come together in one of Europe's first casino towers. In July, New York-based Steven Holl Architects won a city-sponsored



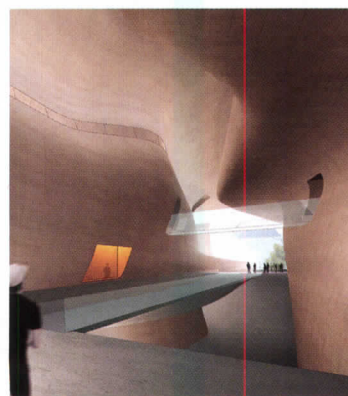
competition to restore and expand the Albert Place Casino in Knokke-Heist, a popular resort town on the North Sea, about 50 miles from Brussels. A René Magritte mural, *The Ship Which Tells the Story to the Mermaid*, provided the inspira-

tion for the tripartite design, centering on a 20-story, sail-like hotel and apartment tower. The adjoining early-Modernist casino, built in 1930 by Belgian architect Leon Stynen, will be restored and modernized. A convention center resembling a mermaid's tail will extend inland.

The \$185 million complex will include shops, art galleries, restaurants, pools, an auditorium, a spa, and an observation deck. All rooms in the thin hotel tower, with a glass curtain wall, will have sea views. The convention center's glass exterior will be covered by a metal wall perforated with hexagonal holes, meant to create interesting shadow effects.

The complex will interact with the city through a pedestrian space called Casino Square. The city and developers will shortly put the resort out to bid, and construction will begin soon after. *Gregory Hafkin*

### Warsaw Jewish museum explores resiliency



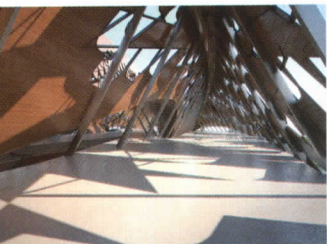
Uprising Memorial, the 138,000-square-foot building is a transparent cube of backlit glass, giving the impression of broken crystal. Entering the main hall, visitors are flanked by limestone masses curving upward like the walls of a canyon. Mahlamäki explains the contrast as "a dialogue between fragile external walls and an interior made of more resistant materials."

In June, the design of the Museum of the History of Polish Jews in Warsaw was awarded to Finnish architects Ilmari Lahdelma and Rainer Mahlamäki. Competing firms included Studio Daniel Libeskind, Eisenman Architects, and Zvi Hecker.

The museum site was the center of Warsaw's Jewish community until 1939. Sitting at the end of a long plaza opposite the Warsaw

The initially constricting passage, which opens to a view of the greenery outside, is inspired by the story of the Jews' exodus from Egypt through the parted Red Sea. The adjacent park's trees, which form an approach below the main entrance hall, celebrate Jewish life in Poland before the Holocaust. The museum's central location will facilitate interaction among diverse groups of visitors. Museum officials project between 250,000 and 500,000 visit each year. *Larissa Babji*

# News Briefs



The bridge will be composed of overlapping space frames.

**Zaha Hadid designing main pavilion for 2008 Expo** Zaha Hadid has been chosen in July to design the main pavilion of the 2008 International Exposition in Zaragoza, Spain. The pavilion will consist of a multilevel bridge that spans the Ebro River, linking the city to the Expo site.

Hadid's pavilion's design will be composed of four overlapping diamond-section space frames, which curve and widen as they span the river, "like a gladiola blossom," the juror commented. They will be

covered by what Hadid describes as "a complex pattern of simple overlapping shingles." *David Cohn*

## AIA Compensation Report shows gains

The AIA's 2005 Compensation Report, released in July, revealed that salaries for U.S. architects increased at a faster rate than those of other professions between 2002 and 2005. Architects' pay grew by about 10 percent over that time, or at an average yearly rate of about 3.3 percent. Jobs within the rest of the economy grew at an average rate of 2.5 percent. Architects' salaries have now reached an average of \$62,600, says the report.

Still, salaries for architects grew less than they have in the recent past. Between 1999 and 2002, architects' salaries grew at a 5.1 percent yearly rate, and from 1996 to 1999 the rate was 5.3 percent. According to the report,

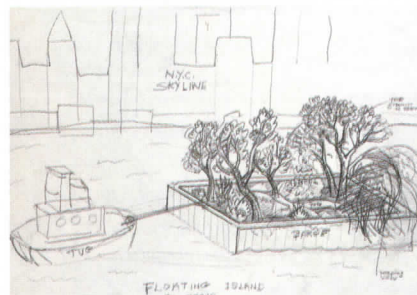
salaries have grown most at larger firms. Average compensation for firms of 250 or more now stands at \$74,200, with figures decreasing in proportion to firm size. Salaries at firms under 10 average \$59,400.

Architects' salaries still pale in comparison to the most lucrative professions. According to the U.S. Bureau of Labor statistics, the mean yearly income for architects in 2004 was \$66,230, compared to \$108,790 for lawyers and \$137,610 for physicians and surgeons. At the other end of the scale, artists' mean annual income was \$37,490. *S.L.*

## Floating Island will round Manhattan

Creating a new island in the middle of New York City doesn't require a landfill, just a little ingenuity. For nine days in September, a 48-foot tugboat towing an "island" on a 30-by-90-foot barge will partially circumnavigate Manhattan on the Hudson and East Rivers. The brainchild of the late earth-

work artist Robert Smithson, most famous for the *Spiral Jetty* in Utah, the flat-deck barge will hold earth, shrubs, rocks, and seven specimens of native trees rising 30 to 35 feet. Smithson drew the concept for *Floating Island to Travel Around Manhattan Island* in 1970, but budget and permit issues derailed the plan, and he died three years later. The project, budgeted at around \$150,000, is a collaboration between the Whitney Museum of American Art and New York-based arts group Minetta Brook. It will run from September 17 to 25, after which the trees will be replanted in Central Park. *G.H.*



Smithson's sketch of the Floating Island.

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# News Briefs

## Army begins its largest-ever privatization project

The U.S. Army has begun work on the military's largest-ever privatization project, on the island of Oahu, in Hawaii. The \$2.2 billion Army Hawaii Family Housing complex, developed by Actus Lend Lease, will include the construction and renovation of about 8,000 homes on a 1,702-acre plot.



### Individual models, not cookie cutters.

Its privately developed, individually styled homes, enabled by the 1996 Military Housing Privatization Act, represent a major departure from the military's cookie-cutter models devel-

oped since the 1950s, says Chris Sherwood, Actus senior vice president. The project will include the world's largest solar-powered community, providing about 30 percent of the area's electrical needs through photovoltaic cells. Other green elements include solar hot water and electronic energy metering. Families will begin moving in next summer, with 5,300 new homes planned for completion at that time. *S.L.*

**Richard Solomon dies** Richard Jay Solomon, director of the Graham Foundation for Advanced Studies in the Fine Arts since 1993, died on July 14 at age 62. The Chicago-based Graham Foundation has fostered a public dialogue about architecture through its grants and programming since its inception in 1956.

In 2003, Solomon, also a well-respected architect, expanded the foundation's activities to include an



### Viñoly's Kennedy Center Plaza plan.

ideas competition for a 21st-century Lakefront Park in Chicago. The resulting exhibition and publication displayed more than 100 concepts that challenge and reconsider the city's premier open space. *E.K.*

### Kennedy Center plaza

**derailed** Cuts in the recently passed federal transportation bill have halted plans for a new John F. Kennedy Center Plaza, designed by Rafael Viñoly, FAIA. The \$650 million

project, built over existing roadways, would create a four-block sweeping pedestrian plaza lined with pools, flanked by two new glass-and-steel buildings. One building would house rehearsal and office space, the other a performing arts educational center. The project was counting on \$400 million from the reauthorization of the federal highway and transit bill. But lawmakers eliminated plaza funds due to budget constraints. *Tony Illia*

### ENDNOTES

- After six months of almost continual gains, architectural billings in June while still up, showed signs of slowing according to the AIA's July *Work on the Boards* survey. While almost 23 percent of firms reported increased billings compared to May levels, 14 percent of firms reported a decline.
- The National Building Museum is awarding the U.S. Green Building Council with the Henry C. Turner Prize for Innovation in Construction Technology.
- OMA is building a mixed-use tower in Louisville, Kentucky.

slate



unfading green



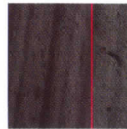
unfading mottled green & purple



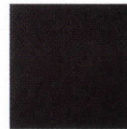
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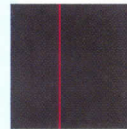
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summit gray



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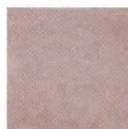
black lace



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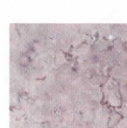
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# For and about the emerging architect

## archrecord2

DEPARTMENTS

This month in Design, archrecord2 hops the pond to speak to Surface Architects, a young London-based firm creating contemporary and vibrant architecture not only in new locations around the city, but also within existing, older buildings. In Work, we come back to the States to have a closer look at an amber-colored addition to the streets of Los Angeles. The complex, vortex-shaped structure is a stunning homage to architecture and film.

### Design

#### Beyond Surface's bold exteriors



Surface Architects has many things going for it. One is fortuitous timing. The firm has been busy during a period when England's central government has sanctioned the funding

of new buildings for university campuses around the country. Accolades have brought the team into the public eye. It was recently added to the U.K.'s "40 Under 40" list, which is an awards program for young architects. However, forgoing all the hype that surrounds graduate-school theory-speak and appearances in tabloid party pages, this young practice, led by its directors Richard Scott (above left) and Andy MacFee (above right), concentrates on creating engaging architecture.

Scott, who studied architecture at both The Bartlett at University College London and SCI-Arc in Los Angeles, caught his first big break with Andrew Zago, a professor from his years in Los Angeles. At the time, Zago was a visiting professor at Cornell University and asked Scott to join him when he was given an in-house commission to build a design studio for the Aerospace Engineering Department. The project called for a workspace that emphasized synergy and creativity in mechanical design. Scott recalls, "It was by far the most interesting and groundbreaking project I'd been involved with up to that point."

After returning to London and joining Alsop Architects, Scott formed a collaborative—which he called Surface—in 1996 with fellow architect Kristen Whittle. Since both Scott and Whittle had attended SCI-Arc, they found themselves asking ever more theoretical questions regarding architecture. The pair decided to bring on board the services of philosopher Jeremy Weate. "It was pragmatic to engage the services of a philosopher," explains Scott. "With all our questions, Whittle and I were more and more tied in knots. We educated him in architecture and he educated us in phenomenology." This would prove to be a wise decision—their initial project won first prize in a

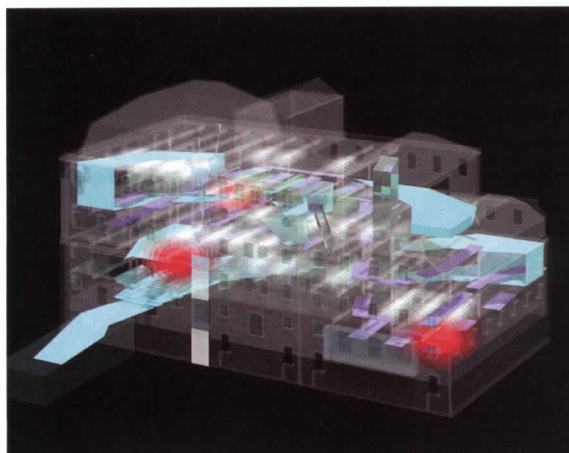


**Lockkeepers Cottage Graduate Centre for Queen Mary University, London, 2005**

*This renovation and expansion includes seminar and work spaces,*



*and a common room. The project is a radical departure from other buildings on campus, and the architects were pleased that it was accepted by planning authorities.*



**Razorfish Headquarters, London, 2001**

*The firm's competition-winning scheme for a 50,000-square-foot office expansion included space for 500 employees. Although the design was completed, the Silicon Alley company went bust and the project was never realized.*

[archrecord.construction.com/archrecord2/](http://archrecord.construction.com/archrecord2/)

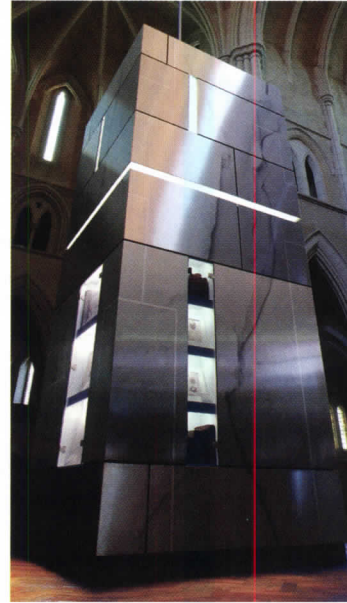
**Birkbeck College, Center for Film and Media Studies, London, 2005**

*In this state-of-the-art auditorium, the architects explore the limits of what a cinema's environment could be. The projected date of completion is March 2006.*



**The Ambiguous Object—Queen Mary Medical School Library, London, 2004**

*The firm's first commission on this campus is a dramatic yet not obvious elevator for wheelchairs to the basement level in this Gothic Revival church-turned-library.*



**Augustine Road House Renovation, London, 2002**

*With a small budget and a client with no preconceptions, the architects were able to give a three-story Victorian home a Modern makeover. Much of the attention was given to the kitchen renovation, and the result is a bright, multicolored, and sculpted space.*

**Japanese residential design competition.**

In 1999, after a year teaching a course on theory and history with Weate and three years at Alsop, Scott decided to focus on Surface Architects. In the firm's new incarnation, Scott states, "I did not want to be a career academic, so I wanted this to be about opportunities that can be manifested in built architecture." For the first two-and-a-half years, Scott worked on modest projects. He got his first large commission and attention from the press when he won (with the help of Weate's philosophical counsel) a competition to fit-out the London headquarters of Razorfish, the once monolithic but now defunct Internet design company.

With this newfound recognition and a growing project list and staff, Scott approached MacFee, a schoolmate and ex-coworker, to join the firm in 2001. "At Alsop, MacFee had an expertise in turning radical proposals into well-built buildings," says Scott. "It's transformed the opportunities of this practice, by our being able to offer our clients really crisp service and prove that we can transform drawings into viable projects." *Randi Greenberg*

For more images of projects by Surface Architects, go to [archrecord.construction.com/archrecord2/](http://archrecord.construction.com/archrecord2/)

## A New Vision in Fire Rated Walls.



## A Temporary Gateway into Infinity

It all started with a mutual interest in the work of Frei Otto, a pioneer of lightweight construction. When Jenna Schell, founder of Materials & Applications (M&A), a Los Angeles-based research center for landscape and architecture, discovered that architect Benjamin Ball shared her interest in Otto's work, the pair discussed the possibility of creating an homage to him in the M&A courtyard.

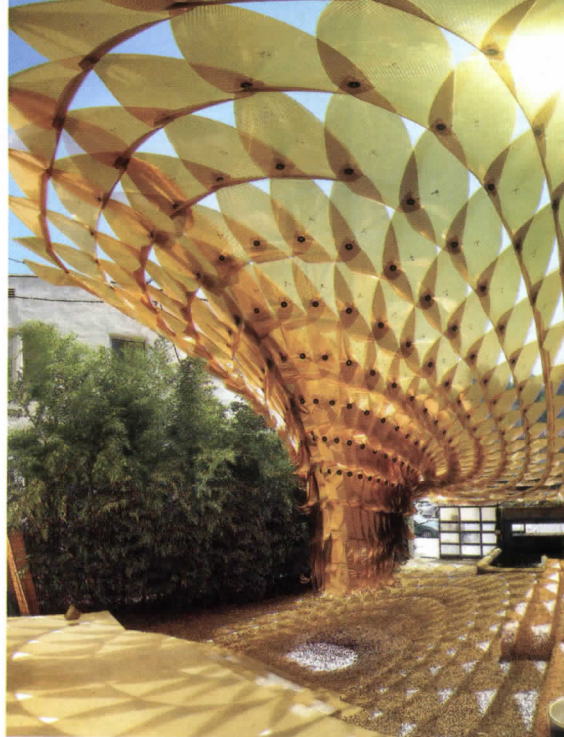


Serendipitously, Ball, whose work also includes film design and production, had been testing designs using TopSolid Design software. "I was working on what I could do that would be relevant to contemporary exploration of what Otto was doing, and finding ways to apply it to tensile structure," says Ball. He worked on a conceptual design for a year, and in November 2004, he began collaborating with Gaston Nogues, an architect responsible for product development in Frank Gehry's office.

During development, Ball and Nogues realized the form resembled a black hole. They also talked about what an obsessive process it must be to take several hundred pieces and transform them into a whole. It was when they made the connection to the classic sci-fi movie *The Black Hole* and named the project *Maximilian Schell*, in honor of the actor who portrayed the tyrannical Dr. Reinhardt. "The character is a funny metaphor for an architectural personality," Ball explains. "He was a total control freak—control of his vision—and that is exactly what you have to be to get this type of project completed."

The structure is composed of a polygonal matrix of 504 triangles that when combined form a funnel. The material is constructed of mylar laminated over nylon reinforcing yarn and joined together by clear polycarbonate rivets. Assembled on the roof of M&A, the project was then lowered onto a series of cables. The courtyard beneath hums with an accompanying ambient-sound installation by composer James Lumb. The installation will be open to the public until its dismantling at the end of November. R.G.

For more images of the structure and its construction, go to [archrecord.construction.com/archrecord2/](http://archrecord.construction.com/archrecord2/)



*The changing fractal light patterns of Maximilian Schell add a dramatic element to the courtyard, as does the framing of the sky from the vortex's apex.*

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# Dashed hopes for a charged site: What went wrong at Ground Zero

## Commentary

By Paul Goldberger

How long ago it now seems, that frenzied architectural season of 2002–2003 when the planning process for Ground Zero was front-page news and Daniel Libeskind's name turned up as often on the gossip pages as in the architectural columns. Even though Libeskind's master plan had not been the first choice of much of the New York architectural and cultural cognoscenti (many of whom seemed to have preferred the scheme produced by the Rafael Viñoly–led team that called itself THINK), Libeskind's selection as the planner for Ground Zero still felt like a triumphant moment in the architectural culture. One of the leading architects of his generation, the man who had produced the acclaimed Jewish Museum in Berlin, was being put in charge of planning the most intensely watched, symbolically resonant building site in the world. In one gesture, New York seemed to be throwing off its reputation as a city that ate architects for lunch, and staking a claim for the highest aspirations of the building art.

It's been painfully clear for quite some time now that this wasn't happening, and that Ground Zero was lurching, season by season, toward the one thing that everybody involved in the project said it would never become, which is an ordinary real estate project.

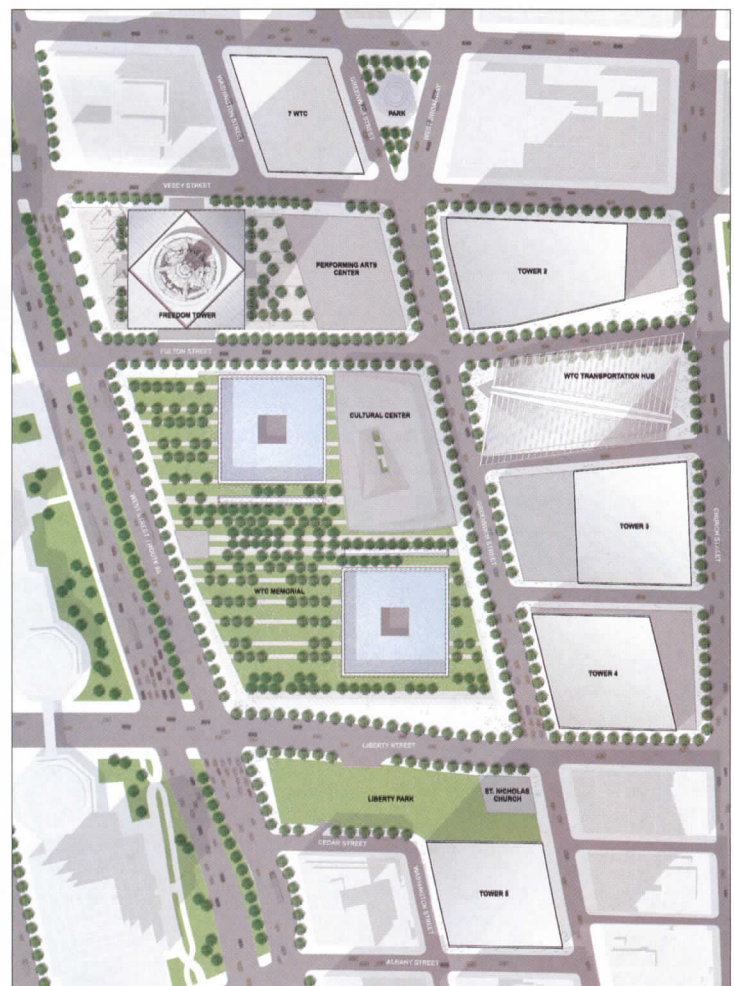
But none of the problems that

have beset Ground Zero so far, not even the epic battle between Libeskind and David Childs during the summer of 2003 over the design of the office building that New York Governor George Pataki had dubbed the Freedom Tower, have been as frustrating as the events of the past few months. In some ways, Ground Zero has actually turned into something much worse than a conventional piece of New York real estate development, and not only because expectations started off so high. It is beset not only by design compromises—Libeskind's master plan has now been so altered it is barely recognizable—but by a whole new set of struggles among the families of victims of the September 11 attacks, cultural groups, Lower Manhattan residents, and politicians.

The Lower Manhattan Development Corporation, which was set up to oversee the rebuilding process, has tried, ineffectively, to broker a situation that often seems out of control. Four years after the World Trade Center fell, it is still not clear who is really in charge, and what is going to happen there.

### Public versus private

Of course the project was always dominated by its commercial aspects. For all the talk about public participation in the planning process, the most important decision was made by Governor Pataki in private, immediately after September 11, which was to allow the Port Authority and the developer to whom it leased the Twin



The 16-acre site of Ground Zero includes the Freedom Tower on the north, the footprints of the World Trade Center towers, and a landscaped memorial.

Towers, Larry Silverstein, to rebuild all 10.5 million square feet of office space that they had lost.

In the years since the World Trade Center was built (Tower One opened in 1972), Lower Manhattan has undergone a remarkable transformation from a dreary office district to a vibrant, mixed-use neighborhood. But the program for

Ground Zero was written as if none of this had ever happened. The program is dominated by offices (for which there is no real market right now); its public components of a memorial and various cultural buildings occupy a clear secondary position; and it includes none of what Lower Manhattan needs most, which is housing.

*Paul Goldberger is the dean of Parsons The New School for Design and the author of Up from Zero, about rebuilding at Ground Zero.*

# Commentary

The Freedom Tower, which in its earlier iteration was a mediocre hybrid of Libeskind's and Childs's conflicting notions of what a skyscraper should be, has undergone a redesign that takes it from bad to worse. Libeskind is largely out of the

picture, but what's left isn't pure Childs: His new partner is the New York City Police Department, which set such strict parameters in the name of security that it has become Childs's associate architect in all but name. The department's secu-

city experts insisted that the tower be pulled far back from the street and that it sit astride a solid base 200 feet high. The Freedom Tower is now an office building plunked on top of a bunker, and while that may satisfy certain officials who believe that the main purpose of an urban building is to protect its occupants from truck bombs, so far as street life is concerned, it is difficult to

believe that this is going to be much of an improvement over the towers of the World Trade Center. It suggests that we are prepared to forgo everything we have learned about urbanism over the past 40 years in the name of security.

The memorial to the people lost on September 11, by Michael Arad and Peter Walker, is moving forward, and with more deliberate speed than any other part of the project, though speed is not quite the word that should be used to describe the fund-raising effort, which is reportedly not going well at all. The foundation that has been set up to build and pay for the memorial and the nearby cultural buildings has a board full of famous people, from Michael Eisner to Barbara Walters, but most of them so far seem to have been more willing to offer their names than their checkbooks.

The memorial design was chosen through a competitive process that, miraculously, managed to be almost entirely free of political influence, unlike anything else at Ground



The Freedom Tower will provide a vertical accent to Lower Manhattan, but is being criticized for its impact on urbanism.



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## Commentary

Zero. But once Arad and Walker won, their design, too, became subject to a slew of compromises, beyond the compromise to the Libeskind plan itself that their design, for all its inherent quality, represented. (It eliminated one of Libeskind's best ideas, which was his decision to depress the entire area around the footprints of the original Twin Towers.)

As for the other buildings planned for the site—the transportation center by Santiago Calatrava and the cultural buildings by Frank Gehry and Snøhetta, all three of which had been the object of great hope, as if Gehry, Calatrava, and Snøhetta could make up for the failings elsewhere—they are now caught in a web of budgetary, political, institutional, and even ideological conflict, and their futures are uncertain.

The Calatrava building, the one

thing proposed for Ground Zero that seems to have received universal acclaim, will pull through, since the only problem there is money. Calatrava has already completed one redesign that involved moderate compromise of his original

### SINCE THE WTC WAS BUILT, LOWER MANHATTAN HAS BEEN TRANSFORMED. BUT THE PROGRAM FOR GROUND ZERO WAS WRITTEN AS IF NONE OF THIS HAPPENED.

plans, which at Ground Zero is the equivalent of a design sailing through intact.

#### Censoring culture

The deepest threat to the Snøhetta building isn't financial or architectural, but political and ideological. The two cultural organizations selected to go into it, a distinguished small museum called The Drawing

Center and a new institution called the International Freedom Center, have both been under attack from a small group of family members who think the organizations aren't sufficiently patriotic, or are too concerned with issues that don't speak directly to the events of September 11. Governor Pataki, who has bent over backward so as not to offend the families, responded by asking

But whether it leaves or stays, the damage this event has caused may be irreparable. The irony of censoring the contents of a museum to be constructed in the shadow of the so-called Freedom Tower appears to have escaped Governor Pataki and the Lower Manhattan Development Corporation. If the bunker base of the Freedom Tower—a symbol not of freedom but of its absence—doesn't do enough to contradict the aims of an open society, limiting the cultural organizations to sanitized, pre-approved programs certainly completes the job.

It is a remarkable message to send the world—yes, we rebuild, but we do it by barricading ourselves behind bollards and solid concrete walls, and if that is not enough, then we make sure that any culture we show the public he is fully prechecked for controversy. It's a dismal vision of what freedom means on the fourth anniversary of September 11. Then again, it isn't much of a vision of what architecture means, either. ■

The Drawing Center to promise not to show any art that a family member might find disturbing. The Freedom Center, for its part, promised to define freedom as not involving questions about the events of September 11.

The Drawing Center may end up leaving Ground Zero rather than submitting to the voluntary censorship inherent in the governor's request.



Design: Noise 13, Photo: Daniel R. Cauleruo

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# Freedom Tower redux: sending all the wrong messages

## Critique

By Robert Campbell, FAIA

David Childs should have resigned the commission rather than submit to the embarrassment of publicly presenting the latest and worst version of the idiotically named Freedom Tower, as he did at the end of June.

If architects would take a stand—if they'd just say, sometimes, "this far and no farther"—maybe our profession would begin to have some slight influence on the shape of the world that gets built.

Instead, we're happy to be the handmaidens of single-issue masters: an ambitious governor with a hurry-up timetable, a nervous police department, a self-interested developer, whomever. These players all have their merits, but those merits don't include an understanding of good design or urbanism.

You don't know whether to burst out laughing or sobbing at the sight of this most recent monstrosity in the revolting saga of the World Trade Center site. To be fair to Childs, the SOM architect in charge of the Freedom Tower design, many of the problems predate his involvement.

For starters, do we really wish to choose, for our country's new national symbol, a box of leasable office space? Is that the height of American aspiration? I don't care how tall or shapely or elegantly detailed the box may be. It's still just a vertical crate with a P.R. label—Freedom Tower—that sounds as if it came out of a children's book.

The tower is also supposed to

be a symbol of the nation's resolve not to be cowed by terrorism. A modest ambition, to say the least. But in fact, Childs's new design sends the opposite message. It says that we are hopelessly cowed by the threat of terrorism, and that we expect to stay cowed. Pulled far back from the urban street because the city police fear truck bombs, built of nearly windowless solid concrete for its first 200 feet of height, the Freedom Tower is a billboard to the world that states: "We're afraid of everyone and everything, so we've decided to hole up in our citadel." During design development, SOM will surely wish to include tiny openings in the concrete facade for archers to shoot arrows and pour boiling oil on the enemy.

We accept the fact of tens of thousands of traffic deaths every year, in exchange for the freedom to drive. We must learn to accept the risk of deaths by terrorism, in exchange for the freedom to live in cities and not in a world of isolated fortresses. The fortresses won't provide security, anyway.

And why one huge tower, instead of a gradual, less spectacularly egotistical kind of development, growing slowly over time as the market grows, at lower heights on both the WTC site and its underdeveloped neighboring blocks? When you pile everything into a single super-tower, you create a building so attractive to terrorists, it might as well be decorated with a bull's-eye. Like a foolish infantryman, it sticks up its head above its surroundings, virtually

asking to be blown away. That's why it has to be so heavily defended.

Equally foolishly, we were told that the Freedom Tower would reassert American primacy by being the world's tallest building. It's a losing game. Not that anyone should care, but taller towers are already proposed for Chicago and Dubai.

Then there's the matter of aesthetic design. To this observer, Childs's sleek tower with its elegant facets looks like nothing so much as a vial for expensive perfume. Nothing about its form responds to anything we were taught in school: not to climate, not to orientation, not to energy concerns, and certainly not to the fact that good cities are made of sociable streetscapes. The Empire State and the Chrysler are tall, too, but each is a lively presence at the sidewalk.

Then there's the program. The concept for the WTC site is a 35-year-old program that never worked

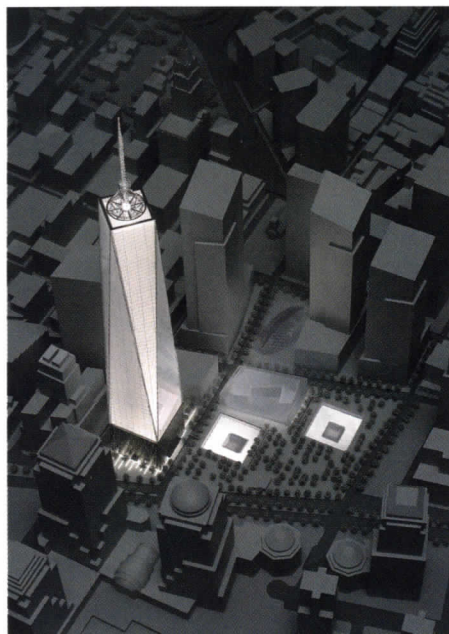
in the first place. There was no market in the 1970s for all those millions of square feet of office space, and there's none today. Development isn't my game, so I tried some of these questions out on a developer friend who long taught at a prominent business school. "Not much attention has been given to the deep subsidies that will be required to cover costs," he says. "Rents would likely have to be \$20 over the market [to cover the huge costs of construction]. But in fact, rents may have to be held below market, in order to attract tenants into a building that will be perceived as a target for terrorists. Someone will have to subsidize the difference, unless the property is going to be filled up by government agencies, who will bury the extra costs in their operating budgets."

I think back to the days of 2001 and 2002. Many thousands of hours were devoted by the design community to generating ideas for

the WTC site. Volunteers worked to establish goals and standards that would make the site a proud model for the urban community of the 21st century. They held symposia. They issued reports. None of it had any effect. Probably, the people who mattered never read the reports. The result is an egotistical office tower that doesn't know what a city is.

I hope the Freedom Tower is never built. I hope its site lies fallow for years, a symbol of the wreckage of the democratic process and the nation's understanding of urbanism. ■

The new tower will overlook the WTC memorial.



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

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# It came from sunny Portugal: exotic pavilion lands in London

## Exhibitions

By Hugh Pearman

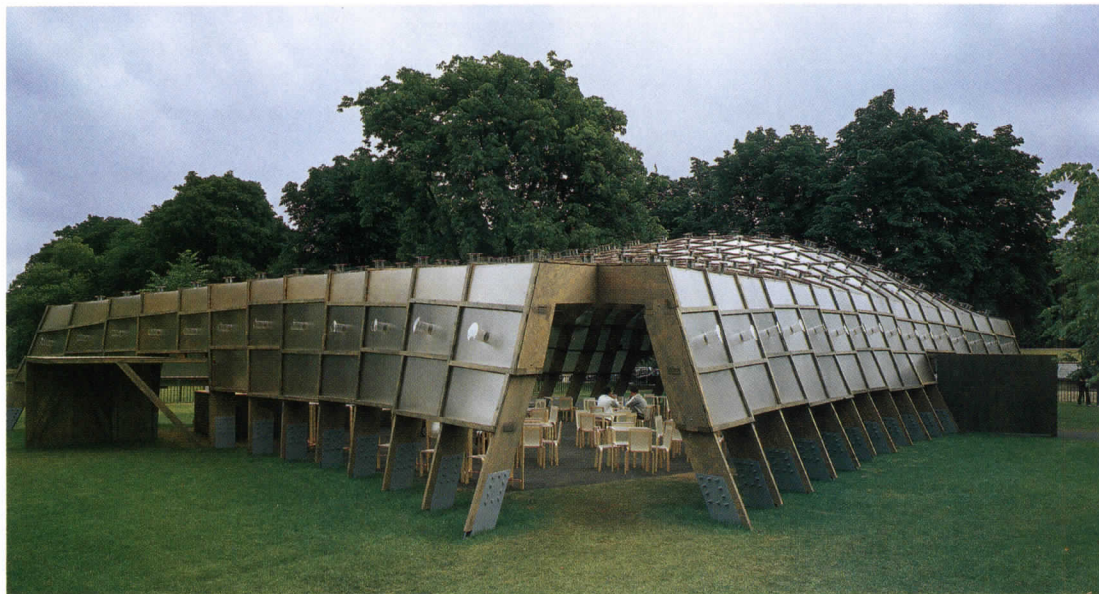
### Serpentine Gallery Pavilion.

Designed by Álvaro Siza and Eduardo Souto de Moura with Cecil Balmond. Hyde Park, London, through October 2.

It is early summer in the pastoral setting of London's Kensington Gardens. I am one of a dense crowd at the opening of this year's Serpentine Gallery Pavilion, designed by the Portuguese power duo of Álvaro Siza and Eduardo Souto de Moura. It is a large, lumbering, but rather awesome timber beast of a building, the biggest of these annual commissions to date. It has been built quickly and without compromise, the hallmark of this remarkable series of temporary structures. But this is far from the sunny olive-belt home of its designers. Being late June in England, the sky darkens, lightning flickers, and soon the heavens open into an almighty downpour.

Everyone who was strolling around the lawns is now suddenly inside, packed like fish in a barrel. Water starts to cascade in at one corner. But nobody minds much. That is because these pavilion launches—and the after-party that is already traditional at Richard and Ruthie Rogers's house in nearby Chelsea—are now as much a part of the English "Season" as the tennis at Wimbledon or the rowing at Henley, the gardens of the Chelsea flower show or the picnic hampers

*Hugh Pearman is the architecture and design critic for The Sunday Times, London.*



Interlocking timbers of 427 different lengths (above) create a column-free interior 56 feet wide (below).

at the Glyndebourne summer opera festival. And those events are always being washed out.

As it rains, we have time to examine the structure. It shares DNA with the "lamella" timber barrel-vault roofs of Germany in the 1920s, but distorted into an undulating, organic shape. Four hundred twenty-seven unique lengths of timber interlock (via simple mortise-and-tenon joints) to support each other and provide a 56-foot, column-free span. Construction had to start at one corner and radiate out to the opposite corner. Roof and walls are a single continuous structure, though the beams crank to express the change from the one condition to the other.

If it seems somewhat ungainly from the outside, the pavilion is lofty and beautiful on the inside. Part of its fascination lies in the deliberate jux-

taposition between its computer-generated structure and its rough, knocked-together appearance. This is high tech that looks anything but high tech. The lengths of timber are laminated sections of dark-stained Finnish spruce. They are quite crudely slotted together. For Siza in particular, this was important: He wanted a rough-and-ready feel. He rejoices, so he tells me, in its impermanence.

The building is sealed by 248 individually shaped transparent polycarbonate panels, each sprouting a cylindrical ventilation funnel in the same material (these little spikes are like the hairs on the animal's back, says Siza). Each funnel incorporates a small solar-powered light so that the building glows gently at



night. With its several entrances, the building opens to the footpaths that cross the site, acting as a surprising incident on a pedestrian journey.

Getting onto the English social calendar in this way is some achievement for Julia Peyton-Jones, the gallery's director. Because while all those other seasonal events are

## Exhibitions

steeped in history, radical modern architecture has never—until recently—been much of a topic in the upper echelons of English society. Now, nobody blinks at a tradition that Peyton-Jones began in 2000 involving a series of structures by—in chronological order—Zaha Hadid, Daniel Libeskind, Toyo Ito, Oscar Niemeyer, and now Siza/Souto de Moura. Last year was a gap, because

plans by the Dutch firm MVRDV to bury the existing Serpentine Gallery beneath a man-made hill proved overambitious.

The first four designs were all exercises in lightness of one kind or another. After Hadid's relatively modest angular steel-framed tent came Libeskind's jagged-metal horizontal twisting spiral. Then Ito's audaciously complex dissolution of the white

rectangular box was followed by Niemeyer's swooping-roofed, hovering aerie. This year's model, in contrast, is a dark, earthbound creature. Its imagery, for Siza, is of a hungry animal poised to consume the bourgeois architecture of the Serpentine Gallery itself. Named for the nearby Serpentine Lake in adjoining Hyde Park, it started life in 1934 as a park tearoom by architect Henry Tanner, Jr. Its utterly conservative tall-chimneyed late Queen Anne Revival style, plainly influenced by Lutyens, is a marvelous foil for its avant-garde arts programs. The new pavilion may challenge it architecturally, but simultaneously provides a generous 4,305 square feet of space for very bourgeois summer events, such as improving lectures and the taking of tea.

Apart from Peyton-Jones, the other constant in this series is structural engineer Cecil Balmond, deputy chairman of Arup, codesigner of Ito's pavilion, and an important muse for Rem Koolhaas (who must surely be in line to try his hand here). Balmond

describes the exercise thus: "The Serpentine Gallery each year gives the opportunity for experiment and the pushing of boundaries. Structure, form, and architecture become the same thing in these projects."

So an idea born in the smoke-filled, sun-dappled studios of the architects on the River Douro became reality in the computers of Balmond's Advanced Geometry Unit at Arup. It is certainly unlike the Modern, rational, white masonry buildings for which Siza is known (such as the Serralves Museum in Oporto), but has more to do with the bold structural experiments of Souto de Moura, as evinced by his Braga soccer stadium.

The critical reception for this year's effort has been appreciative but muted: It is a far subtler piece than any of its look-at-me predecessors. Perhaps Koolhaas will be along to reintroduce high drama to the series sometime soon. But in 2005, Siza, Souto de Moura, and Balmond have produced what is for me the most enigmatic and thought-provoking pavilion to date. ■



The pavilion sits in Hyde Park in front of the 1934 Serpentine Gallery.

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# A timely lesson in the life and function of forms

## Exhibitions

By Fred Bernstein

### Young Architects Program:

**SUR.** Installation by Xefirotarch, the courtyard at P.S. 1, Queens, New York, through September.

On June 26, P.S. 1 Contemporary Art Center in Queens unveiled its sixth annual summer installation aimed at making its courtyard a place to hang out—and ponder architecture's future. *SUR* (South) by Los Angeles-based Xefirotarch consists of a series of bright red, free-form benches that appear to be fiberglass, a second series of benches that look like concrete, and a series of canopies made of beige fabric stretched over frames of undulating metal pipe.

Four weeks later, the installation was in disarray. The smooth benches were blistered in some places. The rough benches were disintegrating, revealing that what appeared to be concrete was actually Styrofoam covered in a thick layer of paint. The canopies' Lycra was so badly puckered that countless folds and shadows overwhelmed the once-clean lines. The ends of the pipes were filling up with, among other things, litter and wads of gum.

Reached for comment in Los Angeles, Hernan Diaz Alonso, principal of Xefirotarch, said he was aware that "some of it is broken." He mentioned the tight budget of \$60,000, provided by P.S. 1 and its affiliate, the Museum of Modern Art, inclement weather the week

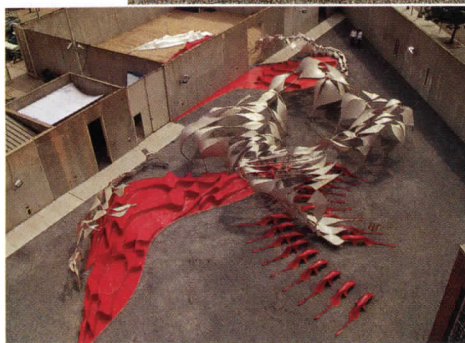
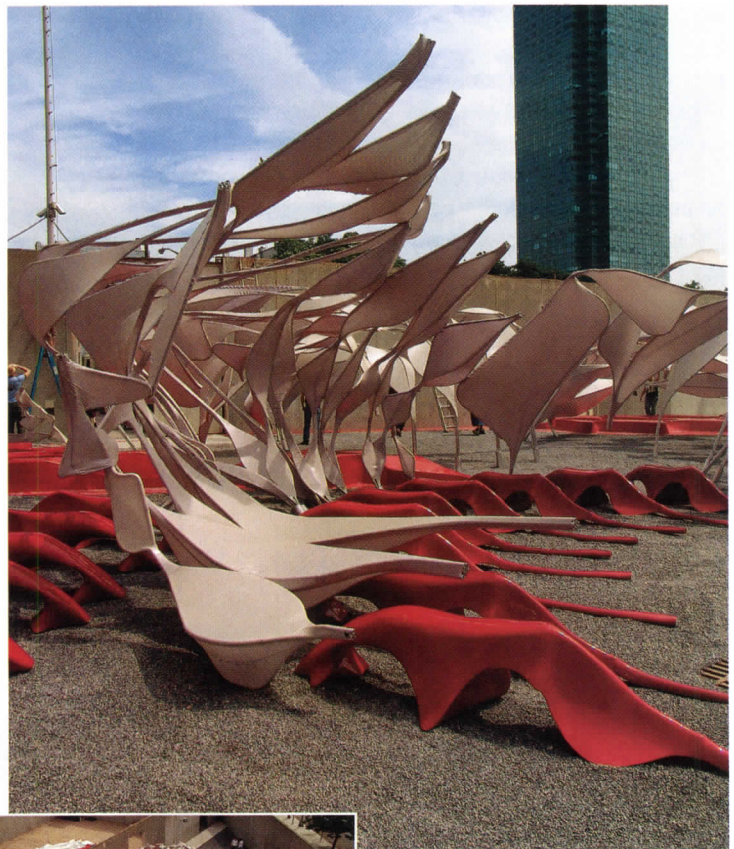
*Fred Bernstein is a New York-based journalist who writes for The New York Times and design publications.*

before the installation opened, and high humidity that caused the Lycra to distend. But, he said, "There are no excuses. If this were a permanent building, it would be a problem. But for a pavilion, it's a valuable experience." He added, "I'm pleased with the result—in terms of what we learned."

### Cinematic design

In that sense, Diaz Alonso, a 36-year-old Argentinean who has worked for Enric Miralles and Peter Eisenman, has fulfilled the promise of the competition: By experimenting with materials and methods at an early stage of his career, he has learned lessons that may inform future commissions. The installation, he said, "is like a person. When you are 60, you have more wrinkles than when you are 20." His concept, he added, "is cinematic—it has to do with the grotesque."

Each spring, a jury that includes MoMA curator Terence Riley and P.S. 1 founder Alanna Heiss narrows a list of up-and-coming architects to five, who are then invited to submit proposals for turning the stark, concrete-walled courtyard (designed by Frederick Fisher) into a gathering place. The program—or lack of one—leaves plenty of room for improvisation. Some past winners, such as SHoP (2000) and Lindy Roy (2001), have created delightful, yet thought-provoking, installations with witty



The installation, shown when it opened (above and left), occupies the courtyard of what had been a school.

*Spiral Settee*) and a foam grotto by Aranda/Lasch of New York, both of which had the potential to seduce P.S. 1's summer crowds.

"urban beach" references, such as shallow pools for splashing, intriguing places for lounging, and unusual devices for shading.

This year, the finalists' proposals included a curving bench by WW Architects of Boston (cutely named

Xefirotarch's proposal, by contrast, promised an extraordinary dynamism, enough to make a Frank Gehry or Zaha Hadid building seem static. In drawings, the installation looked almost scary, like a high-tech skeleton stalking the courtyard. The drawings are similar to those of an unbuilt plaza Diaz Alonso designed

## Exhibitions

for Lexington, Kentucky (included in the show *Tools of the Imagination* at the National Building Museum in Washington, D.C., through October 10). There too, he created tense, muscular forms meant to serve as benches, sunshades, and dividers. The description of the project—provided by Diaz Alonso—speaks of “defying gravity” while offering “flexible arrangements within which the narrative of the city can unfold.”

### The laws of physics kick in

But at P.S. 1, gravity and inflexibility rear their ugly heads. Diaz Alonso's benches are so close to the ground that people feel uncomfortable sitting on them. The canopies provide only a modicum of shade, and they rarely converge in ways that create spaces where people want to gather. And when the “shades” stretch to the ground, there is a confusion of purpose: Are the

canopies suddenly perches? (One couple let their baby use the end of a canopy as a hammock.)

The architectonic language is also disappointing. The most ambitious element—the sunshades—lack an organizational coherence. Frames are inelegantly welded, and some Lycra covers are too short for the poles, while others are too long. Some pieces are supported at both ends; others cantilever, for no apparent reason.

Clearly, this scheme falls in the category of biomorphic—a.k.a. blobby—architecture. But the challenge of blobby architecture is to create new paradigms for design development and construction, while avoiding the usual repetition of rectilinear forms. Diaz Alonso hasn't done that.

It's true that, of the five finalists, Xefirotarch's proposal was by far the most ambitious. Perhaps the judges



The piece looks like a high-tech skeleton.

should have prevailed upon MoMA to increase the construction budget. Indeed, once fabrication began, Diaz Alonso said, he knew that he would either have to shrink the project or turn to less expensive materials than he had planned. He chose the latter, and the built work did not hold up. The sense of movement evident in his drawings failed to make the tran-

sition to three dimensions.

Then, too, Diaz Alonso's installation suffers by juxtaposition with *Greater New York 2005*, the summer survey show that fills P.S. 1's indoor galleries through October. That show includes dozens of artworks that architects will find compelling. In one corner room, Tobias Putrih (born in Slovenia 33 years ago) has created an installation of stacks of corrugated card-

board carved into oversize vessels. The thinly sliced corrugated material is almost gauzy; the view through multiple layers hypnotic—think cardboard moiré! Putrih's art, unlike Diaz Alonso's architecture, isn't subject to rain, high heels, and chewing gum. Still, he has created a new building system, and it is dazzling. ■

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### Wishbone Leg

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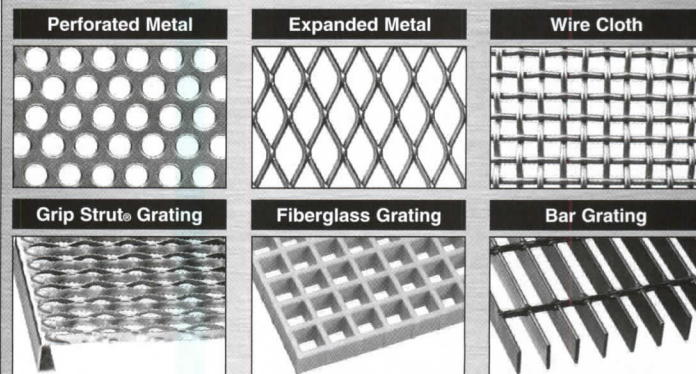
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# Design, sustainability and public service

## Books

**Designing for the Homeless: Architecture That Works**, by Sam Davis. Berkeley: The University of California Press, 2004, 176 pages, \$34.95 (cloth).

This important new book is, above all, a call to action for architects. Sam Davis, an architect of affordable housing and a professor at Berkeley, presents homelessness as a complex problem that architects can and should help ameliorate.

Davis goes beyond design and planning, discussing the societal costs of homelessness and the concerns of the afflicted. He tells how unforeseen events can catapult someone from financial solvency into living on the streets, and argues that a continuum of housing types is needed, including emergency shelters, assisted living centers, and independent units. Needed too, he writes, are services—social, psychological, financial, educational—to lift the afflicted out of their plight.

The author also discusses the challenges of fitting projects into existing communities and compares various plans and interior layouts, questioning how such housing should look and feel. In evaluating costs, he says, “affordable housing should be indistinguishable from nearby housing so that residents will not feel stigmatized and will feel a part of the surrounding community.”

He goes on to examine case studies, including the St. Vincent de Paul Village in San Diego (1987), a facility that offers customized care and helps people earn GEDs, get computer training, find jobs, and

receive health care. In New York, he cites the Family Transitional Shelter and the First Step Housing project. In San Francisco, he discusses Donald MacDonald’s plywood “City Sleepers” that stand 18 inches off the ground on inverted carjacks; and contractor, homebuilder, and former mayoral candidate Jim Reid’s 100-square-foot structures that include a bathroom and space for laundry. Davis notes that in Atlanta alone, home of the nonprofit Mad Housers, there are more than 10,000 homeless people at peak times and fewer than 1,000 available beds.

The illustrations in *Designing for the Homeless* aren’t of the best quality, and Davis hasn’t brought all his facts up-to-date. But he has given us a significant book that packs a considerable punch within a small number of pages. *William J. Carpenter*

**Proceed and Be Bold: Rural Studio After Samuel Mockbee**, by Andrea Oppenheimer Dean. New York: Princeton Architectural Press, 2005, 176 pages, \$30.

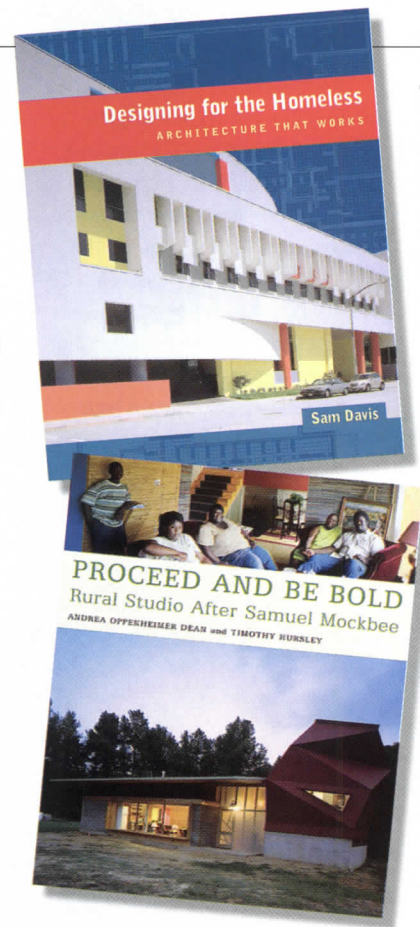
Alabama’s Rural Studio, where Samuel Mockbee inspired a generation of architecture students to build houses for the poor, has often been called Taliesin South. The nickname is meant to suggest an apprenticeship program, where students learn by doing. But given Mockbee’s death in 2001, it could have been a portent of disaster. At Taliesin, Wright’s disciples carried on by creating a series of posthumous buildings so bad they threatened to

destroy the master’s reputation.

So how are Mockbee’s followers faring? Three years ago, Andrea Oppenheimer Dean and Timothy Hursley, as writer and photographer, collaborated on a book about Rural Studio’s accomplishments under its founder. Now they are back with a second volume, about its work since Andrew Freear and Bruce Lindsey assumed leadership of the program.

The book describes 17 buildings, all of them in southwest Alabama, the territory that “Sambo” chose for its heartbreaking beauty—and squalor. The buildings are in most cases less fanciful than the ones completed under Mockbee’s supervision, including the Mason’s Bend Community Center, glazed with 80 surplus Chevy Caprice windshields. Dean writes not as a cheerleader (though there is very much to cheer), but as a critic, noting that one house, conceived by Mockbee but completed by his students, became “overly dramatic when built,” and that, as the Studio’s projects have grown increasingly complex, more and more design work has been done off-site, precluding the improvisational flourishes for which Sambo became famous. She also points to the discrepancies between how buildings are intended and how they are received: For a farmer’s market in Thomaston, the students used unfinished steel—to them, rust may be beautiful, but to residents, it suggested decay.

Still, unlike Taliesin, Rural Studio was never about carrying out one person’s designs, just his ideas.

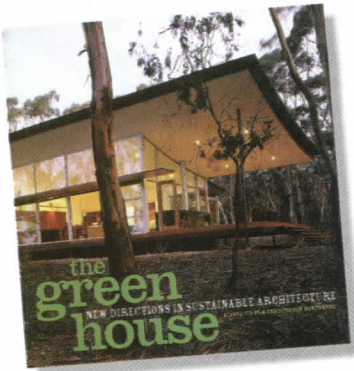


And his greatest idea—that architecture students could learn while creating shelters for some of America’s poorest citizens—has taken root, as documented in this thorough and thoughtful volume. *Fred A. Bernstein*

**The Green House: New Directions in Sustainable Architecture**, by Alanna Stang and Christopher Hawthorne. New York: Princeton Architectural Press, 2005, 196 pages, \$45.

For this compact, stylish volume of 39 green residences, authors

## Books



Alanna Stang, until recently the executive editor of *I.D. Magazine*, and Christopher Hawthorne, currently the architecture critic for the *Los Angeles Times*, scoured the globe for striking examples of eco-friendly houses and apartment buildings. In the book's introduction, they say that "new connections have been forged between high-design architecture and the public," adding that, given a culture that is increasingly image- and style-con-

scious, only green buildings that are beautiful will entice owners (in this case, homeowners) to demand them, and therefore raise the profile and impact of sustainable design.

The eclectic collection presented—from a sleek wood-and-glass home with high-tech sunshades in the Swiss Alps to a steel town house in Manhattan that uses a geothermal heating and cooling system—makes the case that green houses have not only shed their maligned aesthetic roots (think sagging sod roofs) but have also embraced modern technologies and materials. Stang and Hawthorne group the homes by setting (city, waterside, desert, suburb, mountainside, tropics), which both underscores how each house's green features are tailored to local conditions and (on a more personal note) helps readers envision the ideal settings for their own green

habitats. Notably, only 14 of the 39 homes are located in the U.S., evidence of how much ground we have to make up in this area.

With its crisp photos and illustrations and detailed write-ups of each project, *The Green House* will serve as a handsome resource guide and inspiration for designers and their clients. A companion exhibition, which will open in May 2006 at the National Building Museum, will go even further to bring sustainable housing into the public eye.

*Deborah Snoonian, P.E.*

**The HOME House Project: The Future of Affordable Housing**, edited by David J. Brown. Cambridge: The MIT Press, 2005, 128 pages, \$24.95.

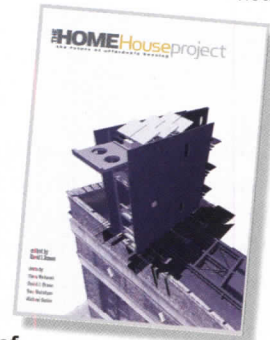
This book arose as a result of a 2003 competition that solicited projects on the future of affordable

housing. The competition called for designs of three- and four-bedroom sustainable dwellings modeled on Habit for Humanity's housing program. Though the competition's intentions were noble, the book's production elegant, the essays eloquent, and the designs energetic, many of the winning projects belie some basic tenets for affordable housing, and others use flawed assumptions.

Most would agree that making housing more sustainable and affordable will require increased density. Michael Sorkin says so in an introductory essay, as does Steve Badanes, one of the original Jersey

Devils, in an interview. But of the 25 designs selected by the jury from a pool of more than 440 entries, only one, by Steve Raiké, proposed a high-density solution.

The majority of projects equate affordability with some degree of



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## Books

prefabrication, and their approach assumes that dwellings are commodities, like cars or appliances. They are not. They must be fitted into a physical and social context and meet local regulatory and cultural expectations. Furthermore, housing's major cost is not construction, but rather land, infrastructure, and maintenance.

A number of designers converted products from other industries, notably shipping containers, in their entries. A compelling case can be made for recycling when these products are surplus, but this is not always the case. And much of the imagery is strikingly similar to that in the 1972 Museum of Modern Art exhibition *Italy: The New Domestic Landscape*, which included houses made from containers and molded utility cores.

The HOME House Project competition and book don't live up to

their lofty claim of representing the "future of affordable housing," and most of the ideas have appeared in previous competitions. But this beautifully produced book serves to keep the necessary dialogue alive. *Sam Davis*

**Studio at Large: Architecture in Service of Global Communities**, by Sergio Palleroni, with Christina Eichbaum Merkelbach. Seattle: The University of Washington Press, 2004, 191 pages, \$19.90.

Since the 1960s, architecture schools have attempted to make education less self-referential and more socially relevant. One outgrowth of this effort is the rise of community design centers (CDCs),

which have faculty, staff, and students designing real projects together, such as Samuel Mockbee's Rural Studio and Yale's first-year building program, which has existed for 35 years.

None of these endeavors is easy. The problems include inexperienced students whose stays at

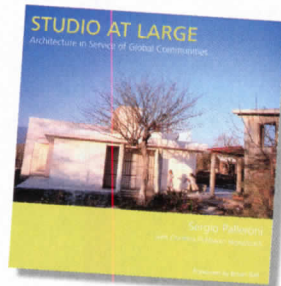
school are brief and sporadic; academic institutions that often question the educational efficacy of the work; and management issues like identifying projects, avoiding liability, providing on-site student housing during projects, and forming compatible teams.

*Studio at Large* is a portfolio of the University of Washington's ambitious Building Sustainable Communities Initiative, which has worked in Mexico, Cuba, India, and various rural U.S. communities. Each project is presented as a story focusing on the needs of the com-

munity and the political context. The program and book emphasize construction, not aesthetics.

Among the possible reasons for the lack of exceptional design are that students sometimes stayed only long enough to start the basic building for each project, leaving details and finishes to locals. Often there was little infrastructure or access to materials in places where they were building, so procurement and construction left little time for design. The program had no consistent vernacular to draw from, as they built in so many different locations. Finally, in this program, an entire studio works on a project, making collaboration and coordination very complex.

The authors make their case that the projects are about service, education, and architecture, but they make less of a case for the pedagogy. Further, the book would have been stronger had it included students' evaluations about what they learned or how the experiences guided their professional aspirations. *S.D.*



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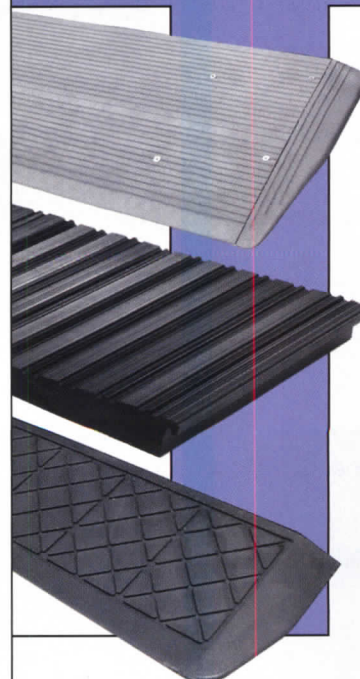


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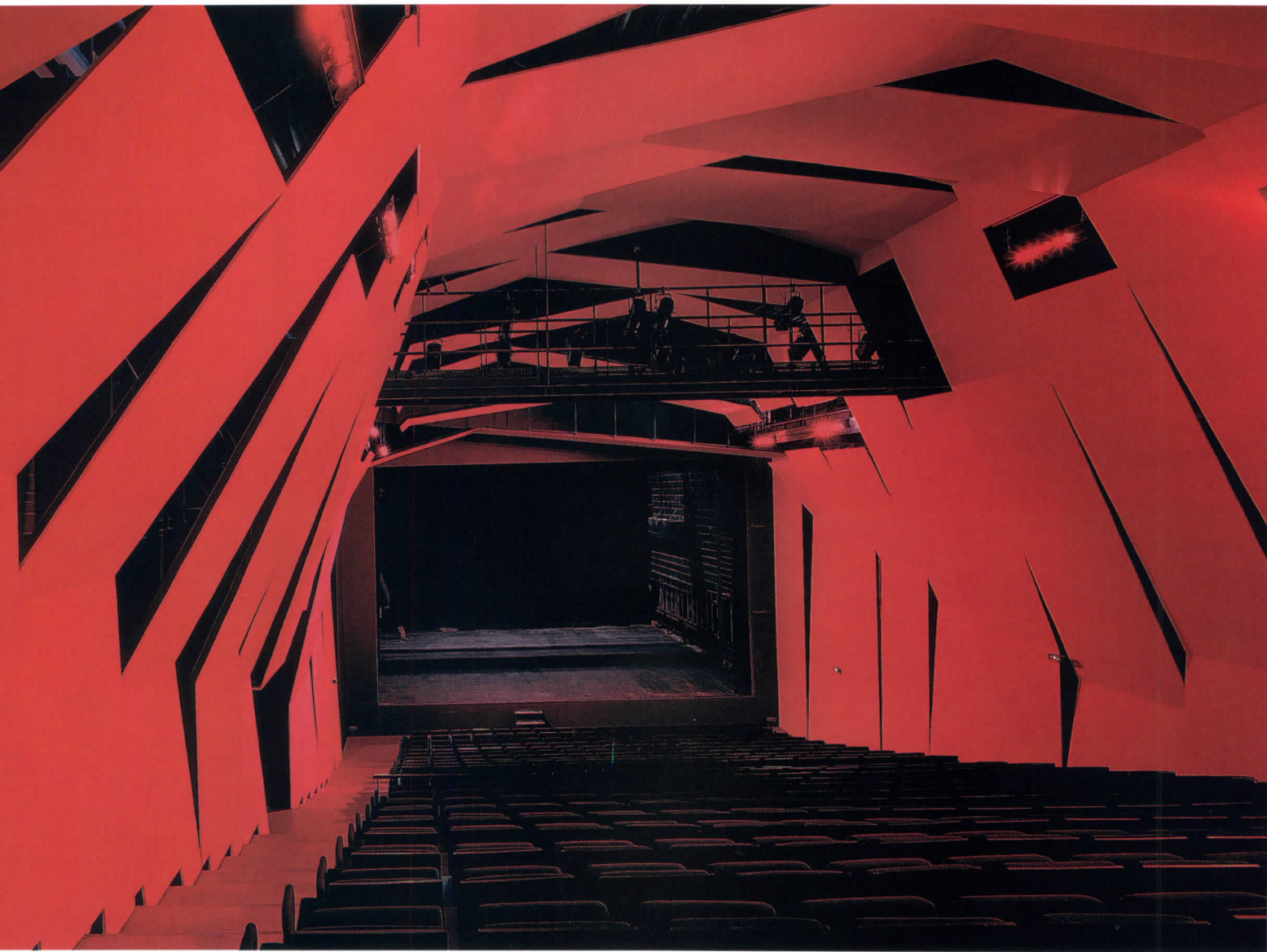
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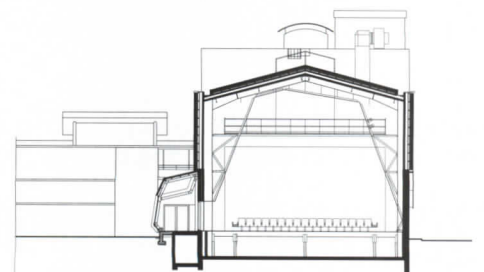
# Snapshot



by Ingrid Spencer

Like the gaping crimson maw of a giant hungry beast, the Maxim Gorki Theatre, Rouen, France, swallows visitors into a theatrical spectacle even before the curtain rises. Designed by the Paris-based architecture firm Jakob+MacFarlane, the theater adds to the cultural landscape of the former capital of the duchy of Normandy, now known as the *Ville d'Art et d'Histoire* (the city of art and history). Located in a former early-20th-century meeting-hall-turned-cinema, inserted among 19th-century row houses, the theater occupies a region where, according to architect Brendan MacFarlane, Communists had a strong political presence (hence the name Maxim Gorki, after the Russian revolutionary writer). The 5,249-square-foot auditorium belongs to a national circuit of drama-only (no music or dance) theaters throughout France. "Other than convincing the town that their theater should be red," recalls MacFarlane, "the two major problems we faced were that the space had never worked acoustically and had bad sight lines throughout." To celebrate the venue's history and solve the technical problems, the architects distorted the shed-roofed volume to create what they call "a new stomach within the skin." They introduced stepped seating, a wood floor, and sliced wood paneling for walls and ceiling. The volumetric deformation and ceiling pleats subtly hide the mechanicals. And the red? "That was tough," says MacFarlane, "but eventually they understood." ■

## A theater in Normandy opens wide for drama



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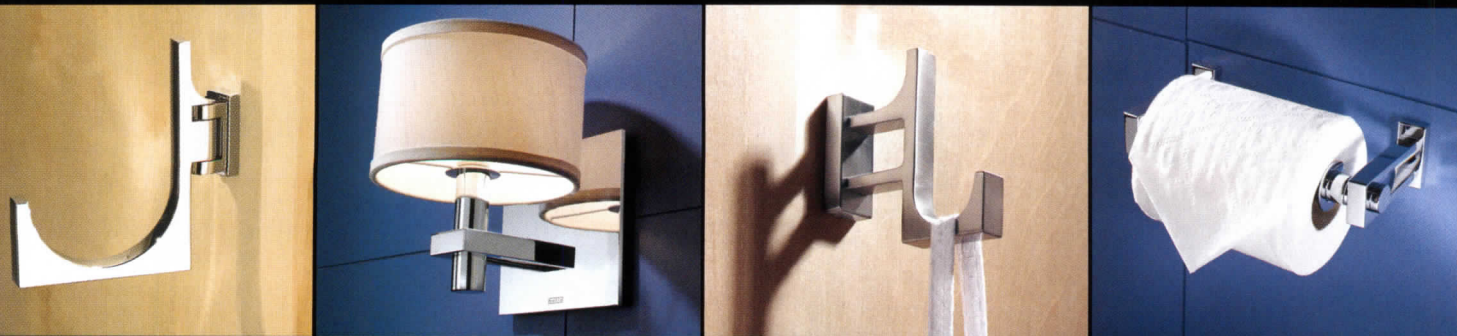
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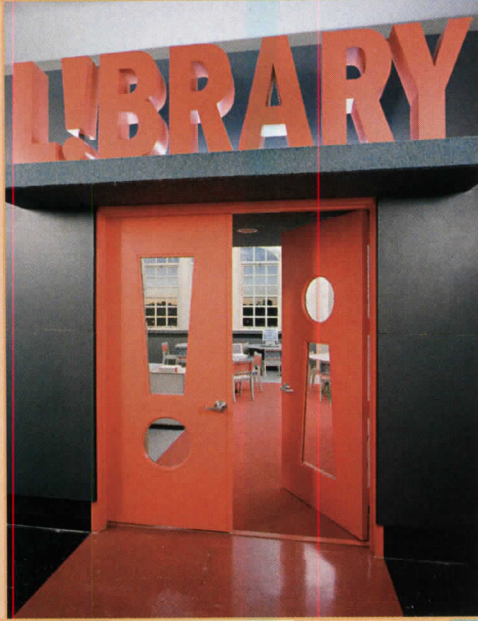


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# The L!BRARY goes back to school

By Jane F. Kolleyen

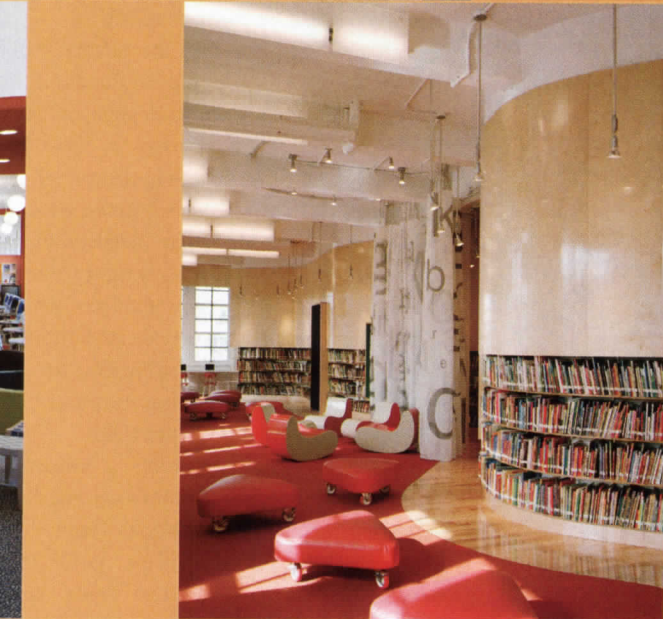
FEATURES

The Robin Hood Foundation prompts architects to re-envision the public school library

I had a dream of reinventing the library for elementary students," says Lonni Tanner, who headed special projects at the Robin Hood Foundation for 11 years. In 1998, she and Henry Myerberg, AIA, a partner at Rockwell Group in New York, visited a school in Brooklyn and saw what passed for a library: a room with a few dusty books and out-of-date computers. Soon they discovered that many of the public schools in New York City had similarly dispirited spaces posing as libraries. The kids deserved better, Tanner felt. Essential to their thinking is that libraries—at the heart of

learning and education—can have a lasting effect on poverty. "You can't change all the classrooms in a school, but you can make a library—which takes only 5 percent of the physical space of a school, but has a 100 percent influence," says Myerberg. "That's a great rate of return."

So began the Robin Hood Foundation's library initiative, which has evolved into a unique collaboration with New York City's Board of Education to create, fund, and maintain school libraries in some of the most impoverished areas of the city's five boroughs. Myerberg worked closely with Tanner to jump-start the project, asking other architects to volunteer their services. He was amazed at how easy it was to get help; it took 10 phone calls to get nine New York architects (plus himself) to design the initial 10 projects, which were completed in 2002. Since then, on the second round, he designed seven of the next 21 libraries, which opened in 2004. For the third round, he will undertake about five of a total of 25 libraries, which will be also be designed by seven other local architects, four of whom created prior libraries for the project.



PHOTOGRAPHY: © PETER MAUSS/ESTO, EXCEPT AS NOTED;  
JEFF GOLDBERG/ESTO (THIS PAGE, TOP AND MIDDLE RIGHT)



**P.S. 184**  
**Richard H. Lewis**  
**Architect**  
 Postindustrial-style light fixtures, designed by Fabulux, a local Brooklyn firm, and stackable benches called Kin-der-link, designed by Skool, complement photo-murals by photographer Dorothy Kresz, who used images of the actual star pupils of the school.

The goal of the first round was to create a model that might be applicable to other school districts in the U.S. “It’s not about creating a box or a room or putting books on the shelf,” says Tanner. “I wanted the library to do its duty with the rest of the building and the school’s program.”

The library initiative fits perfectly into the mission of the Robin Hood Foundation, a nonprofit organization founded in 1988 by commodities broker Paul Tudor Jones and two friends in an effort to give something back to the less fortunate in a society that made them wealthy. The foundation has become a favorite of New York’s high-flying hedge-fund managers, many of whom have given to it generously in recent years as their own fortunes soared. The group funds soup kitchens, education, job training, and programs for the homeless, supporting about 140 organizations in the greater New York City area. Executive director David Saltzman says, “The library initiative is a model of what public/private partnerships can and should be. Generations of poor children in New York City will benefit.”

**P.S. 145,**  
**Rockwell Group**  
 This 1,800-square-foot space has a perimeter of fixed bookcases, storage, and a librarian’s workstation, all of which allows for maximum interior area. “An overhead translucent scroll, which depicts poetry written by the school’s children, forms an arena for storytelling and an inspiring wave for inquiry,” says Henry Myerberg, AIA.



**The inspiration becomes reality**

The architects involved in the library initiative knew they needed to understand the students before they could design for them. Calvin Tsao, AIA, a partner at Tsao and McKown Architects, who has completed five libraries to date, says: “We examined what the word ‘library’ means today, technologically and sociologically, and then sought to define the word for this particular group of people. We deconstructed and reevaluated the purpose of the library specifically for the students, to reinsert learning into there in a way that would be relevant to them.”

From the beginning, a stream of donations—elicited by Tanner—sprang forth including one million books each from Scholastic and HarperCollins, paint from Benjamin Moore, computers from Apple

advanced education (Master of Library Science degree programs) for the librarians from Syracuse University, graphics from Pentagram, and other gifts in kind. Even with donations and modest spending, the budget for the design of each library typically runs \$400,000 to \$500,000, a hefty commitment for schools with limited resources. But the Board of Education has committed its ongoing support—essentially in the form of a two-to-one matching grant—putting in two dollars for every dollar contributed by Robin Hood.

The architects learned that the old-fashioned definition of libraries as quiet, private places to read has morphed over time into a notion of settings for collaborative learning. They serve as gathering spots, where kids can work together on computers and watch or deliver presentations. Libraries have become media centers where technology and the Internet provides access to the world at large. Public performance and interactive learning appear to help the kids develop confidence. For that reason, the libraries feature theater areas or town halls, as Tsao refers to



**P.S. 192,**  
**Gluckman Mayner**  
**Architects**  
 From a ceiling, designed to look like a sky with clouds, suspended light fixtures resemble books with flapping wings. Bamboo floors, formaldehyde-free wheat-straw board for the casework, and recycled plastic are among the materials used for their low-cost and sustainable properties.



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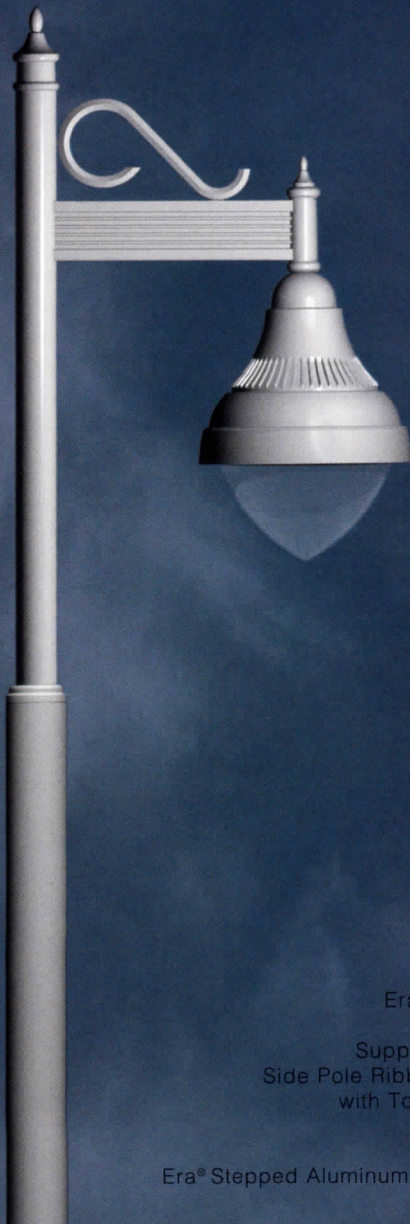


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**P.S. 137,  
Rockwell Group**  
In this library, custom-designed tables move like wheelbarrows, and seats are made from colorful recycled seat belts. An overhead frieze features a weave of wishes written by the school children. "The library is a welcoming, colorful, and playful setting for learning and teaching," says Henry Myerberg, AIA.

**P.S. 256,  
Tsao & McKown Architects**  
Calvin Tsao, AIA, remarked that the architects "paid specific attention to the concepts of communal learning versus private learning, which can be harmonized through design." This is evident in the separate work areas shown in this library, where several activities occur simultaneously.



**P.S. 151,  
Dean Wolf Architects**  
Conceived as a reading playground, bookshelves intertwine with both the space of the library and the furniture for the children. Shallow ramps wrap the area, establishing a dynamic relief that engages children in an exploration of the perimeter bookshelves from varied points of view.

them, a deliberate attempt to center the space in a traditional way and use design as a learning device.

The team of architects from the first round of libraries established parameters to guide later designs. They agreed on the need to accommodate librarians/teachers leading an active class, students giving performances, and individuals studying alone. Since each space comprises no more than 2,000 square feet, flexibility became a key design component. Many areas have multiple uses facilitated by custom-made movable furniture and shelving. Each library required a minimum of four computer stations, wireless access, and storage for 10,000 books. While the design in each instance is unique, the aim has been to standardize the program and develop an economy of means.

**The designs themselves**

Architect Richard Lewis has designed five of these projects to date and is slated to do five more. He has enjoyed the sense of common purpose that Robin Hood encourages among the architects. "It is so satisfying to see the positive effect of these libraries. That's why the issue of professional fees has been so unimportant," he comments. The architects speak glowingly of their experience with Robin Hood, despite modest fees, which offset a portion of their direct costs. Michael Beirut, a partner at Pentagram who serves as graphic designer for the libraries, reiterated this experience. He described this work as the most fulfilling of his career. Perhaps the look on the kids' faces as they use the places explains the motivation of everybody involved in the initiative.

Looking at tight budgets and existing spaces, the architects found that some of the best tools for enlivening the libraries include customizing portable furniture, applying bright colors, and bringing in lots of daylight, original graphics, and whimsical light fixtures. While the libraries are ambitious for this context, they are often conservative for the architects themselves

many of whom have established reputations for innovative design. Marion Weiss, a partner at Weiss/Manfread Architects, who designed a library at P.S. 42 in the first round, made a big impact simply by changing the library location. Moving it from the fourth floor—where, in isolation from the center, it seemed to imply that reading belonged at the periphery of education—she placed it on the first floor, where it is visible from the street and makes clear the school's commitment to books and learning.

One of the challenges the architects faced was combining public and private areas in limited space. Some designs use bookcases, often on wheels, to define zones. Multifunctional furniture such as "flip-flop" desks and stools also help, along with curtains that can be drawn or opened as needed, and areas that can morph into proscenium seating, a stage, or work area.


Tod Williams Billie Tsien Architects completed one library in the first round and three more in the second. Partner Billie Tsien, AIA, said they learned that a great cabinetmaker



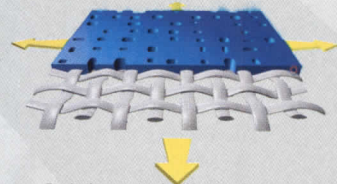
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**P.S. 1,  
Marpillero Pollak  
Architects**

"Sitting on 'poofs,'" says Linda Pollak, AIA, "the younger children are raised on a platform that doubles as a stage for the older students." These young children have their own tiny stage, which is not visible in this image. Children's art lines the wall above the windows and shelves in this fun-loving design.

**P.S. 16,  
1100 Architects**

This library features a freestanding, serpentine bookcase, which serves both as a unique visual element and a divider to make the small space into three distinct areas. Says Juergen Riehm, FAIA, "The shape [of the bookcase] is echoed in giant Barrisol light fixtures that effectively illuminate, anchor, and further define the work areas."



**P.S. 32,  
Tod Williams Billie  
Tsien & Associates**

Here, the architect takes advantage of the ceiling both through recessed lighting and tubes of light that extend into air, joining the ceiling to the floor and warming up the space. "The ceiling of a library has great potential as an important elevation," says Billie Tsien, AIA.



not only your friend but potentially the primary builder of the library, since he/she can produce the space-defining bookcase that can "make a room feel good."

Beirut unified the projects with an identity built around the word *l!brary*, with an exclamation point in place of the *i*. Throughout the interiors, this iconic branding crops up in a variety of materials and forms—in signage, carpet, flooring, and the glazing of doors. Since the kids typically can only reach 5 to 6 feet up to the top shelf, most architects kept the shelves low but took advantage of generous ceiling heights by putting murals on the walls above the shelving.

**Moving ahead**

So far, the libraries have been big hits—not just with the design community, but more important, with the administrators, teachers, principals, and children who use them. Principal Robert Flores of P.S. 106 in Brooklyn says, "You can't fathom what this library has done for this community and the 650 students served by the school." When the program began, few

of the teachers believed they would see much of an outcome from the initiative; they had long become accustomed to unfulfilled promises and cuts in school funding. Yet after the completion of the third cycle, there will be more than 500 new libraries built with 595 more to go, to fulfill the Robin Hood Foundation's goal of completing a school library for each of the 650 public schools in New York City.

The projects have won eight AIA awards for excellence in design, and this year Tanner received a special citation by the New York City AIA for the work, along with Christy and Jean-Claude for their *Gates* in Central Park—the only recipients of this award in 2005. The good will, strong design, and civic virtue of these projects are hard to quantify.

And now the initiative is having a similar impact beyond New York. Baltimore launched a similar program in its public schools in 2001.

The first library, Southeast Middle School, should open this fall. Designed by Alexander Design Studio, it won a Baltimore Chapter AIA award as an unbuilt project. With funding from grants raised by Baltimore's Board of Education, the city is preparing to expand the program. "We enlisted the help of 12 architects to do 12 more libraries for the schools," says Alexander. While Robin Hood's library initiative is 100 percent in New York City, the idea of public/private partnerships to effect change in student performance and schools nationwide is both its promise and example. This remarkable project has drawn people together in creative and meaningful ways, bringing attention to communities that sorely need it. ■

*While the Robin Hood Foundation makes libraries happen, Common Ground creates housing and community development projects for New York's homeless and underprivileged. Visit [www.archrecord.construction.com/people/](http://www.archrecord.construction.com/people/) to read about its most recent undertaking—restoration of the Prince George Ballroom, a unique public/private endeavor.*



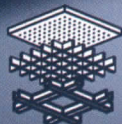
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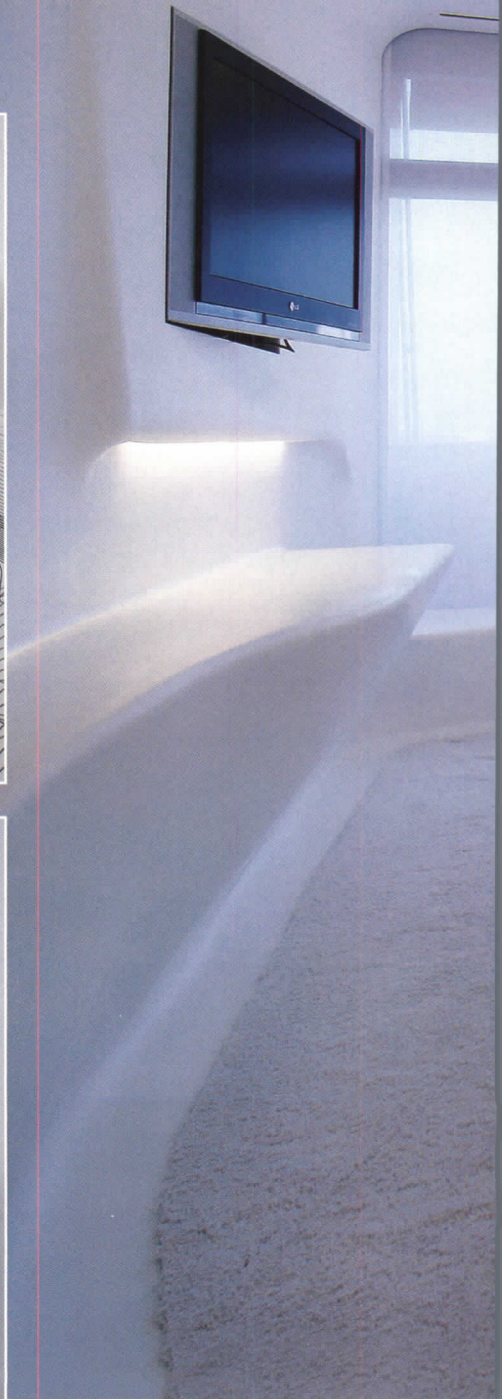
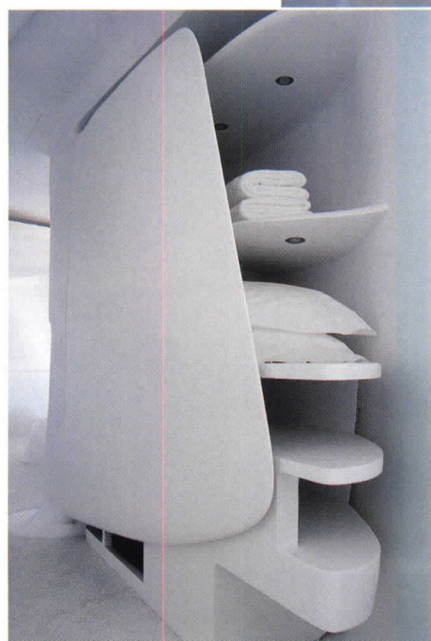
# Overnight Sensations

A global *Who's Who* of architects and designers teams up to create a hotel in Madrid

By David Cohn

**C**ommissioning 15 star architects and designers to collaborate on a new boutique hotel in Madrid required a big leap of faith; the results could have veered toward either an inspired design destination or the aesthetic equivalent of acid rain in Spain. We're happy to report, however, that the Hotel Puerta América, which debuted in July, is not an exercise in marketing buzz trumping true design. Though off-kilter

David Cohn is RECORD's international correspondent based in Madrid.

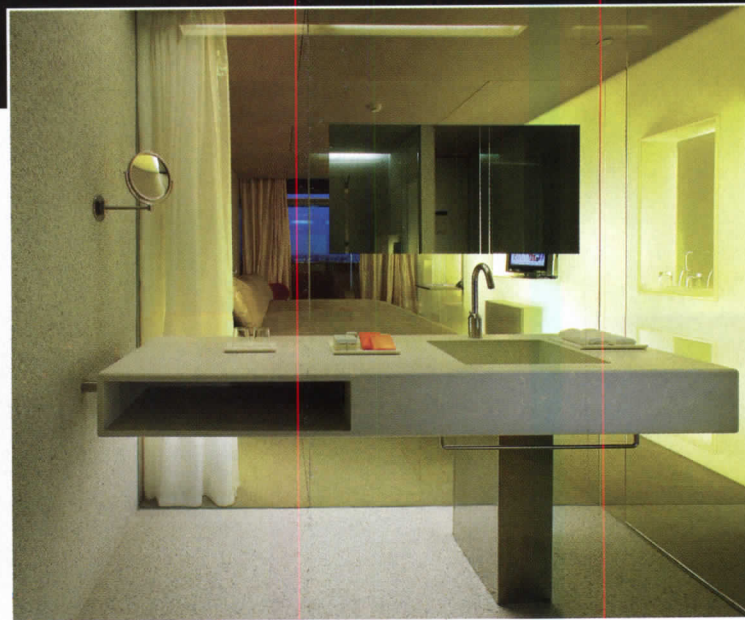
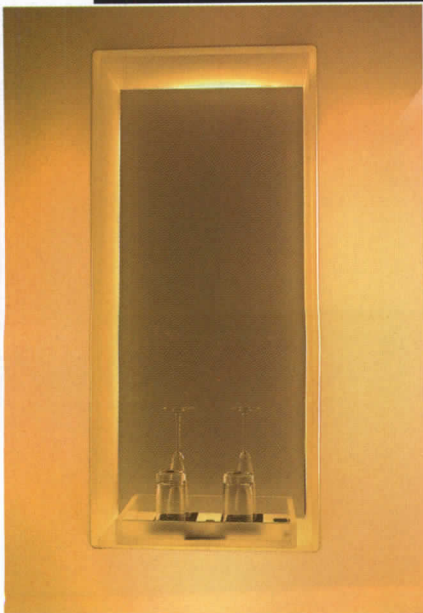


FEATURES

## Zaha Hadid

In the Hotel Puerta América, Hadid designed a floor of guestrooms as amoeboid environments in solid-surface acrylic. Rooms come in white (this spread), black, or crimson, with custom linens (opposite, top) and streamlined storage (opposite, bottom).





**Richard Gluckman**

Lighted acrylic boxes, in either blue or yellow, inserted into a white acrylic wall (above and far left) contain a mini-bar, desk, TV, and other services. A white metal curtain partitions off the room from the bath (left)



## Arata Isozaki

Inspired by Junichiro Tanizaki's *In Praise of Shadows*, Isozaki created dark chambers (left and below) with stained-oak shoji-like screens at the windows and headboards, and soft illumination.



in certain quarters, this is no heartbreak hotel for design aficionados checking in to check out the latest hotspot.

Zaha Hadid, Norman Foster, Ron Arad, and David Chipperfield were among the team's *Who's Who* of marquee-name architects, each charged with designing one of 12 floors, budget no object. Jean Nouvel, who orchestrated the roof deck, top-floor suites, and facade awnings, says the Puerta América is "not a symphony, but a lot of little songs."

For the hundreds of reporters who trooped from floor to floor at a recent press preview, the hotel seemed more like fascinating cacophony. British designer Kathryn Findlay has fashioned an all-white cocoon with a suspended bed, deep-plush fabrics, and organic/amorphous furniture. Arata Isozaki's dark chambers, inspired by Junichiro Tanizaki's poetic book *In Praise of Shadows*, include bathrooms with austere cedar bathtubs and showers. Plasma Studio dreamed up a garretlike Caligari's Cabinet of faceted stainless steel, with LED light strips streaking through the seams. Richard Gluckman created serene backlit light boxes in cool blue and lemon yellow, with faux-leather poufs, fiber-cement-board walls, and industrial carpeting—a 1970s New York crash pad.

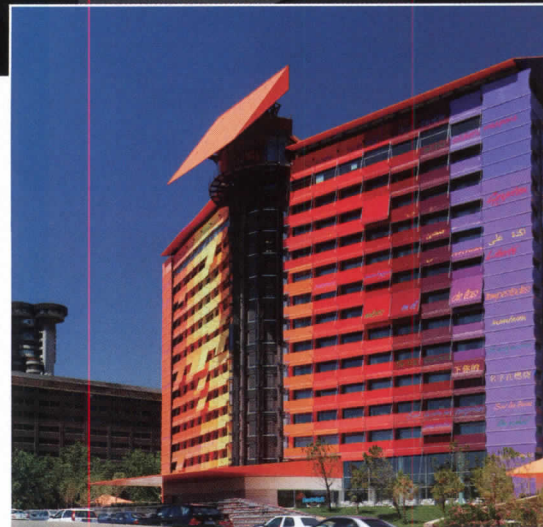
The standouts are Hadid's enfolding landscape of continuous polished curves in "solid-surface" acrylic finishes and a choice of total-immersion white, black, or crimson; and the jazzy racing-car cockpit capsules, made of the same material and containing bed and bath that Arad dropped into each of his rooms. Like several other designs, these floors are a tribute to the materials and craftsmanship of the main fabricator, B&B Italia. Foster's backlit, translucent marble counters, woven-leather wall surfaces, and curving, illuminated glass walls, for instance, are exemplary. Chipperfield's calm spaces, with terra-cotta platforms and pale blue ceiling canopies, serve as a counterpoint to Nouvel's suites, where large baths open into living areas via sliding glass walls. Mildly suggestive photos by Nobuyoshu Araki and Alain Fleischer are projected onto walls of Nouvel's rooms with a voyeuristic flourish.

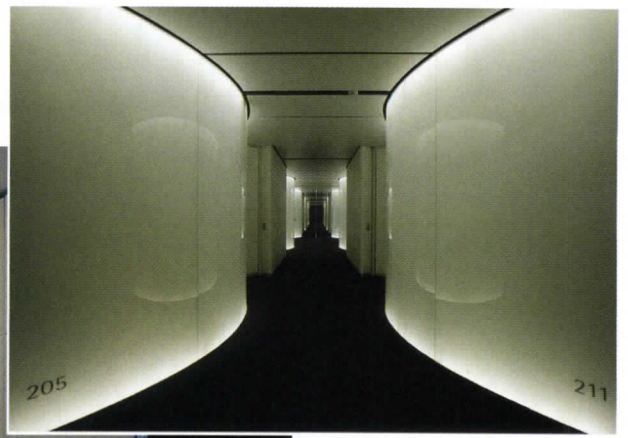
Surprisingly, many guestrooms are all black—sleek and tough. (Nouvel walks the fine line between "liberté," the hotel's motto, and lib-ertinage.) At the opposite end of the spectrum, all-white rooms reign—some cozy, others cool ("a high-class chemotherapy clinic," sniffed one Italian journalist about Foster's rooms)—along with a proliferation of bathrooms opening onto or melding into the bedrooms.



### Jean Nouvel

Steam causes virtual photos to emerge on the glass between bath and bedroom in Nouvel's chambers (above). The architect also designed a colorful canopied facade (right) for the building, by SGA Estudio.





**Foster and Partners**

Bathing and sleeping functions occupy the cabinlike spaces of Foster's rooms. Off-white leather walls, even in the bathroom, convey a sense of cloistered luxury. Foster's curving hallways (above) float between borders of light.

**athryn Findlay**

the Scottish architect, in collaboration with interactive designer Jason Bruges, created a lobby on an upper floor, which features an undulating, amorphous bench (right) that prompts guests to interact with it. A "memory wall," constructed of fiber-optic panels, records and projects guests' movements.



The overall ambience seems to appeal openly to sexiness and fun. Hadid specified backlit, stenciled LEDs along the hallways for the room numbers and “Do Not Disturb” signs. A virtual photo appears when the glass steams up in Nouvel’s bathrooms. The polka-dot pattern of electric sensors in Findlay’s hallways, designed in association with artist Jason Bruges, blink on and off in waves as guests pass.

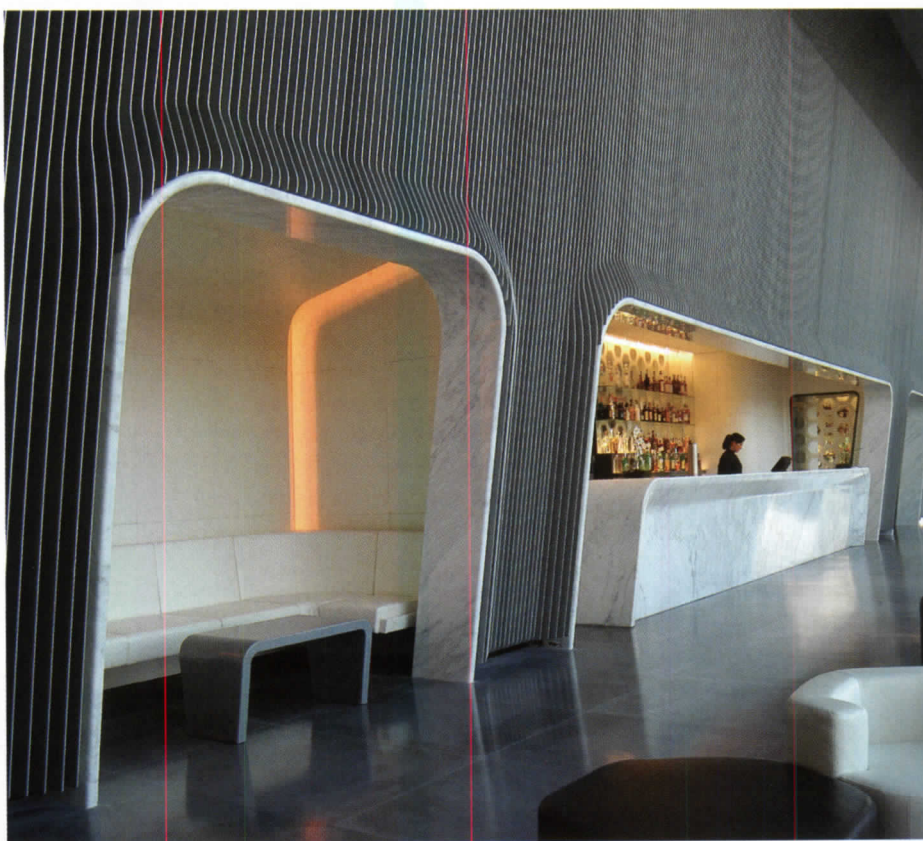
Going against this trendy starkness is a pop kaleidoscope of jarring colors and patterns, orchestrated by Barcelona graphic designer Javier Mariscal, who furnished a hotel in Bilbao for the same owners (the Barcelona-based Silken Hotel chain). The Seville fashion designers and decorators Victorio and Lucchino have filled rooms with “neo-Deco” inspired objects. Australian designer Marc Newson aimed for a “totally posh” interior, with polished red-lacquered hallway walls and water-carved, statue-quality Carrara marble lining bathrooms. You have to leave his spalike enclave and venture downstairs to the Newson-designed bar to find some of his funkier, organic chairs.

Other impressive ground-floor spaces include John Pawson’s calming lobby lounge and check-in area. Christian Liaigre’s restaurant, however, has an uninspired Spanish theme.

The eclectic collection of high-profile designers says something about the architectural sophistication of Spain’s business class, with the predominance of foreign studios and figures who, like Foster, Hadid, and Isozaki, have established presences here. Significantly missing from the roster are any of Spain’s own top architects.

Cutting-edge interiors aside, perhaps the hotel’s main drawback is the unremarkable commercial design of the building itself, by Madrid’s SGA Estudio (Jean Nouvel only did the facade), which reveals the origins of the project as a generic business hotel. The architecture provides no cohesion for the widely scattered interior design styles, particularly the poor ground-floor layout. Nouvel explains that he sought only to “dress” the facades with brightly colored awnings, which, coupled with the Madrid designer Teresa Sapey’s supergraphics in the parking garage, add superficial flash.

Sited beside the highway gateway between Madrid and the airport, Puerta América turns a choice, but unattractive, location into a true destination. The latest design trends have turned reserving a room into a major lifestyle decision. ■



### Christian Liaigre

A hotel restaurant, *Lágrimas Negras* (Black Tears), by Liaigre, a French designer, features a backlit acrylic bar decorated with abstract motifs. A wine-storage wall separates the bar from the kitchen.



## Newson

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## Plasma Studio

The halls and lobby of  
the floor by Plasma  
dramatically update  
20th-century German  
Expressionism. Here,  
LED lights spark the  
seams between facets  
of stainless steel  
(right). Shiny steel  
continues into the  
glass-enclosed baths  
inserted into the sleep-  
ing areas (above).





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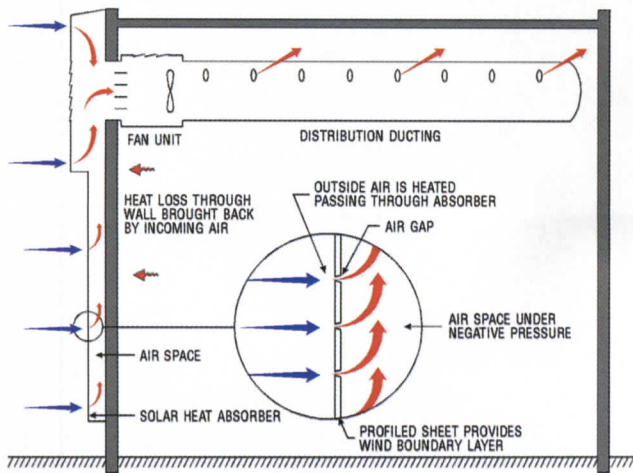
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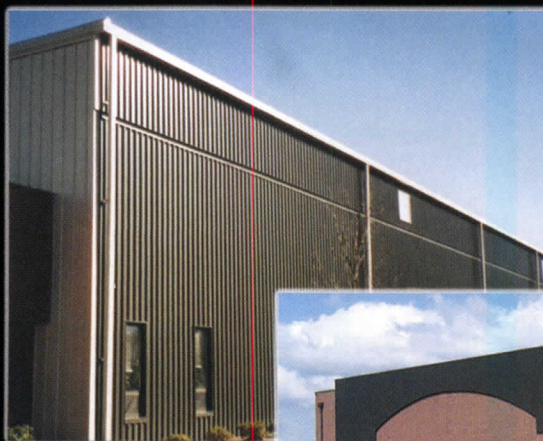


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# Record Interiors

## 2005

**L**ike the famous “riddle wrapped in a mystery ...” then rolled in an anchovy, the projects in Record Interiors 2005 are intriguingly multilayered (though some more enigmatically than others). Our featured architects, layering their creations from the outside in, have altered the inner character of what was in most cases an existing shell.

At Aoba-tei restaurant in Sendai, Japan, for example, Hitoshi Abe transformed the interior of a bland office building by inserting a steel capsule, or skin, perforated with abstracted images of trees. The resulting effect poetically evokes dawn or dusk in a forest.

Here, as in several other projects, sharp corners and boxy containers vanish behind curving surfaces that meld walls into ceilings and floors. For the Bizarre boutique, in Omaha, Randy Brown produced a seamless spatial insertion, modeled like origami from a single sheet of paper. At Endeavor Talent Agency, in Los Angeles, Neil Denari cast an icy white flow of ceiling and wall planes with occasional splashes of intensely hued, unconventional wallpaper by the graphics firm 2x4. And at Template House, an apartment in a Beijing high-rise, Michele Saeë shaped an interior with sensuously smooth and curving floor-to-ceiling planes of cherrywood.

For Cassandra Fahey’s own loft in North Melbourne, Australia, the architect slipped a huge, red, translucent sculptural form—containing actual rooms—within a gritty industrial warehouse, behind the commercial supergraphics of its existing facade.

And though ARTEC designed the entire building for its Löwen von Aspern pharmacy, outside Vienna, the firm provided a relatively modest box for its interior accretions. Whereas many of the other projects focus on inner skins, this one emphasizes bony structures—in the form of ceiling-suspended aluminum display cases—that define the space.

Finally, for The Modern, a restaurant inside New York City’s Museum of Modern Art, Bentel & Bentel retained the space’s original rectilinearity, while dematerializing its surfaces with miragelike layers of shimmering materials: ripply, hand-polished stainless steel, translucent glass, and stretched PVC membranes.

So, as you enter the following pages, we encourage you to peer within (and between) the rich strata of inner layers. *Sarah Amelar*

For more information on these projects, go to Building Types Study at [www.archrecord.com](http://www.archrecord.com).



The firms featured are:

1. Cassandra Complex
2. NMDA
3. Bentel & Bentel
4. Atelier Hitoshi Abe
5. ARTEC Architekten
6. Michele Saeë Studio
7. Randy Brown Architects

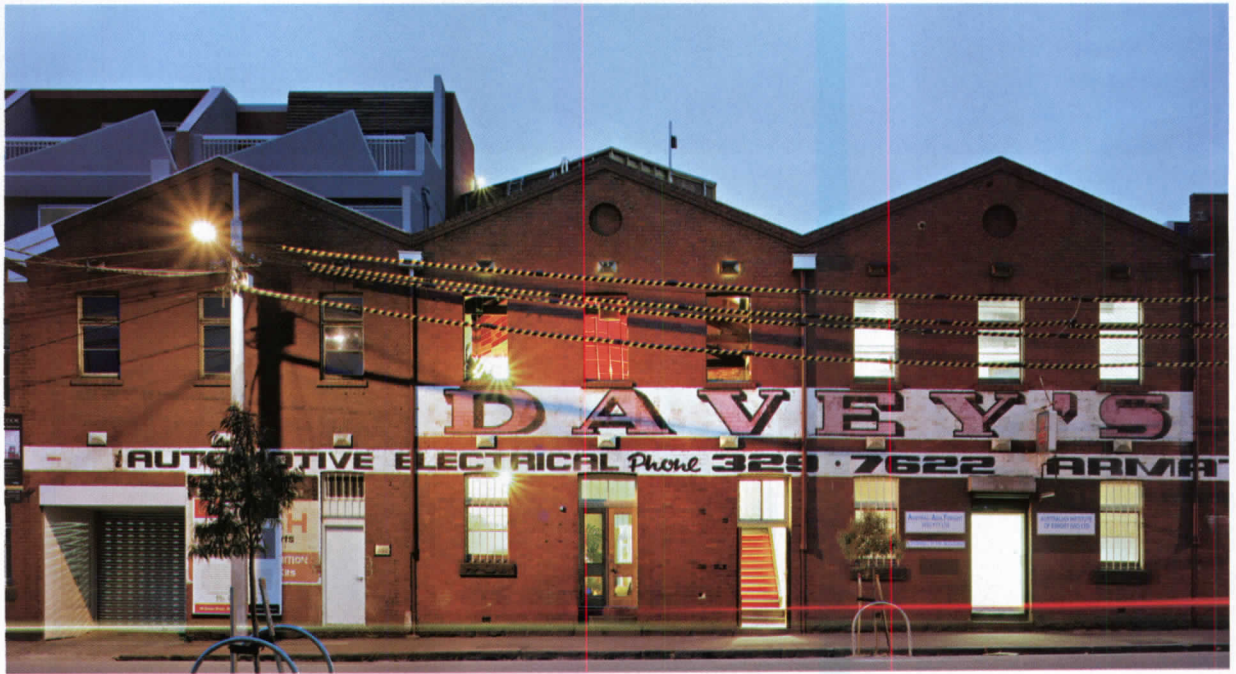






A sculptural, steel-framed form, clad in glass tiles, plays against the open industrial loft space. Housing bedrooms, bathrooms, and a den, the great red object glows from within like a lantern. Its inset bathroom, with resin sinks, can be closed behind a hinged translucent panel.

For **CHAMELEON**, the architect's own loft, Cassandra **Fahey** builds a huge lantern, whose glowing skin changes with the light



By Sarah Amelar

The very first house Australian architect Cassandra Fahey built, designed in 1999 while she was still a student, stopped traffic with a giant headshot of actress Pamela Anderson splashed in glossy blues across its facade. Borrowing freely from popular culture, the provocative juxtaposition overlaid the public face of a private home with the universal ownership of a media icon. For Fahey's own loft, however, supergraphics already accentuated the existing building—with the word *DAVEY'S*, in letters nearly 3 feet high, spanning its entire red-brick, gabled facade. The two-story structure in North Melbourne had started out, in 1910, as a candy factory, but its banner headline came many decades later, when Davey's Automotive Electrical moved in. Though the automotive business vacated this property about 10 years ago, the district—thick with car showrooms and recent loft renovations—has since acquired landmark status, ensuring the permanence of the Davey's sign.

So, unable to change the building's exterior, the architect intervened with an inner facade glimmering behind the original. Now from the street, you can glimpse up at a luminous, curving, candy-red wall set several feet behind the second-floor windows. Like the Pamela Anderson facade, this surface remains publicly present, tantalizingly translucent, yet barely penetrable visually. Partially obscured and lusciously red, the form entices "like those great big lollies they once made in the sweets factory here," says Fahey, head of Cassandra Complex, a six-person architectural firm. Taking evident delight in layering her work with a multiplicity of metaphors and free associations, she adds, "But it's also personally nostalgic, like the great ruby (or fake ruby) ring in a case that I discovered in my auntie's drawer."

To reach the 1,300-square-foot loft, you ascend a straight run of steps that glow with risers of orange acrylic behind perforated metal. At the top landing, a gold-colored door, inlaid with a grid of magenta acrylic circles, marks the new threshold, deftly slipped behind the old entryway. The architect angled the magenta inlays to match the slope of the stairs. As a result, the translucent circles channel sunlight from within the apartment, obliquely casting hot-pink ovals of light along the stairwell.

But the front door is just the beginning. Throughout the loft,

Fahey redirects light and imagery—creating prisms, facets, and axes of refraction or reflection. The range of effects becomes apparent only gradually, while the space's dominant object comes into full view instantly: a red sculptural form, embracing nearly 1,600 cubic feet and glowing from within.

Before the architect designed this loft for herself and her domestic partner, she happened to visit sculptor Richard Serra's *Torqued Ellipses* in its original setting, a converted New York City garage. She was struck by the proportional relationship between the large sculptural forms and the industrial container, or building. Spatially and geometrically, Serra's influence is evident in this Melbourne project, which, like the *Ellipses'* first home, has an open roof structure of old timber trusses. But in materials and function, the red volume differs markedly from Serra's rusted-steel installation.

Steel-framed, Fahey's object brings together 450 glass tiles of various sizes and shades of red and brown. The darker hues, clustered toward the bottom, accentuate the curves. Within the swooping red walls, the architect placed the main bedroom and two bathrooms on the main level and the guest quarters with a den on the mezzanine. Outside the sculptural container, she left the more amorphous zones of kitchen and living room.

Fahey's domestic partner, an emergency-room physician, wanted their home to reflect the changeability (sometimes from minute to minute) in his daily life. And so, the architect recalls, she envisioned her huge, red object as an abstracted chameleon (well, yes, a chameleon that happens to evoke a lollipop, a ruby ring, a Serra sculpture, a lantern, and more). Though not literally modeled on a lizard, the glassy skin changes color constantly with the light. "And because each scale, or tile, rests at a slightly different angle, curious things happen," observes Fahey. "Sometimes we notice a reflection of someone walking all the way across the street. Then they disappear and, a few minutes later, reappear on another tile."

Just as the red object reflects and reframes flashes of the outside world, mirrors—slightly cranked on the east and west walls—intensify daylight in the loft, making up for the absence of windows to the north or south. Further enhancing the sunlighting, a central east-west corridor leading from a window, redirects rays into distant corners of the space

The 1910 industrial building began as a candy factory, but later housed Davey's Automotive Electrical until about 10 years ago. Since the district is now landmarked, the sign is there to stay (opposite). Inside, Davey's recycled Jarrah wood floors complement the original timber roof trusses (this page).

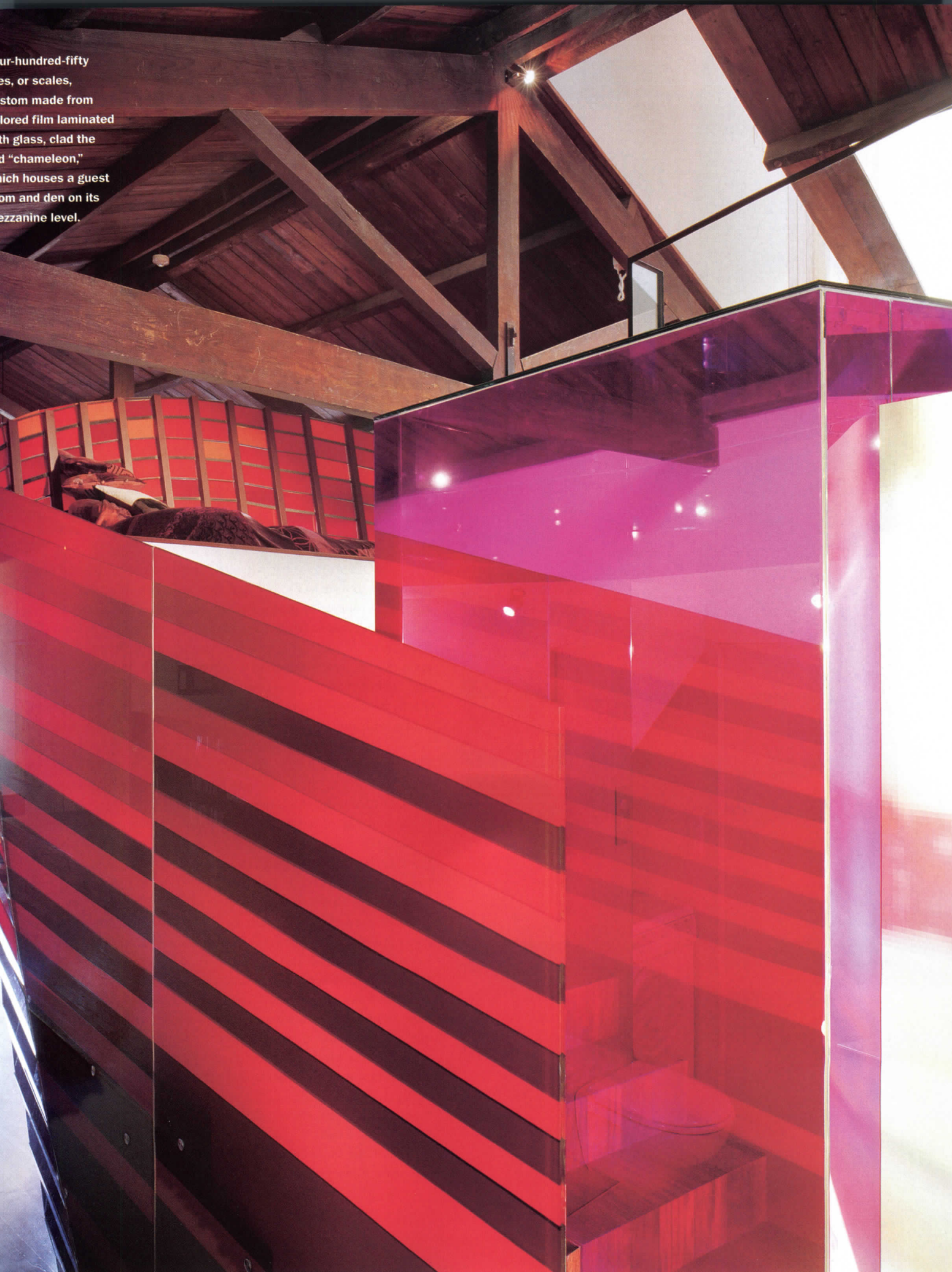


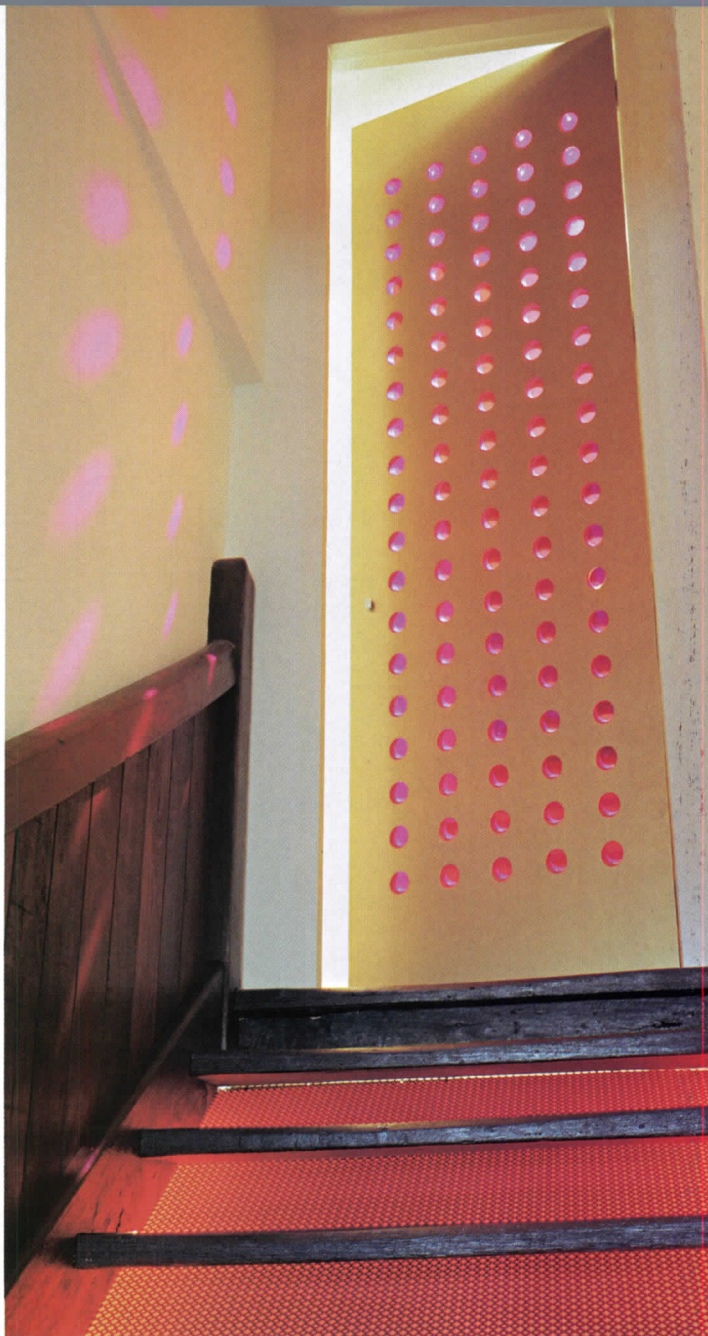


In the kitchen, some walls bear blown-up film clips, originally extracted from the childhood movies of Fahey's domestic partner. The red form casts stripes of crimson light across the kitchen floor (above). In the bedroom (right) and elsewhere, skewed mirrors intensify and redirect daylight.



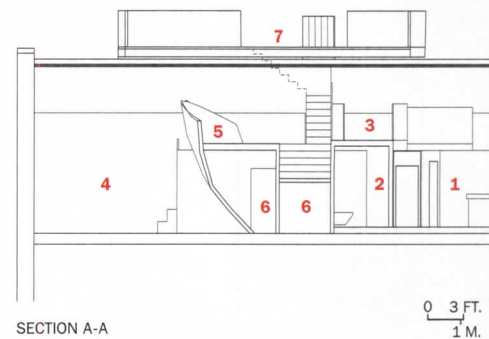
four-hundred-fifty  
scales,  
custom made from  
colored film laminated  
with glass, clad the  
and "chameleon,"  
which houses a guest  
room and den on its  
mezzanine level.





Risers of orange acrylic behind perforated metal lead to the loft's gold-hued entry door, inlaid with clear magenta circles (left). One bathroom has a prismatic assemblage of mirrors, layered glass, and rosy film (opposite).

1. Kitchen
2. Bathroom
3. Guest bedroom
4. Living
5. Den
6. Storage
7. Roof deck



Other mirror tricks, which seem more inventive and poetic than gimmicky, appear in the two bathrooms. In the smaller one, a prismatic assemblage of layered greenish glass; reflective, rose-colored film; and planar mirrors evokes a faceted gem (to accompany the giant ruby). The larger bathroom, cut into the ruby's face, complements mirrored surfaces with areas of luminous transparency, as in the clear, bubbly, blue-green resin of the custom-made sinks—permitting full views of the plumbing. (In a quirky inversion of an optical illusion, the sinks and tub are actually trapezoidal, with angles generated by the building's skewed west wall.)

In the kitchen, where windows overlook the actual streetscape, Fahey's manipulation of imagery takes yet another twist. Here, she papered some of the walls with blurry, blown-up film clips, extracted indirectly from the childhood home movies of her partner. Intentionally vague and out of focus, the images do not overpower the space. "But unexpected moments occur," the architect points out. "From the toilet in the main bathroom, through the mirror above the vanity (which reflects the east-wall mirrors that, in turn, reflect down the corridor), you suddenly see the little face of ... six-year-old Mick."

Remarkably, the loft, for all its mini surprises and eclectic bits, conveys a playful cohesiveness, rather than a fun house jumble. Though Fahey approached the design with an extraordinary mélange of metaphors (and proudly refers to one of her other projects as "a morose grell"), her home—winner of several Australian awards—comes across with architectural clarity and resolution. Remaining abstract (and, yet like a chameleon), it never imposes one particular reading. When the architect recently heard someone propose yet another, metaphor-rich interpretation of this scheme, she responded: "Sure, go with it." ■

**Project:** *Chameleon, North Melbourne, Australia*

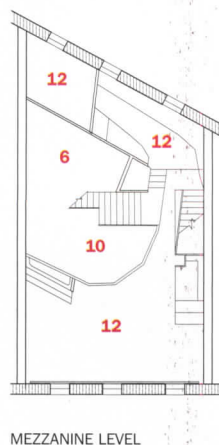
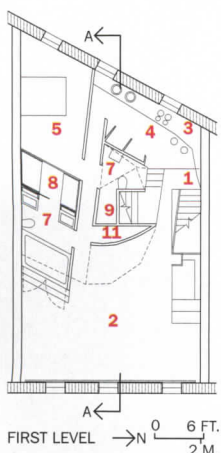
**Architect:** *Cassandra Complex—Cassandra Fahey, principal*

**Sources**

**Laminated glass tiles:** *Steven's Glass (custom, with colored film)*

**Resin sinks:** *Custom fabrication by James Healy and Peter Scott*

1. Entry
2. Living
3. Dining counter
4. Kitchen
5. Master bedroom
6. Guest bedroom
7. Bathroom
8. Wardrobe
9. Laundry
10. Den
11. Storage
12. Void





The screening room, at grade, has an entry facade of glass and anodized aluminum (opposite). On the upper floors, intensely colored end walls contrast with curving, pure white planes (this page).





# Liberating an interior from its boxy container, Neil Denari produces the curvaceous, cool white **ENDEAVOR TALENT AGENCY**



By Joseph Giovannini

It's been worth the wait. Los Angeles architect Neil Denari, AIA, belongs to that category of architect who came to the construction site late—that is, after years of teaching, theorizing, and pursuing projects that proved elusive. But I.a. Eyeworks, a boutique he completed in 2002, finally gave him exposure and credibility. Now Denari is on a roll, with commissions from Los Angeles to Manhattan and Tokyo. Most recently, he completed the offices of Endeavor Talent Agency, on Wilshire Boulevard in the heart of Beverly Hills, a build-out in a 1960s structure.

Endeavor, a new arrival in the entertainment industry, has launched itself on an ascendant arc that has already placed the company on a level with CCA and ICM. In the past decade, architecture has become an attendant art in that industry, with many moguls buying classic midcentury homes, and some commissioning top architects to create pedigreed buildings for their corporate offices. Just down the block from Endeavor, I.M. Pei famously designed CCA's headquarters, setting local precedent for architecture enlisted in the cause of corporate image and prestige.

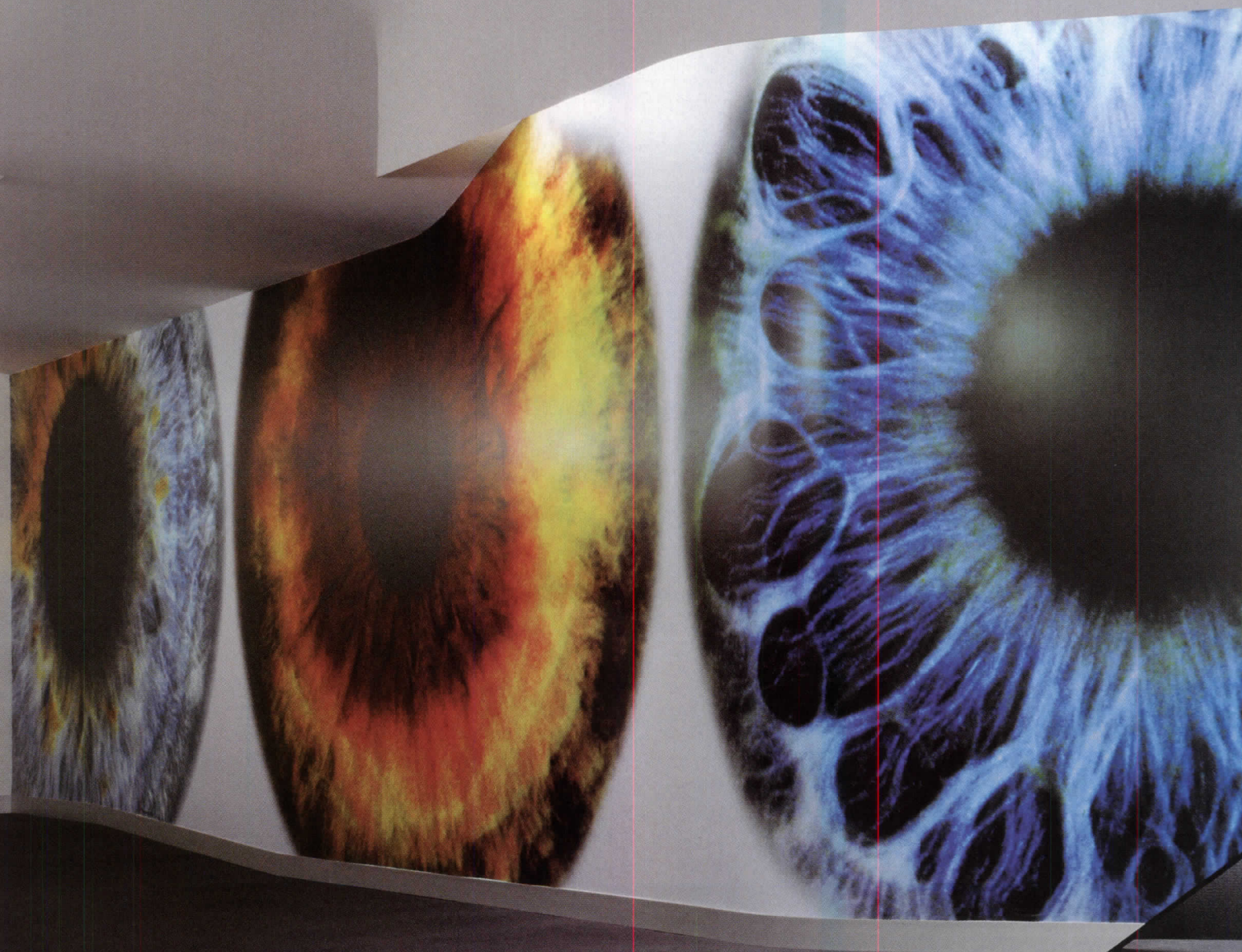
As an agency in need of an architect, Endeavor did what it does

best, launching a talent search and “auditioning” more than a dozen top local firms carefully scouted by Tom Strickler, the partner in charge of the project. The company's previous five-floor home had stratified the agency. For its new quarters, Endeavor leased Beverly Hills's biggest floor plate—at 27,000 square feet—and asked Denari to meld the third and fourth story into a duplex. “Maximizing communication was critical,” says the architect, referring in particular to the rapport between agents and assistants, who usually work just outside the agent's office within constant visual and verbal reach.

The agent/assistant adjacency—an inviolable, almost ritualistic space in Hollywood—constituted the new scheme's building block. Denari, with Duks Koschitz as project architect, gave each agent a window office at the floor's perimeter—just a thin wall away from the corresponding assistant in one of the open workstations clustered in the central space. The program called for meeting rooms, as well as an 80-seat theater at grade, where Endeavor could invite clients for private screenings. Accessed through a streetfront facade of glass and anodized aluminum, this small theater and its lobby comprise 6,100 square feet (bringing the total area to 70,000 square feet). Behind the glazing, a curvy, seemingly folded white wall baffles the entry. Updating the original structure's bland, corporate, 1960s

*Joseph Giovannini is an architect and critic based in New York and Los Angeles.*

Huge images of eyes with vibrant irises animate a bowed wall in the screening-room lobby (this spread). The intent is to change the wallpaper, by the graphic design firm 2x4, every few years.

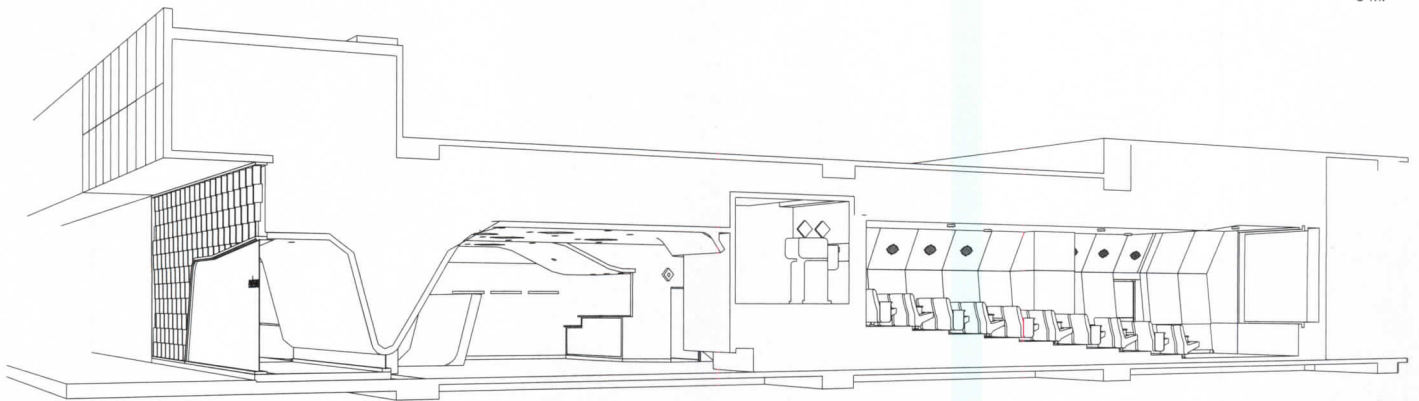




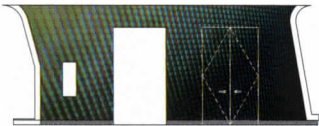


- 1. Lobby
- 2. Conference (shaded perimeter)
- 3. Assistants
- 4. Kitchen
- 5. Agent office (shaded perimeter)
- 6. Restroom

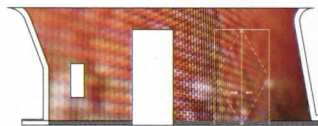
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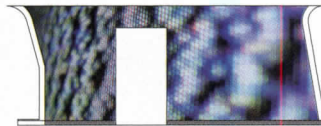
SECTION PERSPECTIVE: SCREENING ROOM AND ITS LOBBY



"GREEN WORLD": THIRD FLOOR



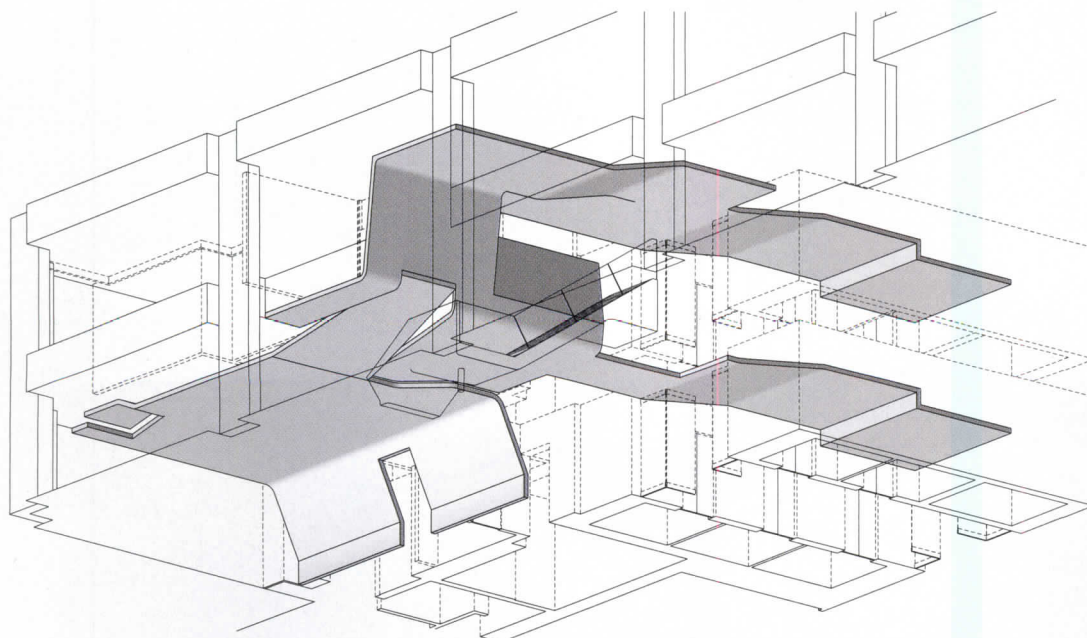
"YELLOW-ORANGE WORLD": FOURTH FLOOR



"BLUE WORLD": THIRD FLOOR



"MAGENTA WORLD": FOURTH FLOOR



AXONOMETRIC: CEILING OF DUPLEX LEVELS

The section (above, beneath plan) cuts through the screening room, in red, and its lobby. Colorfully pixelated wallpapers accent several upper-floor end walls (above). Folding planes—some continuous, some overlapping—weave across Endeavor's ceilings and a few of its walls, melding together the duplex's two levels (left).



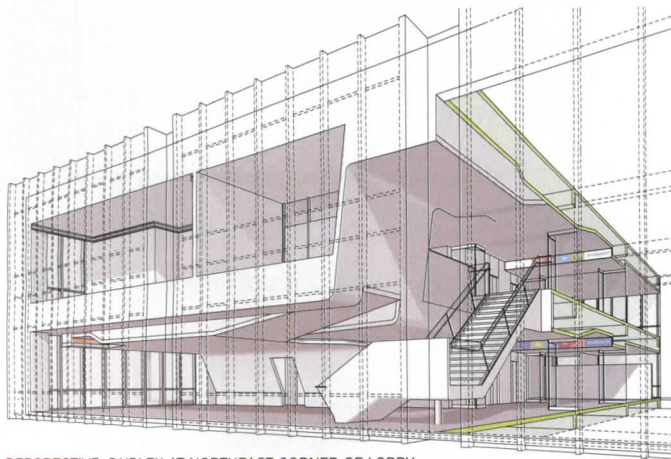
“folded” wall dips  
 down just inside the  
 screening room’s street  
 entrance, forming a  
 raffle between lobby  
 and sidewalk (above).  
 On stairs, the main  
 reception area (right)  
 features a counter  
 containing dashes of  
 fluorescent light  
 behind translucent  
 polycarbonate panels.





Just beyond the reception desk, a dramatic staircase sweeps up through the structural grid to the duplex's

upper level (above and opposite, bottom left). Bending planes define the duplex's lobby and floor above it (below).



PERSPECTIVE: DUPLEX AT NORTHEAST CORNER OF LOBBY

Modernism, the facade recalls Rodeo Drive's boutiques, several blocks away

Upstairs, glass doors off the elevator lobby set the scene, introducing a white, luminous space that feels buoyant. A reception desk fronted with translucent, honeycombed polycarbonate panels, holding dashes of fluorescent lights, establishes an edgy elegance. Just beyond it, a dramatic staircase sweeps up through the structural grid to the duplex's upper level.

The spatial buoyancy comes not simply from the white-on-white palette: Denari liberates the interior from its conventional, box-office shell by curving the walls and ceilings at their corners, creating an envelope that wraps and shapes the spaces—as the architect puts it, “testing the limits of the Cartesian envelope and the right angle.”

This treatment crosses the serene with the surreal, especially in the upper-level and screening-room lobbies, where Denari layers white planes that shift under and over each other. He maps these moves on the ceiling, sometimes making cuts to reveal sectional build-up. In places, the effect becomes almost Baroque—far removed from the mechanical forms that once characterized Denari's work. Only occasionally does the mechanical touch on this ethereal space, as in its porthole-shaped, stainless-steel air vents.

The architecture is mostly overhead. Denari transposes the normal role of the plan to the ceiling, where the planar flow gives the spaces a directional thrust. Morphing into a continuous surface, the walls and ceiling become a universal spatial system that Denari localizes, for example, by bringing the planes to the edge of the stairwell or by opening them to reveal a backlit area. The ceiling play lightens the formality of a plan derived from business protocols that sets up a spatial hierarchy from entry point to offices.

If architects, a couple of decades ago, challenged the expectation of simplicity by offering complexity, Denari now challenges the notion of warmth. With white terrazzo floors, stainless-steel handrails, the occasional metal detail, and a nearly clinical sheen on many of the quasi-antiseptic surfaces, he has developed cool, white spaces that go beyond Minimalism, into an aesthetic approaching frost. The high level of craftsmanship—including factory-molded, curving wallboards—enhances the abstraction, accentuating the sense of eerie immateriality.

The architecture's purposeful and successful emotional detachment is heightened by the work of 2x4, a New York graphic design firm. For Endeavor, this team created wallpaper in intriguingly out-of-focus patterns, as in the boardroom, where TV static appears magnified to an environmental scale. The intent is to change the wallpaper every few years to refresh the interior. In the screening-room lobby, giant images of eyes with vibrantly colored irises now accentuate the slightly surreal aura of Denari's design. Elsewhere, 2x4 has surfaced end walls in intense, unexpected hues in pixelated shades of blue, green, orange, and magenta. The graphic program complements the architecture's aura of icy perfection.

Just as Venus sprang full blown from the head of Zeus, Denari's design seems to have sprung, fully mature, from the midst of his career. The architect may not have come to this commission with a long history of built projects, but he arrived intellectually prepared, and produced a conceptually strong, impeccably executed, and visually powerful space. He understood the brief and the nature of the agency, and delivered his scheme in a confident aesthetic language with cachet and style—the very subject of Endeavor. Sometimes talent is best served cold. ■

**Project:** Endeavor Talent Agency, Beverly Hills, California

**Architect:** NMDA—Neil Denari, AIA, principal; Duks Koschitz, lead designer and project architect; Stefano Paiocchi, Jae Shin, Matt Trimble, Steven Epley, Betty Kassis, Brennan

Buck (graphics), project team

**Sources**

**Lighting:** Peerless; Delray; Artemide  
**Wall covering:** Knoll; Jhane Barnes  
**Plumbing fixtures:** Kohler; Kroin; American Standard

exelated wallpaper on  
e fourth floor plays  
raphically against the  
re extinguisher in its  
set cabinet (top).  
orthole-shaped air  
ents punctuate the  
tensely red screening  
om (bottom right).







# Bentel & Bentel's sleek and luminous café, bar, and restaurant, **THE MODERN**, infuses the Museum of Modern Art with a savory essence

by Suzanne Stephens

For years, New York's Museum of Modern Art (MoMA) has been famous for everything but its food. Even after Sette Mezzo took over its restaurant operations, as Sette MoMA, in 1993, the cuisine and the setting verged on the overly quiet. Now with The Modern, operated by acclaimed restaurateur Danny Meyer and designed by architects Bentel & Bentel, MoMA has a real chance at competing with its high-end Midtown Manhattan neighbors.

As you enter The Modern, on the ground floor of the restored 1939 building by Philip Goodwin and Edward Durell Stone, a bar and café shimmer softly before you in a space originally occupied by a gallery. Here, gleaming wall and ceiling surfaces create a miragelike setting for the bar-and-café area's panoramic end wall, a refulgent photographic mural of a wondrously garden. The mural, *The Clearing* (2003), by German artist Thomas Demand, is a life-size depiction of fake leaves made of paper—but never mind. It rivets your attention, almost making you forget that your view of the real thing—the Abby Aldrich Rockefeller Sculpture Garden—is blocked by a frosted-glass wall. True, the wall is translucent, but you have to be on the *other* side, in The Modern's fine-dining area, to enjoy the famous museum garden with its vines, trees, and sculptures.

Creating an ambitious venue that could offer a choice of casual or formal dining experiences within a tight museum space posed more than a culinary challenge: For starters, Meyer needed a smoothly functioning, dignified restaurant for a clientele who might have a taste for Modernism, but prefer it served with varied and pungent flair (like Meyer's cuisine). MoMA's director, Glenn Lowry, and its chief curator of architecture and design, Terence Riley, wanted to make sure the restaurant would keep the purity and clarity of the Goodwin-Stone architecture, while blending with the recent expansion and renovation by Yoshio Taniguchi with Kohn Pedersen Fox [RECORD, January 2005, page 94].

Although Taniguchi had submitted a restaurant design, Lowry felt that restaurant, retail, and other specialty operations required architects with experience in each particular area—the reason Gluckman Mayner designed the bookshop and Alspector Anderson the conservation spaces. For the restaurant, Lowry and Riley formed their own shortlist of architects, but soon found that Meyer favored the firm of Bentel & Bentel. Although this two-generation architectural practice lacks the high-octane reputation of



The swerving canopy is back on the original Philip Goodwin and Edward Durell Stone portion of the Museum of Modern Art at 11 West 53rd Street.

Inside, a restaurant, café, and bar occupy a former gallery space in the 1939 building, which you enter through the adjacent 1964 annex.





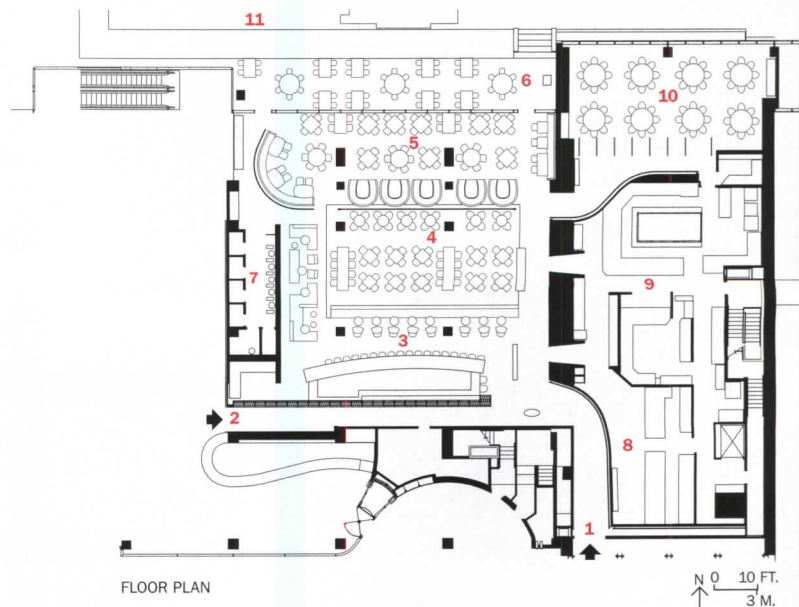
Frosted and bronze-tinted glass—along with the shimmering PVC-over-aluminum-framed ceiling panels and the stainless-steel cladding over the columns—gives the café/bar a dramatic luminosity. The showstopper is the photographic mural, *The Clearing* (2003), by Thomas Demand. The Berlin artist first photographed a park, then created a life-size simulation of the

vegetation with colored paper, lighting it to mimic the sun's rays, and photographed that tableau. The film negative was printed for an 8-foot-long-by-36-foot-high mural, cut in half and inserted between laminated glass panels, 8 by 18 feet in size. The each 2,500-pound section was flown from Germany and clipped in place on the west wall.



Visitors enter the restaurant (above) from the lobby of the building originally designed by Goodwin and Stone. Perforated stainless-steel doors (opposite) close behind them as they walk along a hall past the bronze-glass wine rack behind the bar, into the café. A separate entrance opens from 53rd Street at the end of the Philip Johnson-designed annex.

1. 53rd Street entrance
2. Entrance from museum
3. Bar and lounge
4. Café
5. Restaurant
6. Garden dining
7. Restrooms
8. Café kitchen
9. Restaurant kitchen
10. Private dining room
11. Abby Aldrich Rockefeller Sculpture Garden





global design luminaries, it had created well-regarded, atmospheric interiors for Meyer's Gramercy Tavern and 11 Madison Park, as well as the separately owned Craft—all thronged by New York's restaurant cognoscenti.

Bentel & Bentel won over the museum officials with a design that deftly combines frosted and tinted glass planes, changing ceiling heights, and a range of floor textures (including black terrazzo, white oak, and dark carpet) to differentiate the various programmatic areas of the 14,400-square-foot restaurant. Against the stringently planar rectilinearity of these elements, the architects introduced such streamlined counterpoints as sinuously curved, frosted-glass walls and a gently arcing marble bar, which refer adroitly to the Goodwin-Stone restored canopy and lobby counter and Taniguchi's fritted glass. Besides the 112-seat space for fine dining, 110-seat café, and 18-seat bar, the brief called for two kitchens and a private dining room in the 1964 Philip Johnson–designed annex next door.

To compensate for the bar and café's less-than-soaring ceiling (at only 10 feet 6 inches high), Bentel & Bentel selected low-slung, spare Danish furniture (per a discount arrangement with the Danish government) along with the firm's own custom designs, and covered the ceiling in

a glossy PVC membrane stretched over an aluminum frame. To further dematerialize the structure, accentuating the mirage effect, the architects clad the existing columns in stainless-steel plates with a hand-polished ripply finish, and created a lighted glass wall of liquor bottles and wine racks as a glowing, vitreous backdrop to the bar.

While the café and bar areas provide the gleaming frame for Demand's showstopping photomural, which museum curator-at-large Kynaston McShine selected, a problem remains. The mural is a meta-experience. As stunning (and ironic) as it is, you still want to see the garden beyond the north-facing frosted-glass wall. One solution might have been to provide a translucent glass partition, which gradually becomes transparent as it rises, giving a sense of privacy to those seated in the fine-dining area, while opening up views of the garden and sky.

For its part, the fine-dining room, in a long, narrow, 23-foot-high slot defined by Taniguchi's glazed curtain wall and skylit ceiling, appears dramatic. To give the space some intimacy, Bentel & Bentel designed horseshoe-shaped booths, terminated one end of the room with a bowed, frosted-glass, freestanding partition, and hung acoustical panels from the



The elegant facade overlooking MoMA's famous sculpture garden was designed by Taniguchi with space under the portico reserved for a terrace café (above). The dining room of The Modern soars to a 23-foot-height (opposite). The communal lavatory features porcelain bowls (right).



ceiling. The effect is calm if a bit corporate. By night, however, with candle indoors and lighting in the garden, a more glamorous ambience prevails.

The outdoor terrace, edging the upscale dining area, entices, but when does the restaurant ever use it? Lowry insists it will be up and running in time. But if it is reserved for the fine-dining crowd (the nearest kitchen for the priciest menu), then the casual garden café—where museumgoers in the old days could sit for hours sipping coffee—would be lost.

Cavils aside, The Modern merits its front-and-center position within the museum. Well deserving of its name, the space evokes a 1930s sensibility without being too austere—or, on the other hand, too themed. It forms a compelling insertion into a historic building. And best, it's a place where you'd want to hang out. Now when you say, "Meet me at The Modern," you might mean for a drink or food, as well as art. ■

**Project:** *The Modern, New York City*  
**Architects:** *Bentel & Bentel—Paul Bentel, FAIA, Peter Bentel, AIA, Carol Bentel, FAIA, Susan Nagle, Frederick Bentel, FAIA, collaborating principals*  
**Lighting:** *George Sexton Associates*

**Sources**  
**Acoustical plaster ceiling:** *Baswapho*  
**Terrazzo flooring:** *Krisstone*  
**Furniture:** *Fritz Hansen; Erik Jorgensen; Kobenhavn Design; Albrecht Studio; Globe Furniture; R. Randers; M. Cohen & Sons*







# Deep inside the **AOBA-TEI** restaurant, Hitoshi Abe's design evokes dappled sunlight filtering through an allée of trees

by Naomi Pollock

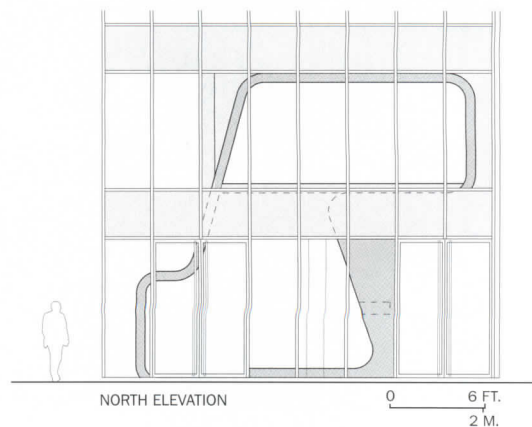
**A**oba-tei may be more than 200 miles from Tokyo, but the exclusive French restaurant is anything but provincial. Set in Sendai, a city of 1.2 million, this dining venue features a design by Hitoshi Abe, Sendai's own architectural wunderkind. The two-story interior combines a technological feat with a magical aura. Here, a multitude of tiny lights shines through the space's sophisticated S-shaped volume, defined by a continuous, curving sheet of perforated steel. Embedded in the base of a seven-story, steel-framed office building, kitty-corner from Toyo Ito's Mediateque [RECORD, May 2001, page 190], the restaurant is the architectural jewel of an entrepreneur who made his fortune mass-producing the local delicacy: beef tongue. Beef tongue is for the hoi polloi. And Aoba-tei is strictly haute cuisine.

Abe got the commission after the hamburger joint in the existing building went belly up, leaving the lower two floors—a total of 2,370 square feet—for his client to lease. The architect's desire to connect the two levels seamlessly inspired him to insert a second cocoonlike skin, encapsulating an autonomous space. Within the shell, a large hole in the upper floor allows the stair's twisting leads to lead from the reception area, on the ground floor, to the 30-seat dining room above. Here, invitation-only epicures sup at Abe-designed, walnut "cow" tables or, as is preferred in Japan, the counter, where they can chat with the proprietor—an important component of a good meal. The counter, a massive hunk of walnut, makes its way through the room, morphing into a five-seat bar at one end and pointing toward an open grill at the other. The actual kitchen, designed by Aoba-tei's celebrity chef, lies sequestered behind the steel screen.

The architect wanted to relate the restaurant directly to the street—a six-lane commercial artery lined with gracefully shading elmkova trees—but did not have permission to alter the existing curtain-wall facade. His solution was to distill an image of the trees into an abstract pattern of dots, and then punch them into a steel screen. The transfer process involved separating a photograph into four gradations of



**A private dining venue, Aoba-tei displays no signage (above). A stair with steel risers, lit by bluish LED tape lights, glows (above and opposite). Temporary greenery in the reception area (opposite) complements the shadowy tree images above it.**



Naomi Pollock is RECORD's Tokyo-based correspondent.





An interior shell of perforated steel arches overhead (this page and opposite). This metal capsule bears photographs of the trees, translated into a backlit dot screen of small holes. Abe permitted a structural beam to breach the shell over the bar area (opposite).



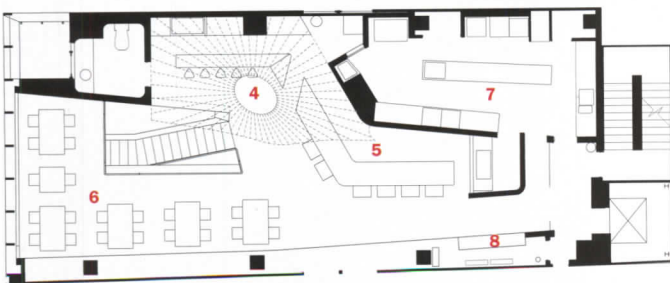
LED tape lighting produces a mistlike blue halo over the stairwell, even from a vantage point where the steps are not visible (right). The effect evokes dusk or dawn in the forest.



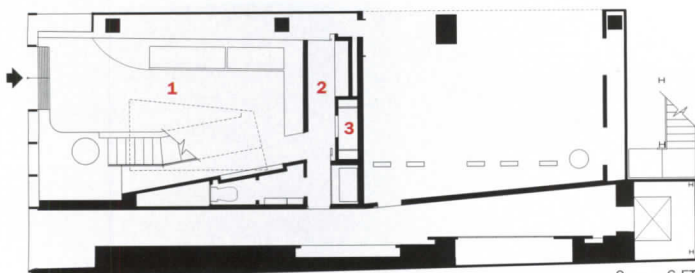
1. Entrance Hall
2. Reception
3. Coat check
4. Bar
5. Dining counter
6. Dining room
7. Kitchen
8. Wine "cellar"

light and dark, and then assigning each gradation a different-sized dot. The photo's lightest areas correspond to the screen's largest circles, and the darkest areas to none at all. While the points range in diameter from 0.16 to 0.35 inches, their centers remain a uniform distance apart—as in a printer's screen—adding an overlay of geometric order to the image's underlying, organic distribution of light and dark.

Once the dot template was ready, it went to a steel fabricator, a shipbuilder-turned-architectural-supplier, who had the technical skills to bore the outlined holes into 0.09-inch-thick metal sheets, and then assemble the perforated-steel components with the precision Aoba-tei required. The capsule could not be pure in its geometry or symmetry because the restaurant's two floor plates are sectionally out of alignment to accommodate the building's entrance, at grade, and an emergency exit upstairs. So the architect devised the S-shaped inner skin—with one lobe on the first floor and another on the second, flanking the stair. Drawing people inside, Aoba-tei's first-floor ceiling gradually ascends from approximately 7 feet high near the front door to 11.5 feet toward the back of the room. Upstairs, the perspective works in reverse, with the ceiling



SECOND FLOOR



FIRST FLOOR



reaching its highest point at the front of the space, where floor-to-ceiling glass opens onto the greenery outside.

Abe likens the shell's single, fluid form to the chassis of a Formula One racing car. To test the structural stability of this component, the fabricators welded together its 3-by-6-foot sheets at the factory. But because the form could not fit through the building's front door, the crew

## ABE LIKENS THE SHELL'S SINGLE, FLUID FORM TO THE CHASSIS OF A FORMULA ONE RACING CAR.

had to cut it up and reassemble the pieces on-site. The contractors finished it off with a dark brown matte paint that masks the necessary new joints and any superficial defects.

With no structural frame to impede the plenum behind the shell, light from 380 mini-krypton (long-lasting incandescent) fixtures, mounted on the back of the screen, shines through the perforations. The effect is one of uniformly muted illumination, recalling daylight filtering through the Zelkova trees along the street front. (Even the restaurant's name, Aoba-tei, means "leafy place.")

Since the tiny bulbs actually shed too little light to let diners see

their food, Abe cut a series of larger holes in the skin and mounted incandescent downlights directed at the individual tables. In contrast to the counter's solidity, the tables and chairs, each made from a single sheet of molded beech plywood, appear as thin and delicate as the screen itself.

Aoba-tei's design succeeds as a sculptural object encased in a neutral box. It has already inspired the owner to open a second Abe-designed location—this one in Sendai Station, where rail passengers can grab a bite before boarding the Bullet train. Glass-enclosed and open to the public, the station restaurant takes a far more extroverted stance than the original private-dining version. The latest venue's "leafy" perforated-steel wall and wood furnishings appear warm and welcoming—demonstrating that Aoba-tei's key design elements, unlike beef tongue, are not an acquired taste. ■

**Project:** Aoba-tei, Sendai, Japan

**Architect:** Atelier Hitoshi Abe—Hitoshi Abe, principal; Naoki Inada, Yasuyuki Sakuma, project team

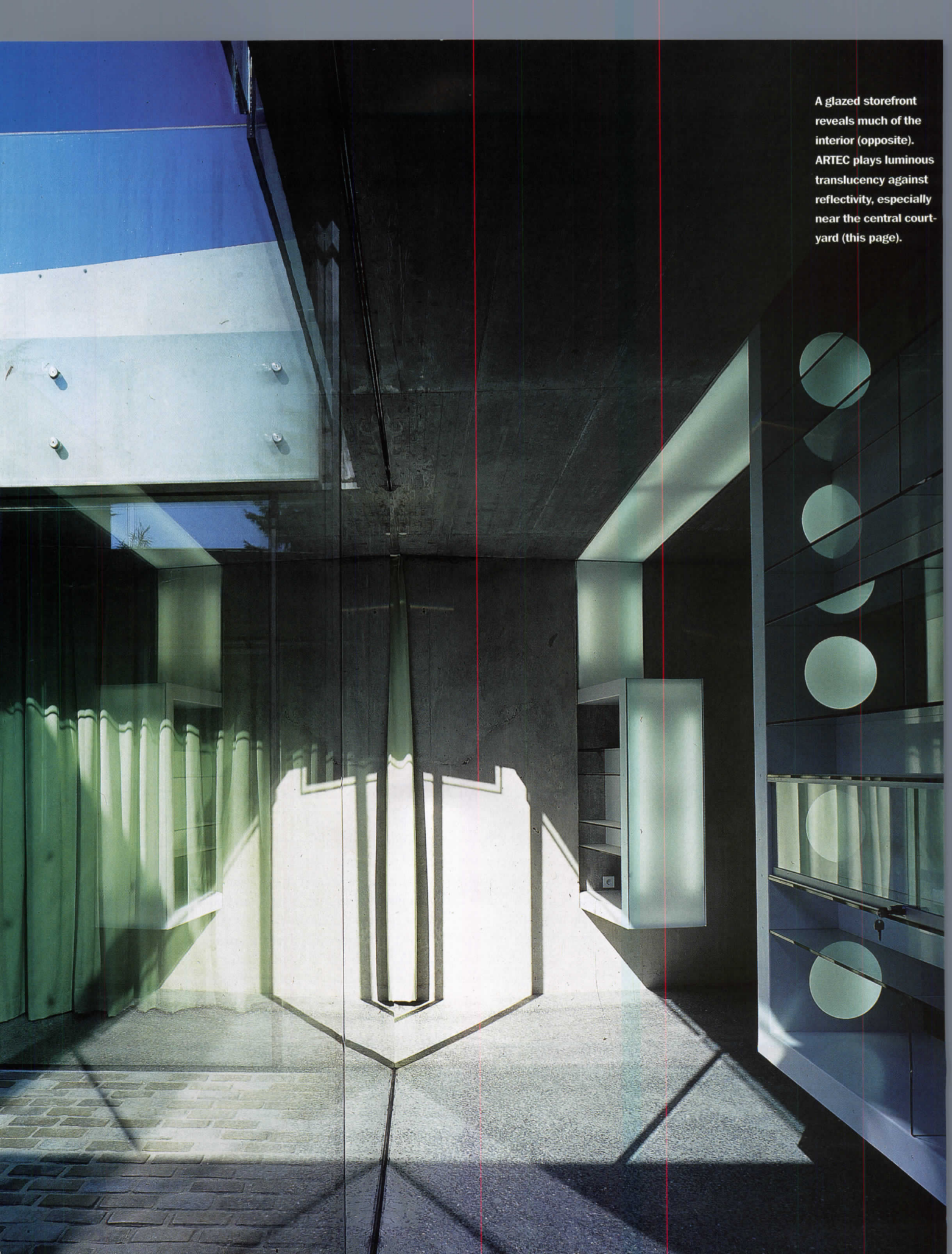
**Engineers:** Arup Japan (structural); Sogo Consultants (mechanical, electrical)

**Lighting:** Masahide Kakudate Lighting Architect & Associates

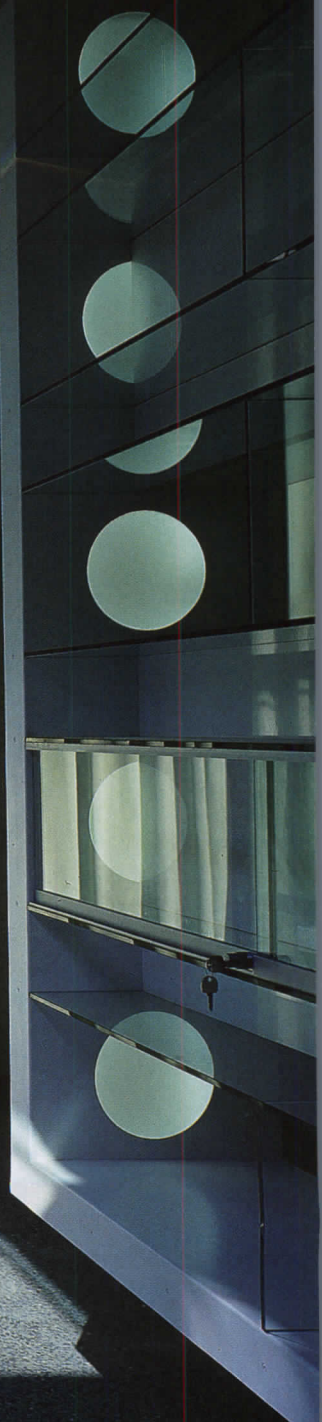
**Sources**

**Floor:** Thule (walnut)

**Furniture:** Tendo Mokko—custom designed by Hitoshi Abe; Cassina—counter chairs designed by Mario Bellini



A glazed storefront reveals much of the interior (opposite). ARTEC plays luminous translucency against reflectivity, especially near the central courtyard (this page).



# ARTEC lends a theatrical flair to the **ZUM LÖWEN VON ASPERN** pharmacy on the fringes of Vienna



by Liane Lefavre

Theatrical pharmaceuticals may sound like an oxymoron, but the idea is not so farfetched for Vienna—a place rife with musicals, parades, balls, cabarets, jazz clubs, operas, concerts, and variety shows. On the city’s eastern outskirts, near the Löwen von Aspern (a sculpture of a lion commemorating the decisive battle here between Hapsburg and Napoleonic forces), the roar of drama reverberates even in the design of a small drugstore.

Apotheke zum Löwen von Aspern stands on Vienna’s tattered fringe, along a service road leading to the Lower Austrian countryside. Nothing in the site’s drab, low-rise surroundings would have earmarked it for an aesthetically remarkable pharmacy. Quite the contrary.

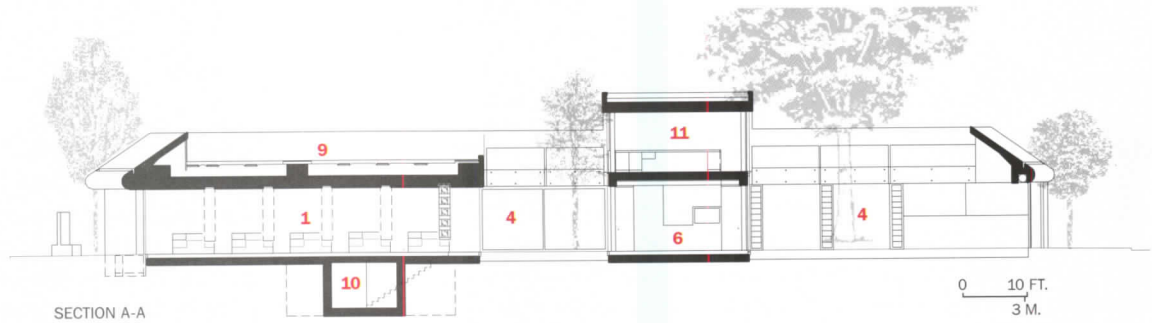
But the apothecary’s owner, Wilhelm Schlagintweit, was a man with a mission. After partnering with Phoenix, a wholesale pharmaceutical company focused on “wellness,” he set out to transcend the usual drugstore offerings. Catering to the influx of suburban yuppies who populate the hip, new single-family houses just a short drive or bike ride from this site, Schlagintweit envisioned a store that would provide coaching in wellness, homeopathic and herbal medicines, and nutrition, along with general advice on Phoenix cosmetics.

Liane Lefavre is chair of architectural history and theory at the University of Applied Arts, in Vienna, and a fellow in urbanism at the Technical University of Delft.

To set the stage for this new venture, the owner turned to ARTEC, a relatively young architecture firm from Graz, Austria—known, perhaps not surprisingly, for residential and commercial designs attuned to hip tastes. Founded in the late 1990s by Bettina Götz and Richard Manahl, the practice was among the first of its generation to embrace a stark Minimalist aesthetic, breaking with the Deconstructivism of the so-called “Graz School.”

Always seeking what Götz terms “the simple form of the complex,” ARTEC responded to Schlagintweit by creating a modest building with a striking interior, distinguished by its spare and dramatic edge. A quiet, 50-foot-wide glazed facade invites views into the 1,350-square-foot space, revealing walls of exposed concrete and floors of polished Confalt (a mixture of asphalt and green-tinted cement that is like terrazzo, but not as hard).

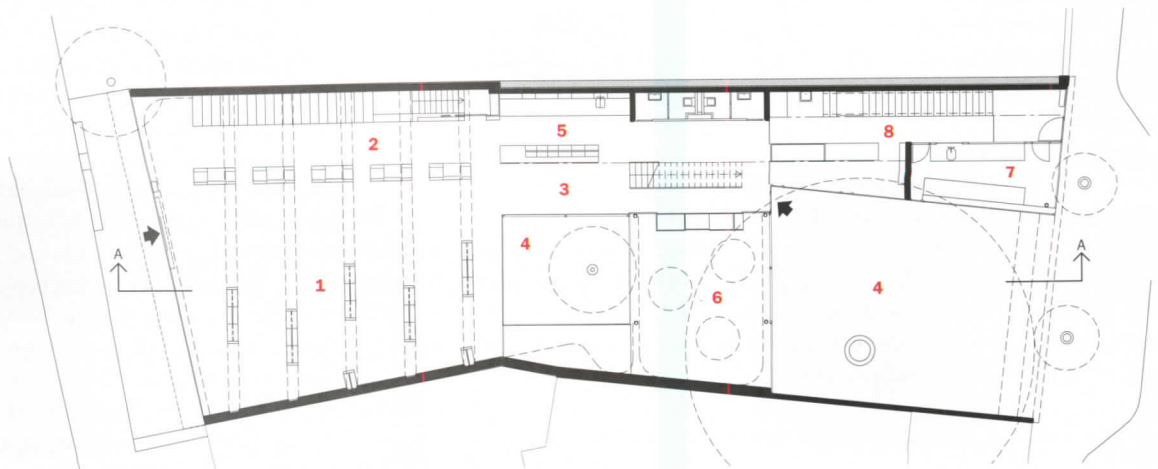
In a spirit akin to the stark stage designs of such dramatists as Robert Wilson, special lighting effects set the mood here. Wide bands of incandescent light stretch up the walls and across the ceiling, wrapping the perimeters of the display cases that hang from above as if suspended weightlessly on glowing wings of light. Abstractly, these aluminum cabinets allude to the mythological phoenix from which the pharmaceutical company takes its name. Other cabinets project from the wall, also without touching the floor. Hung from the reinforced-concrete structure in a staggered arrangement, the wall and ceiling units appear kinetic—as if the lit bands were tracks on which the shelving cases could slide. But the



SECTION A-A

0 10 FT.  
3 M.

1. Self-serve sales area
2. Non-self-serve area
3. Tea display
4. Courtyard
5. Dispensary
6. Seminar/  
multipurpose
7. Laboratory
8. Storage
9. Herb garden
10. Cellar
11. Recreation



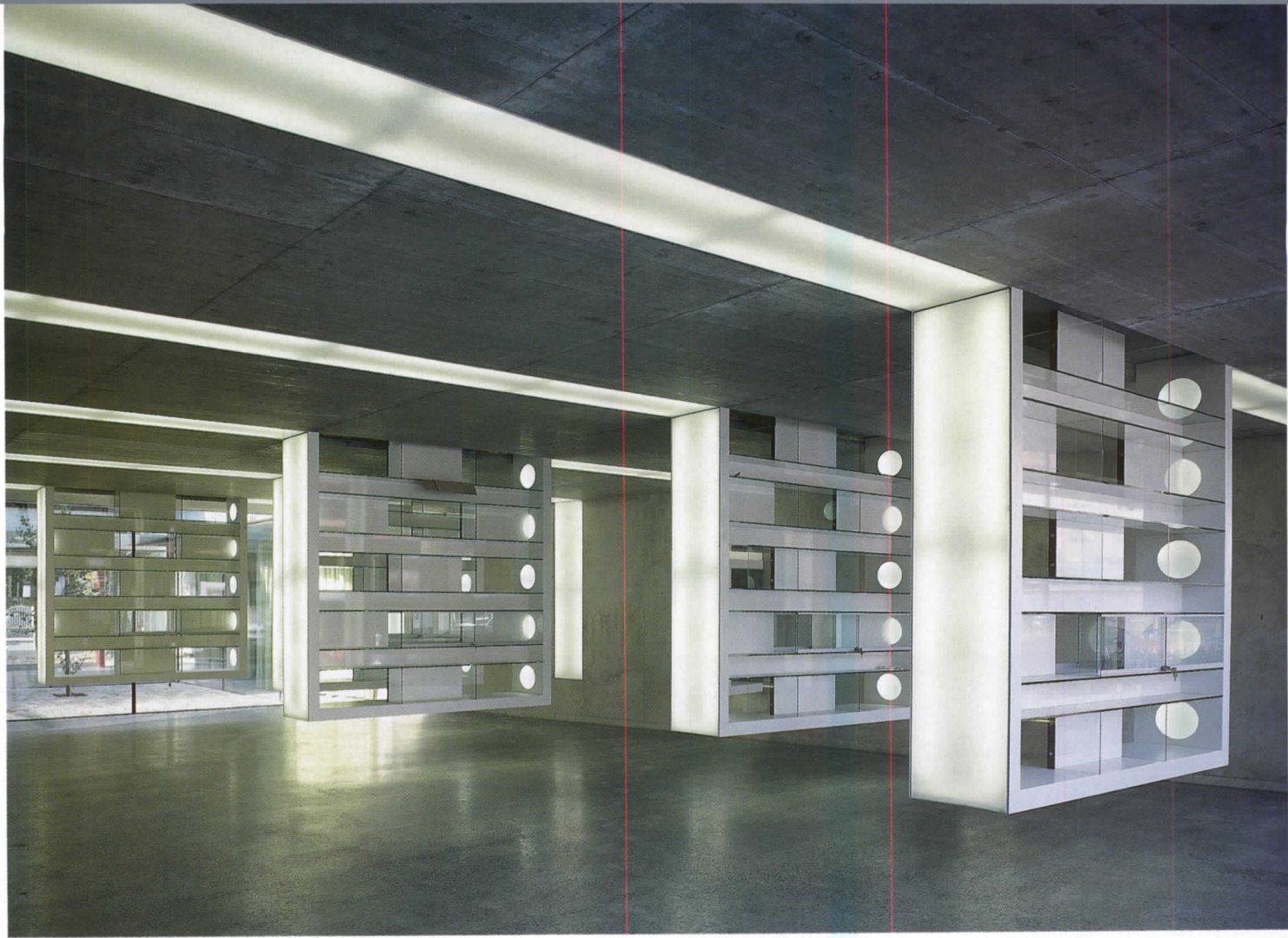
GROUND FLOOR

0 10 FT.  
3 M.



Ribbons of incandescent light run along the sides of suspended cabinets and across the ceiling. A circular motif also edges parts of these aluminum cases (opposite). Some of the shelving units hang from the ceiling, others from the wall (below). White-faced steel cabinets rest on the floor (right and below), storing the employee-supervised products for sale.





prospect of movement remains illusory. Merely sources of illumination, the flush incandescent fixtures actually have an intensity great enough to glow through daylight, even with such an open and transparent facade. At once a spectacle and a stunning feat of subliminal advertising, the interior almost begs for a round of applause.

The pharmacy also features two charismatic dramatis personae: a ginkgo tree, symbolizing vitality and wellness, in a glazed inner courtyard, and an ancient oak tree, apparently personifying strength and long

## THE INTERIOR IS AT ONCE A SPECTACLE AND A STUNNING FEAT OF SUBLIMINAL ADVERTISING.

life, taking center stage in an open-air court toward the back of the building. The facility includes a seminar room and library that can accommodate lectures, consultations, and gatherings.

The apothecary's basic yet elegant reinforced-precast-concrete structure features a post-and-beam system with columns concealed in the side walls, allowing for unimpeded spatial flow between the exterior and interior. Accentuating this effect, the architects glazed much of the non-bearing walls, using reflective surfaces to give the illusion of expansive space. This strategy recalls the work of Richard Neutra in another building for clients committed to wellness, the Lovell Health-House in Los Angeles.

*Thanks to the pharmacy building's subtly concealed concrete*

frame, this airy, transparent store has the brawn to support a roof garden, accessible by stairs from the interior. Modeled by engineer-turned-landscape designer Jacob Fina on the medieval garden of the cloister of St. Gallen, in Switzerland, this herbarium features some 450 varieties of medicinal plants. The staff encourages customers, especially parents with their children, to ascend to the garden for guided tours, which include explanations of the herbal properties. When the visitors return downstairs, they can sample teas prepared from the homegrown ingredients. So the drugstore, with its roof terrace, has become extremely popular with local families on outings.

When Apotheke zum Löwen von Aspern shuts down for the night, a heavy, white cotton curtain, front-lit by floodlights on the floor, falls across this stage, concealing the interior from the street. Only the illuminated top branches of the venerable oak tree and upstart ginkgo remain visible, as if bowing from within this little world of wellness—a final theatrical touch, delivering the closing line. ■

**Project:** Apotheke zum Löwen von Aspern, Vienna

**Architect:** ARTEC Architekten—Bettina Götz, Richard Manahl, principals; Ronald Mikolics, Irene Prieler, Ivan Zdenkovic, Wolfgang Beyer, Julia Beer, project team

**Engineers:** Oskar Graf (structural); Christian Koppensteiner (HVAC)

**Sources**

**Sliding glass doors:** Tormax

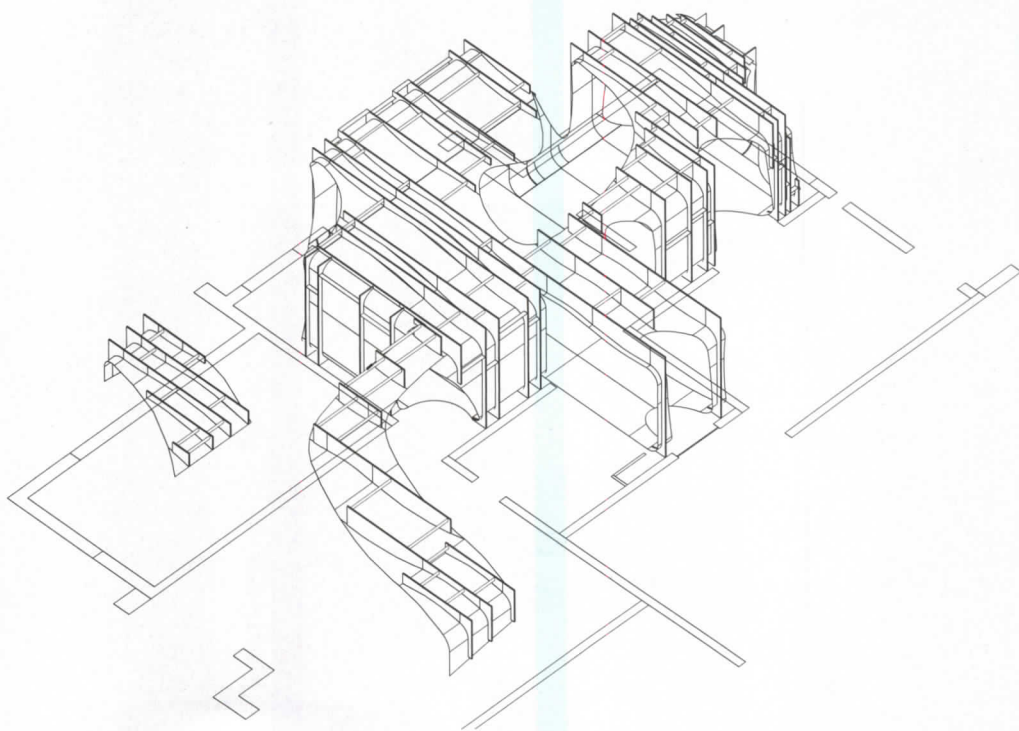
**Lighting:** Die Spanndecke; Sumetzberger

**Showerheads:** Grohe



The wall and ceiling units appear kinetic—as if the lit bands were tracks on which the shelving cases could slide (this page and opposite). But such movement remains illusory. Animating the interior, the parallel bands of light play against the repetition of glowing circles (opposite).

# Michele Sae wraps the interior of a Beijing apartment in undulating planes of cherrywood, creating his sinuous **TEMPLATE HOUSE**



By Clifford A. Pearson

**I**wanted to create a space that embraces the body,” says Michele Sae of the apartment he designed as part of last fall’s Beijing Architecture Biennial. “The idea was to insert a protective layer—like a cocoon or set of clothes—within the existing building’s hard shell.” Italian-educated, Los Angeles-based Sae was one of 10 architects from around the world—including Bernard Tschumi, Odile Decq, Matali Crasset, and Delugan Meissl—selected to design an apartment for an exhibition called *Infinite Interiors*. Set in a new high-rise tower in the Beijing development of Phoenix City, the exhibition units were completed while the building was still under construction. (The developer may eventually sell all of the 10 *Infinite Interiors* apartments.) Though the Architecture Biennial—China’s first—encountered some logistical problems during its three-week run, the interiors proved a big hit. And according to visitor response cards, Sae’s scheme was the most popular.


Here, the architect explored ideas he had first pursued in earlier projects. As far back as the early 1990s, when he designed a pair of stores in the Los Angeles area for Ecrú, Sae shaped interior space with folded surfaces that enveloped the occupants and evoked pleated clothing. At the same time, he began using a limited number of fabrication templates to create an apparent abundance of forms. Both this draping concept and the fabrication method informed Sae’s Beijing Biennial design, a project he calls the Template House. But instead of the faceted edges of the Ecrú Marina store, the Beijing apartment swaddles its residents in curving panels of bent cherry plywood that create a warm, sensual atmosphere.

With just three weeks for initial design, four weeks for design

development, and two months for construction, Sae purposefully devised a building system that he could explain easily and deploy from his far-away base in California. The system relies on just three plywood templates—one for the walls and two for the ceilings—to generate the apartment’s many curves. He originally hoped to fabricate the 4-by-8-foot plywood panels off-site and assemble them inside the apartment. In the end, though, it proved easier for the contractor to build everything on-site, drawing more on old-fashioned handcraft than digitally controlled methods.

Since the tower was already under construction when Sae began his design, he had limited options for laying out the apartment. Existing plumbing stacks determined the bathroom and kitchen locations, and, of course, the building’s poured-concrete shell set an inflexible perimeter. But instead of hiding these constraints, the architect incorporated them into his design. “I wanted to make clear that I was creating a vessel inside a container,” he says. So Sae peeled back the plywood surfaces in places to reveal the hard wall planes behind them. The contrast between the two layers heightens the pleasurable effects of the soft plywood curves. This conceptual approach also had practical benefits: The 1-inch-deep recess between the bent plywood and the building shell accommodates electrical conduits.

To emphasize the spatial continuity of the wrapper, Sae uses the same material for floors, walls, and ceilings: lightly stained and clear-finished cherry ply in the main living spaces and bedrooms, and plaster embedded with colored pebbles in the bathrooms. At corners and thresholds, though, he cut through the monosurface to reveal flat plane



Curtains help define a sitting area in one corner of the living room and reinforce the notion of flowing space. Curving, plywood walls, floors, and ceilings peel away in places to reveal flat, Venetian plaster surfaces.

Sae designed a love seat to accompany a large sofa and ottoman by Isamu Noguchi. All of the furniture echoes the interior's curves.





Keeping the rooms relatively uncluttered, the designer chose and designed furniture that would allow views through the apartment.

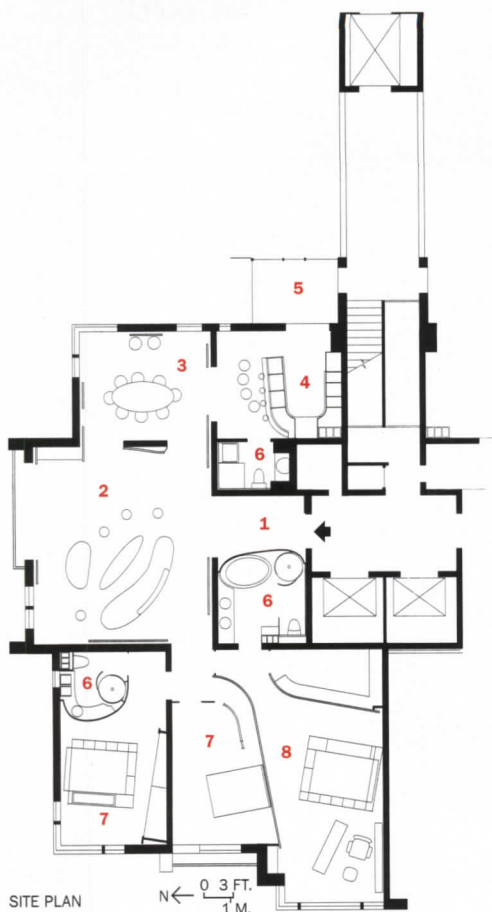




Cutouts in the floors, ceilings, and walls provide opportunities for shifting materials and planes, adding to the dynamism of the plywood surfaces (this page and opposite, top

two and bottom right). Only a curving glass wall separates a secondary bedroom from its bath (opposite, bottom left). All plywood is cherry, with a light stain and clear satin finish.





1. Foyer
2. Living
3. Dining
4. Kitchen
5. Balcony
6. Bath
7. Bedroom
8. Master bedroom

The master bedroom (right) flows into the main bathroom (below), featuring pebbled plaster and a curving glass wall (with a curtain) overlooking the entry foyer.



of Venetian plaster (white and pale green in the public rooms, tan in the master bedroom, and blue in the second bedroom). Translucent gray curtains, hung from curving rods set in the ceilings, can enclose small podlike spaces at the corners of the living and dining rooms, or provide privacy within the curving glass walls of the two main bathrooms.

With so many undulating surfaces, space flows throughout the apartment. “I wanted you to feel like you could occupy the whole place while being in just one space at a time,” says Sae. To create an experiential progression with a sense of movement, he framed views from one room to another and from indoors to the city beyond. This device brings the notion of layering to the spatial sequence as it unfolds, just as the plywood skin does for the section as it curves up and out.

Although the apartment sits in a modern, Westernized tower in a city undergoing rapid globalization, the design alludes obliquely to Chinese culture in its framing and materiality. “The Chinese have a great tradition of wood architecture—making buildings you want to touch,” says Sae. The project’s capacity to connect with older values and the particularities of place, while dressed in sleek modern clothes, may help explain its popularity with Biennial visitors—many of whom are wrestling with similar issues of identity and change in their own lives. ■



**Project:** *Template House, Beijing, China*

**Designer:** *Michele Sae Studio—Michele Sae, designer; Franco Rosete, Zhang Haitong, design team*

**General contractor:** *Sundart*

**Sources**

**Woodwork and cabinetry:** *Dongguan Sundart Timber Products*  
**Bathroom fixtures:** *Dormbracht*  
**Bathtub and shower:** *Hoesch*  
**Sofa and ottoman:** *Designed by Isamu Noguchi*

Only three plywood  
templates—one for  
the walls and two for  
the ceilings—created  
every curve in the  
entire apartment.



The facade (opposite) stands in a shopping mall. Brown offers a glimpse of the pristine interior's underpinnings—metal struts and return-air ducts—near the entry (this page).



# For **BIZARRE**, a boutique in Omaha, Randy **Brown** flows walls, ceiling, and floor into one continuous, sleek white surface



by David Dillon

Omaha is famous for rib-eye steaks and corn on the cob, but not, it's safe to say, for white-on-white boutiques with walls and ceilings that bend like origami and an ambience that seems more Midtown Manhattan than mid-America. But that's what architect Randy Brown, AIA, created at Bizarre, a hip gift store in suburban Omaha that sells lingerie, clothing, jewelry, stationary, and glassware. He designed Bizarre and two other shops in close succession at the same shopping center. Each boutique had a bare-bones budget (\$130,000–\$160,000), but collectively they refine a single design idea.

“We were looking for a way to make spaces, surfaces, and fixtures into one continuous visual experience,” he explains, “and we hit on using small paper models to simulate the effects we were after.”

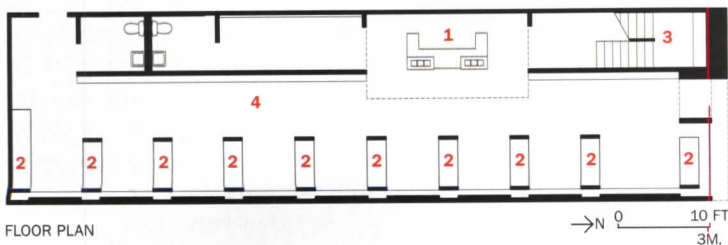
David Dillon, author of 10 books on architecture and urban design, is the architecture critic of The Dallas Morning News.

Brown modeled the place with a sheet of white paper, folded into a tube and snipped with parallel slits. From this studio exercise came a long, thin Minimalist interior—21-by-77 feet—in which walls, ceilings, fixtures, and floors all appear cut from a single white material. As built, the project replaces the usual jumble of tables and display racks with a fluid surface that lends the merchandise some of the qualities of art.

Though Bizarre may appear effortless, Brown went through considerable experimentation in his two earlier shops at this mall to achieve such elegant purity. First, at Modele, an upscale vendor of imported leather bags and \$400 jeans, the architect aggressively played refinement against rawness, juxtaposing smooth drywall with concrete and industrial metal decking, relieved only by two floating drywall planes. Then, with Madame Suren, a shoe and purse boutique, the interplay between toughness and elegance became more resolved and the level of invention higher. Here, Brown transformed a bulky structural column in

PROJECTS

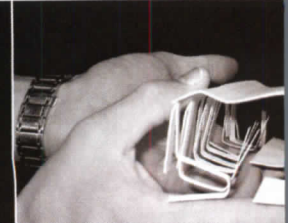
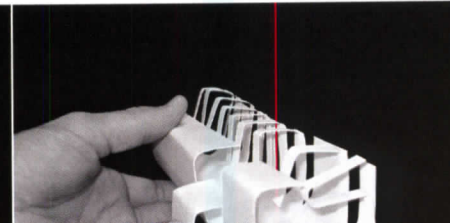
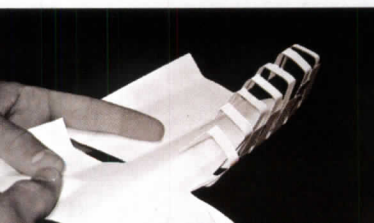




1. Checkout counter
2. Display case
3. Stair to mezzanine
4. Sales area

Brown modeled the interior from a single sheet of paper (sequential strip, prior page and below). The resulting built version appears

seamless with its display fixtures (above right and opposite) and counter (above left) seemingly cut from one continuous material.







Fluorescent fixtures tucked along the walls behind the display cases impart a soft, indirect glow. Against that diffuse light, the edges of glass merchandise shelves appear as shiny and precise green stripes.

the center of the shop into a platform for displaying shoes by extending the base horizontally almost to the front door—a move that presages the nearly seamless integration of wall and display at Bizarre. [For images of Modele and Madame Suren, go to [www.architecturalrecord.com](http://www.architecturalrecord.com).]

This final store of the trio takes the ideas even further. Bizarre's client wanted a clean, well-lighted place that would "look like real New York," the architect recalls, with merchandise "jumping out at the buyers." And she got it. In the long, narrow shop—essentially an extrusion from the front door to the back wall—the industrial aesthetic becomes nearly invisible except for a glimpse of the metal struts and return-air ducts in the ceiling. White epoxy covers the floor. And shadowy voids, created by cuts in the enveloping white plane, replace the bursts of bold color that accented the earlier schemes. As Bizarre's floor, walls, and ceiling flow into one continuous surface, sharp corners vanish.

Everything else about the project becomes streamlined, as well. At the two earlier stores, Brown tucked the mezzanine to the rear, but here, he allows it to rise from the center, sweeping into a dramatic upward curve. U-shaped extensions of the side walls, supported by embedded steel rods, form display racks and shelving, with electrical and HVAC outlets concealed behind them. Similarly, the shop's back-of-the-house functions, such as storage and wrapping areas, slip out of sight, behind by a two-story plane that runs the length of the sales area.

The architect describes Bizarre as a "soft space," less obviously

about merchandise than about light, form, and flow. From the exterior the gentle white glow gets shoppers' attention, and then the deep, uncluttered inner realm draws them in.

Ironically, Brown's role as a local guy with a small office worked to his advantage. Since most of the other mall tenants belong to national chains with in-house architects and standardized design guidelines, his only opportunities came from mom-and-pop operations with small budgets. Fortunately, the clients for all three of his shops had an eye for design and a sense of adventure, allowing him to try out innovative ideas.

"The situation forced us to keep pushing ourselves, to make each project better than the last," says Brown. "If we'd had only one store, we probably would have done a single exploration. But by the time we got to the third project, the folded-paper idea had become powerful for us. And we understood what we could do with ordinary drywall and metal studs."

**Project:** *Bizarre, Omaha*

**Architect:** *Randy Brown Architects—Randy Brown, AIA, project designer; Dirk Henke, project architect; Scott Newland, Lee Shradar, Brian Garvey, project team*

**Sources**

**Paint:** *Sherwin Williams*  
**Hardware:** *Blum; Schlage*  
**Lighting:** *Halo; Metalux*  
**Storefront system:** *Vistawall*  
**Plumbing:** *Kohler; American Standard*  
**Metal studs:** *Flex-Ability Concepts—Flex-C Trac*





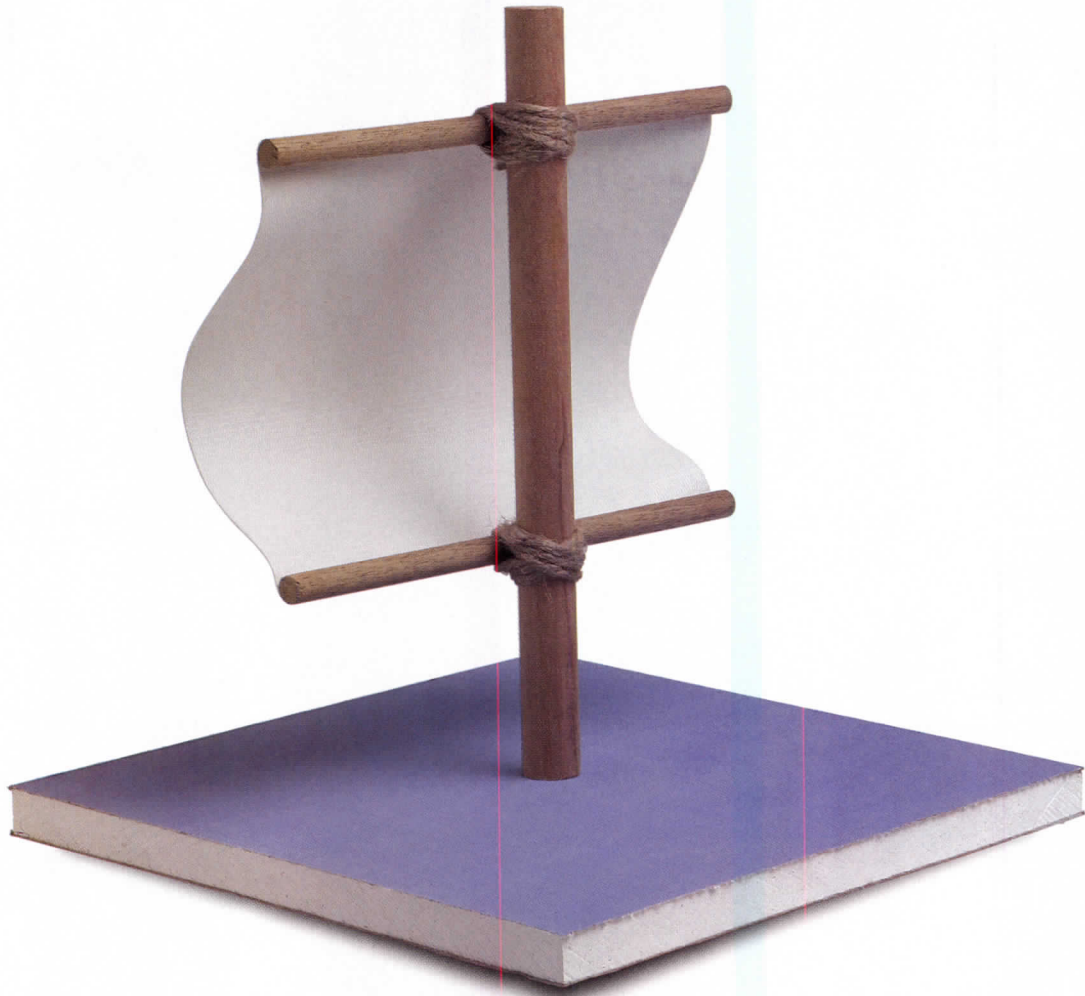
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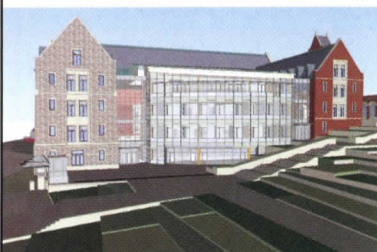
# Architectural Technology

For large commercial buildings, operable windows are literally a breath of fresh air for office workers

(page 161)

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More firms rely on 3D models to win work and manage data (page 171).



A unique assembly system makes a steel mural in Chicago (page 179).



**R**ecent research sponsored by the American Society of Heating, Refrigerating and Air-Conditioning Engineers proves something we all know intuitively: People feel more comfortable in buildings that are naturally ventilated. We're better able to adapt to a broader range of indoor temperatures if we know we can open or close the windows. While we can easily do this at home, those of us who work in large or tall buildings know all too well the feeling of gloom as we step from a sunny, dry afternoon into a building that's sealed off from the outdoors and either too cold or too hot. Thanks to improved facades and mechanical systems, designers are figuring out how to incorporate operable windows into high-rise construction while mitigating problems like noise control, rain and dirt intrusion, and humidity control. Check out a few recent projects demonstrating these new technologies in this month's lead feature.

In the 1990s, techno-evangelists began talking about how 3D CAD and global positioning systems (GPS) would revolutionize the way buildings are designed, documented, and constructed. Today ... well, they're still talking about it, but the difference is that many more firms are testing the waters, and the tools themselves have been enriched with better features. In our second story, several case studies show a wide range of uses for 3D data, from competition entries to assessing view corridors for various planning schemes to detecting interferences between structural and mechanical systems. *Deborah Snoonian, P.E.*

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# Commercial Buildings Open Their Windows

WHETHER IT'S A GREENHOUSE OR AN OFFICE BUILDING, NEW TECHNOLOGIES ARE HELPING DESIGNERS TO PRY OPEN THESE HERMETICALLY SEALED STRUCTURES AND LET IN SOME FRESH AIR

by Barbara Knecht and Sara Hart

The option of installing operable windows in high-rise commercial buildings is rarely, if ever, debated in the U.S. Conventional wisdom preaches that pollution, rain, and noise will infiltrate the envelope if occupants are allowed to open and close windows at will; ambient temperatures will be unstable; energy use will be unpredictable. Operable windows, the argument continues, will add to construction and maintenance costs. And the taller the building, the more vulnerable it will be to all of these negative factors. While it's true that severe pressure differences and high-wind speeds do complicate building design and operation, there are new ways to mitigate the problems. "There are many reasons not to provide natural ventilation and one reason to do it," comments Clark Bisel, senior vice president at Flack and Kurtz in San Francisco, who is, in spite of the drawbacks, a proponent for that one reason: People prefer it. They prefer it because most of them have the option in personal environments. And researchers are suggesting that productivity improves and energy costs go down in buildings where the users have control over temperature and ventilation.

Barbara Knecht is an architect based in New York and Boston. She writes frequently about building technology and related issues.



The Nolen Greenhouses at the New York Botanical Garden have state-of-the-art HVAC systems.

"The more an indoor environment replicates the environment that humans evolved in, the more comfortable people will find it," states David Bearg, an engineering consultant on Indoor Environmental Quality (IEQ), who is regularly called in to fix what has gone wrong in buildings. However, he is cautious about the challenge that lies in managing the intake of natural pollutants, such as pollen, and man-made ones, such as vehicle exhaust. "The problem is compounded by the increasing use of video-display screens that attract particulates and suppress human blink rates. Airborne particulates can penetrate deeply into the respiratory system. Meanwhile, lower blink rates mean that eyes are more susceptible to irritation." Mechanical systems are expected to handle heavy pollutants, but the value of user-controlled openings cannot be underestimated.

Research by Gail Brager, an associate professor in the Department of Architecture at the University of California, Berkeley, shows that in naturally ventilated buildings people adapt to changes in mean outdoor temperature and are comfortable in a broader range of indoor thermal conditions than are people in air-conditioned buildings. Her research involved field studies of human behaviors and perceptions in indoor environments in 160 buildings on four continents and in various climate zones. Findings showed that the availability of personal control over local conditions played a primary role in shifting people's thermal expectations.

The research was sponsored by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), and the results were incorporated as the Adaptive Comfort Standard (ACS) to ASHRAE Standard 55, Thermal Environmental Conditions for Human Occupancy in 2004. For now, the standard allows warmer indoor temper-

## CONTINUING EDUCATION

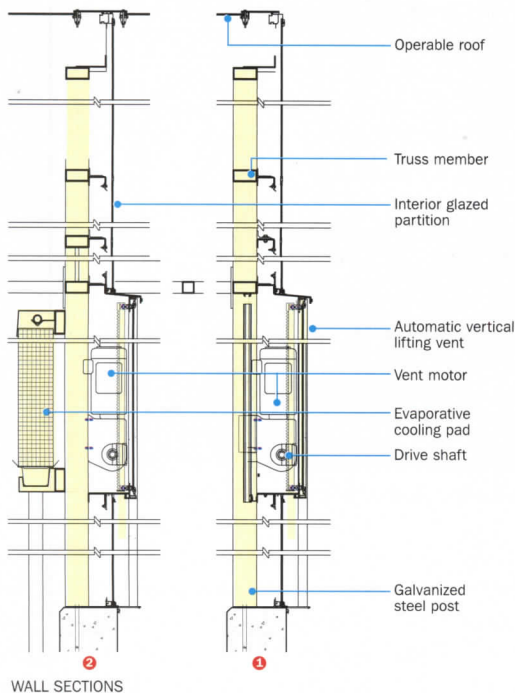
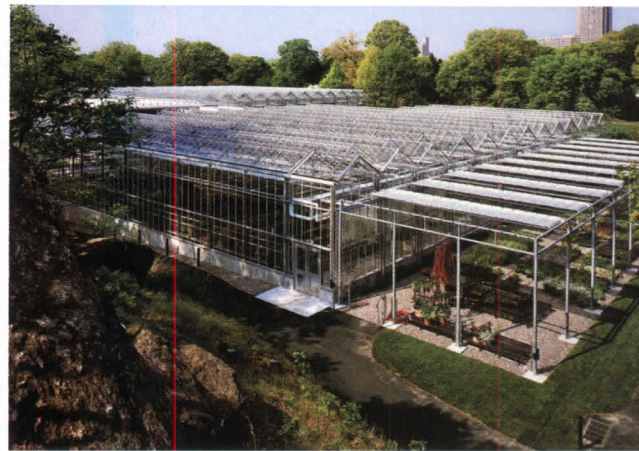
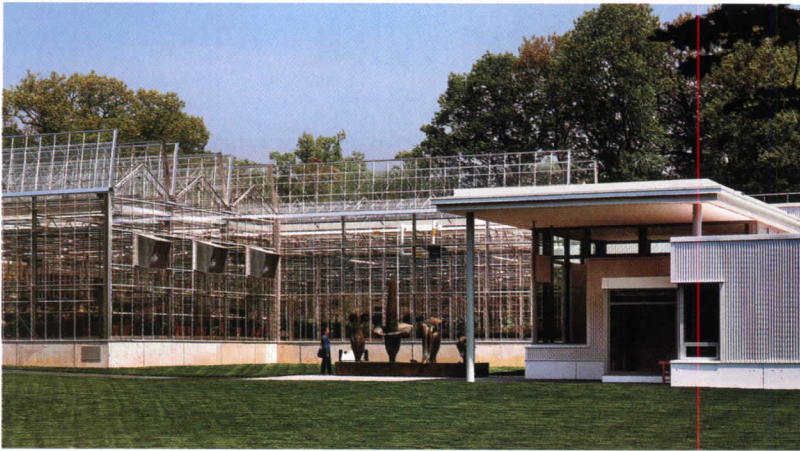
Use the following learning objectives to focus your study while reading this month's ARCHITECTURAL RECORD/AIA Continuing Education article. To receive credit, turn to page 168 and follow the instructions. Other opportunities to receive Continuing Education credits in this issue include the following sponsored section: "Low-Slope Commercial Roofing Roof Cover Boards Provide Outstanding Performance," sponsored by USG, page 189.

## LEARNING OBJECTIVES

After reading this article, you should be able to:

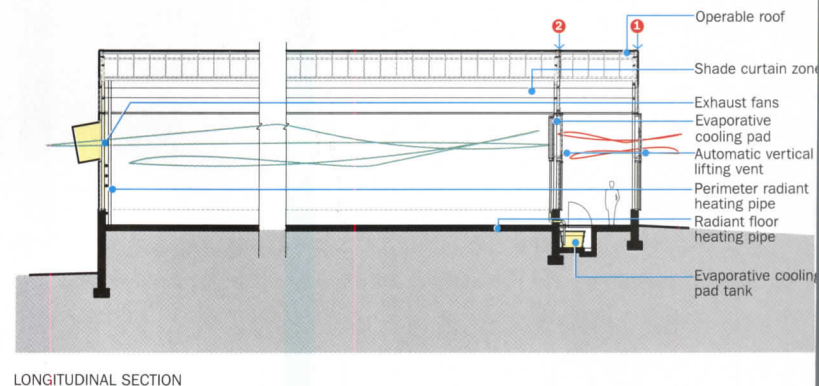
1. Discuss high-rise commercial buildings that incorporate natural ventilation in their mechanical systems.
2. Describe methods of incorporating fresh air into commercial buildings.
3. Explain space planning for office buildings with natural ventilation.

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**Nolen Greenhouses at the New York Botanical Garden**  
 The new \$14 million greenhouses, designed by Mitchell/Giurgola Architects, are composed of eight unique

growing zones (above right) for the propagation of hundreds of thousands of plants. The dominant technical feature is the operable roof (above left), which opens perpendicular to the ground, creating natural thermal air flows. A Tom Otterness sculpture marks the entrance to the headhouse, an administration and a visitors' center.



atures in naturally ventilated buildings during summer and in warmer climate zones, but only when no mechanical cooling is available. Nevertheless, the findings provide useful data about the experience of working in naturally ventilated buildings.

Brager points out that the narrow range of comfort temperatures required by the traditional version of ASHRAE Standard 55 effectively requires more buildings than necessary to be air-conditioned, and has led to our culture's addiction to it. Although the requirements were not intended to create a dependency on air-conditioning, it is very difficult to meet the current standard's definition of comfort without mechanical assistance. The energy costs and environmental consequences of providing constant and uniform temperatures are significant. The potential for energy conservation has spurred interest in expanding natural ventilation to commercial construction, when it is noted that energy costs can easily account for 20 percent or more of a building's operating costs.

**Two buildings, 10 years apart**

The RWE Tower in Essen, Germany, is acknowledged to be the first contemporary high-rise to be naturally ventilated. It was completed in 1996 and remains a model of energy efficiency and excellent design. Built as the headquarters for an energy company, the architect, Ingenhoven Overdeik

Kahlen & Partners, and the engineer, Buro Happold, developed the design based on their runner-up entry in the Commerzbank competition. "The Commerzbank competition entry was a building in a 'shroud' that could breathe. We explored how to provide conditions that people want and systems that would make high-rises more environmentally friendly," says Buro Happold partner Tony McLaughlin. "We built on the principle of the 'air path' used in the Empire State Building to reduce the pressure differential when the windows are opened."

The RWE Tower is a 29-story, 394-foot circular tower with double-skin facade. The external layer is permeable, drawing in and exhausting air through horizontal bands of openings that alternate at each floor. The openings, developed by German curtain-wall manufacturer Josef Gartner and Company and nicknamed "fish mouths" because of their profile, were sized according to Computational Fluid Dynamic (CFD) analysis around the building during peak conditions. [CFD is a method of modeling air distribution; see RECORD, September 2003, page 165.] The "fish mouths" not only provide ventilation, but prevent driving rain from entering the building, and restrict vertical sound transmission through the cavity. The interior layer is permeable, as well, with user-controlled panels that slide open to allow the mouths to breathe.

The outer skin is made up of clear, toughened, single sheets of

The greenhouse units are modular, steel-framed trussed structures. Water is provided by low-volume, low-pressure drip and mist systems.



ass that increase the daylight available to the interior. Clear glass for better daylighting is used in conjunction with remotely operated aluminum blinds for sun protection, which are located in the 20-inch facade cavity. The circular plan was also chosen to increase the opportunity for occupants to be near daylight, by organizing the floor plan into relatively small units of enclosed space, which are generally no more than 23 feet deep from window to interior wall.

“The building has a displacement ventilation system with a chilled ceiling [perforated-metal ceiling tiles with tubing through which

## CLEAR GLASS FOR BETTER DAYLIGHTING BLINDS USED WITH REMOTELY OPERATED ALUMINUM BLINDS FOR SUN PROTECTION.

chilled water passes instead of forced air through ducts], which can handle cooling for the entire building during periods when the outside air is too uncomfortable,” explains McLaughlin. It is designed to work in conjunction with the natural system, shutting off, for example, when it detects that someone has opened a window within a zone. It is also designed to monitor outside wind speeds and to sound a warning when they exceed certain limits, to signal occupants to close the windows. The controls are

immensely flexible in their ability to respond to changing needs or habits with centralized or decentralized operation of blinds, openings, and the mechanical system. User responsiveness is relatively simple in this case, because the building has a single owner/tenant.

Since RWE, an energy company, purports to promote an image of responsible energy usage, its participation in the experimentation with natural ventilation in this project has paid off, literally and figuratively. It saved 30 to 35 percent in energy use over an equivalent conventional building with a double-glazed, single-skin facade. According to McLaughlin, who met with the owner not long ago, “The building has performed very well for them. For us, it is an opportunity to see the excellent results when the architect creates a superior design and the owner is prepared to do something a little different.”

CYTS Plaza, now under construction in Beijing, demonstrates that 10 years later, the concept of using a double facade for naturally ventilated buildings is still the standard. Designed by Hamburg-based architects von Gerkan, Marg and Partners and Arup Hong Kong, this 22-story, 246-foot tower will be the headquarters of a tour-and-travel-services company.

At CYTS, there is a vertical band of louvers in the exterior facade covered by a side-hinged panel on the interior facade, which individual users can open and close for fresh air. The building has a decentralized

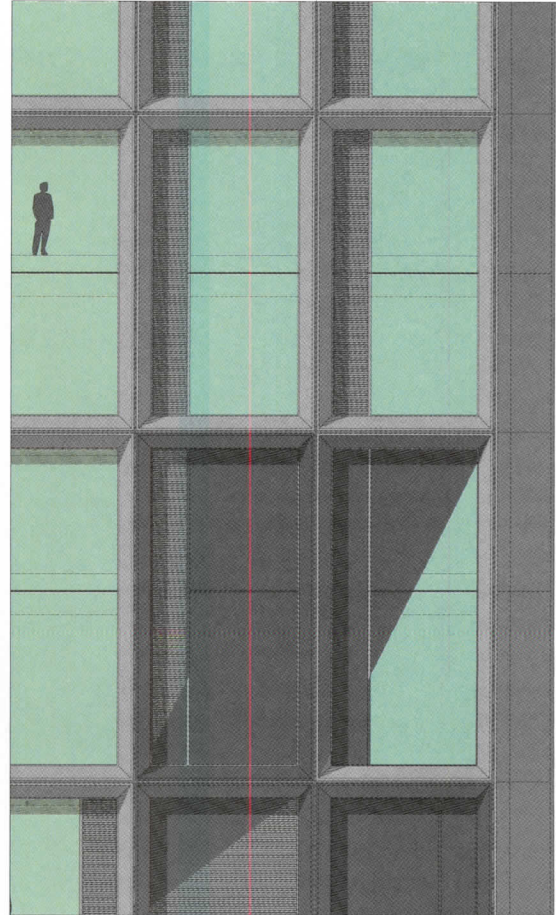
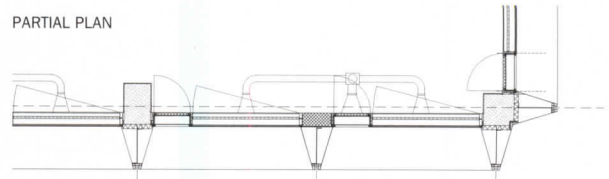


### CYTS Plaza in Beijing

Designed by von Gerkan, Marg and Partners and Arup Hong Kong, the 22-story tower (scheduled to be completed in December) will have a vertical band of louvers in the exterior facade covered by a side-hinged panel on the interior facade, which individual users can open and close for fresh air.



PARTIAL PLAN



FACADE DETAIL

forced-air mechanical system, as well. Each floor is divided into halves, with a special ventilation room along the facade that takes in outside air, conditions it, and distributes it by a ceiling fan throughout each half-zone and into the 15-inch air cavity. Typically, the zone adjacent to the exterior of a building suffers from the most extreme temperature fluctuations. Air circulation next to the outer skin can reduce solar gain in the summer and act as a thermal blanket in the winter.

During the spring and fall in Beijing, it is not unusual for owners to turn off the cooling systems in office buildings. During this time, the ambient temperature depends solely on the circulation of outside air from the intake rooms, and air brought in through the operable panels. At times of the year when the mechanical system is operating, users are still able to open and close the panels, and the system will continue operating. Two large enclosed atria increase the access to natural daylight and the effectiveness of the natural ventilation system to reach all the users. The openings provide a natural smoke extraction system, as well, required by Chinese code under certain circumstances.

If people prefer it and there are successful models to draw on, why are naturally ventilated office towers not prevalent in the U.S.? "You need to understand your climate to embrace natural ventilation," remarked Flack and Kurtz's Bisel. "Northern Europe, northern China,

and northern California are all examples of places with temperate, non-humid climates that lend themselves more easily to natural ventilation than the east coast and southeast regions of the U.S." Although more extreme climates have plenty of days when it is delightful to have the windows open, places that have longer springs and falls and milder summers and winters have more incentive to take advantage of the natural climate in building design.

Space planning and building management are factors that can support or thwart the effectiveness of natural ventilation systems. The spatial flexibility of a large office floor, typical of so much office construction in the U.S. that can be reconfigured constantly for ever-changing user needs, is simply not conducive to the effective employment of user-controlled natural ventilation. The interiors of these floors will benefit less, if at all, from naturally ventilated skins. "If you are 50 feet away from an operable window, you won't feel much of its effect," observed Bisel. "Some enlightened companies reverse the typical office layout and place operable plan offices at the perimeter and private ones at the interior." But those interior offices will not benefit from open windows on the perimeter. Narrow floor plates, as seen in the RWE Tower and CYTS Plaza, lead to smaller units of space in which user consensus over thermal comfort will be easier to attain, and the smaller units of space can be more easily zone





# Avonita

## Designer Superhero

*episode 2*

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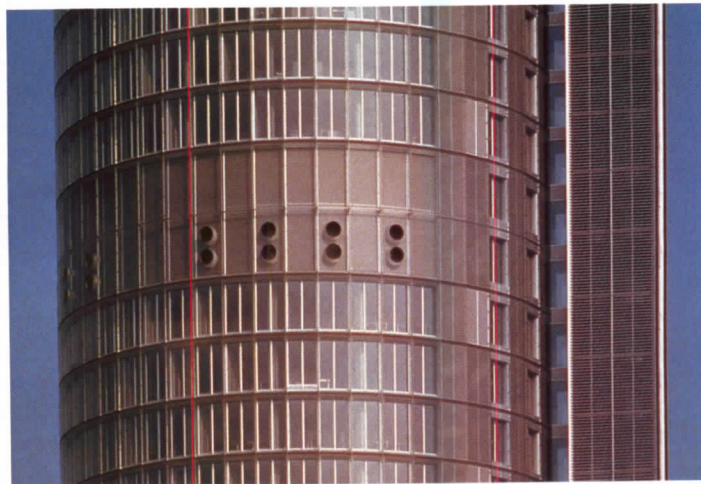
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**The RWE Tower in Essen, Germany**  
 Ingenhoven Overdeik Kahlen & Partners and Buro Happold designed a circular tower with a double-skin facade. The external skin draws air in and exhausts it out through horizontal

bands of openings that alternate at each floor. The “belt” (right) is a double-height mechanical equipment room. The portholes are air intakes and exhausts. The facade ventilation is independent of these systems.



and coordinated with mechanical systems for energy management.

McLaughlin points out that natural ventilation is most successful when the entire building has an integrated design for energy management, most notably in the building details that reduce the overall heat gain in a building. At RWE, for example, the cavity blinds act as a shading device to prevent solar gain; the air circulation in the cavity removes the warm air that the blinds absorb before it can reradiate to the interior. Increasing the opportunities for introducing natural ventilation into nonresidential high-rise construction will continue to face design complications, but the challenges are well worth it for the sharp rise in human comfort and the potential for significant energy savings.

**Endless growing season**

The newly created Nolen Greenhouses for Living Collections at the New York Botanical Garden in the Bronx arguably provide the most sophisticated facility for growing plants in the U.S. Designed by New York-based Mitchell/Giurgola Architects (with Joseph R. Loring & Associates, Severud Associates, and Langan Engineering and Environmental Services), the greenhouses represent a complex synthesis of high and low technologies, in order for hundreds of thousands of plants to thrive and propagate under an acre of glass.

“The greatest challenge was to retain and enhance the unique natural site conditions of this area of the Botanical Garden—rock outcroppings, beautiful specimen trees, and lawns, while satisfying the strict solar orientation requirement of the greenhouses, and providing convenient and logical visitor and service access,” explains Mitchell/Giurgola partner James R. Braddock, AIA. “Also, by establishing an appropriate architectural expression for the headhouse [administration and visitors center], orchestrating its massing, and creating a counterpoint between the glass volumes of the greenhouses and the solid volumes of the headhouse, our goal was to make the entire complex more than just an efficient solution to a series of technical problems.”

The design team began the project with a low-tech strategy determining the best siting for the most sunlight. This was accomplished with a strict north-south orientation. The footprints for eight 36-foot-long growing zones, occupying 36,000 square feet, were then sited so that their long axis is exactly oriented to solar north in order to capture maximum incident sunlight.

The greenhouse units are modular, steel-framed trussed structures with glass roofs and side and end walls. The Nolan Greenhouses use the “greenhouse effect” (capturing and retaining incident solar radiation to good purpose. The glazing— $\frac{1}{4}$ -inch tempered glass in most areas—

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captures the sun's heat in the winter and stores it in massive concrete floors and knee walls. Whereas solar radiation alone is not sufficient to maintain the proper growing conditions, this glass allows enormous heat gain and maximum light with almost no filtering. While this seems counterintuitive when compared to projects involving the comfort of humans, it certainly qualifies as a sustainable maneuver, because it is both energy efficient and meets the requirements of a particular demand, in this case, plants.

The greenhouses feature operable roofs, a technology pioneered by greenhouse manufacturer Van Wingerden. "When it is necessary to

## THE GREENHOUSES USE THE "GREENHOUSE EFFECT" (CAPTURING AND RETAINING INCIDENT SOLAR RADIATION) FOR THE GOOD.

release all that captured solar heat in order to maximize ventilation, each roof section can be opened by electric rack-and-pinion motors operated through the environmental control system," says Braddock, unveiling the complexity of the HVAC's high-tech functions. When temperature sensors in a zone indicate that cooling is required (based on criteria programmed into the environmental control system by the greenhouse operators), the roof of that zone is automatically opened. Each zone consists of three ridges with two roof vents per ridge. Each pair of roof vents is operated in tandem by a single motor.

The ability to open the entire glass roof of each unit when the

weather is appropriate facilitates "hardening off" (the process by which plants grown in the idealized conditions of a greenhouse are gradually introduced to the variable conditions of the outdoors, in order to make them strong, hardy, and ready to be planted outside) without having to move them outdoors. Furthermore, the fact that they open means that heat removal does not require energy-depleting air-conditioning. When the roofs open perpendicular to the ground, they create a striking architectural profile.

Overheating is prevented by motor-driven curtains and evaporative cooling. Water is pumped over porous pads that hang along the north end of each zone. Outside air is drawn over the cooled pads and then exhausted out the south end by fans. Some zones are further cooled by mist that is automatically injected into the space and circulated by fans. Both methods are much less energy consuming than traditional air-conditioning.

During winter months and at night during spring and fall, energy-efficient hot-water radiant heating is provided for each of the growing zones. Water heated in boilers in the mechanical room is circulated by pipes embedded in the concrete floors, on the side walls, and under the glass roofs. According to the manufacturers, this consumes less energy than traditional forced hot air or radiators.

The Nolen Greenhouses provide a textbook case study about HVAC challenges in extreme conditions. And yet, there are lessons for human occupancy of buildings. As all the projects here show, heating, cooling, and ventilating do not require the highly mechanized, energy-devouring machinery that we take for granted. ■



### AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION

#### INSTRUCTIONS

- ◆ Read the article "Commercial Buildings Open Their Windows" using the learning objectives provided.
- ◆ Complete the questions below, then fill in your answers (page 222).
- ◆ Fill out and submit the AIA/CES education reporting form (page 222) or download the form at [www.archrecord.com](http://www.archrecord.com) to receive one AIA learning unit.

#### QUESTIONS

1. Which is not a reason for incorporating natural ventilation in office buildings?
  - a. people find it more comfortable
  - b. productivity increases
  - c. natural pollutants are added to the air in the building
  - d. energy costs for the building go down
2. What percentage of a building's operating costs are normally due to energy consumption?
  - a. 5 percent
  - b. 10 percent
  - c. 15 percent
  - d. 20 percent
3. In the RWE office building, the HVAC system cools air by which method?
  - a. forced air
  - b. chilled air
  - c. fresh air
  - d. fans
4. The RWE office building has sensors to detect all occurrences except which?
  - a. an open window
  - b. internal wind speed
  - c. heat gain
  - d. exterior wind speed
5. Energy cost savings in the RWE building are estimated to be which?
  - a. 10–15 percent
  - b. 20–25 percent
  - c. 30–35 percent
  - d. 40–45 percent
6. To optimize daylight and natural ventilation, the RWE office building has interior spaces no more than how many feet deep?
  - a. 50 feet
  - b. 42 feet
  - c. 23 feet
  - d. 14 feet
7. Which climate is most conducive to using natural ventilation?
  - a. nonhumid, temperate
  - b. humid, tropical
  - c. nonhumid, arctic
  - d. nonhumid, tropical
8. The CYTS building uses which for its ventilation system?
  - a. forced air
  - b. ceiling fans
  - c. outside air
  - d. all of the above
9. In the CYTS building, when occupants open panels for fresh air, the system does which?
  - a. continues to operate
  - b. shuts down
  - c. goes into passive mode
  - d. goes into exhaust mode
10. The Nolen Greenhouses store the sun's winter heat in which?
  - a. panels filled with water
  - b. massive concrete floors
  - c. thick glass roofs
  - d. porous pads on the north of each zone

# No longer just pretty pictures, digital models are becoming workhorses

**SLOWLY, FIRMS ARE STARTING TO COMBINE DIGITAL BUILDING MODELS WITH WIDER-SCALE GEOSPATIAL DATA AND OTHER INFORMATION AS THEY DESIGN, ANALYZE, BUILD, AND MAINTAIN THEIR PROJECTS**

by Ted Smalley Bowen

**A**lthough global positioning systems (GPS), geographic information systems (GIS), 3D modeling, and graphics technologies are standard tools in many design firms, architecture is still executed through a somewhat disjointed progression of 2D and 3D representations of buildings. While this is problem enough for single building projects, the resulting jumble of spatial and graphical information makes it especially hard to grasp the details of larger-scale work that involves campuses, city blocks, and urban development schemes.

But sophisticated design and graphics packages have opened up formal possibilities, while GPS, GIS systems, photogrammetry (measuring objects from photos), and laser range finders have brought greater accuracy to the measurement and representation of buildings, objects, and spaces in 3D. These tools are helping firms get a better grasp on what designs are possible, how they will fit into their neighborhoods, and how to build them. As long-time proponents of building information modeling (BIM) have long pointed out, the potential benefits of designing with a “master” 3D model (or 4D if the element of time is added) span all aspects of design and construction, from project management to maintenance to cost containment and community review. And while no single company provides a “Swiss

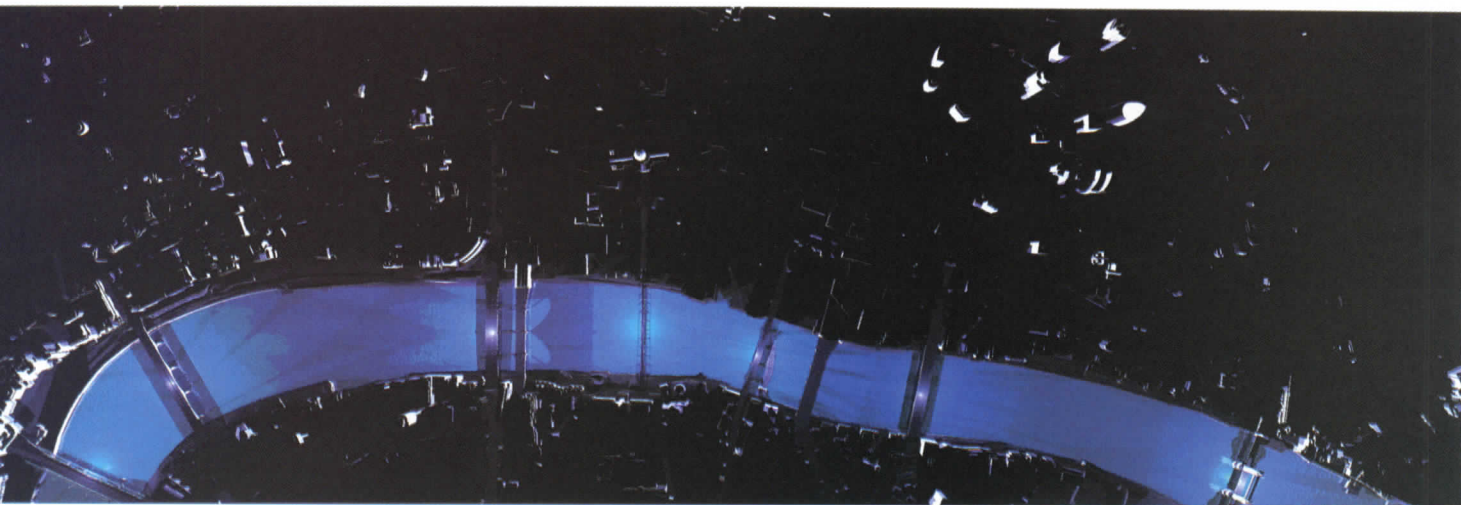
army knife” tool for 3D design, modeling and project-management applications are becoming more interoperable, and architects are learning how to meld these tools into everyday practice. As a number of firms are finding, such models can improve design, communications, budgeting, and construction.

## Using 3D to stand tall in London

In designing Bishopsgate Tower, which will be London’s tallest building at 1,008 feet high, Kohn Pedersen Fox (KPF) has had to be keenly sensitive to the building site’s surroundings. The city has traditionally guarded the view corridors around St. Paul’s Cathedral, Parliament, and other landmarks, but recent planning decisions have made way for high-rises that some contend will block key sight lines. Because of these concerns, the tower’s design has been thoroughly analyzed and reviewed to determine its visual impact and to otherwise check its compliance with relevant codes and standards. The project was commissioned by the German developer and fund manager DIFA.

On this project and others, KPF has made extensive use of 3D visualization and modeling software along with geospatial data, according to Lars Hesselgren, KPF’s London-based research director. To aid in conducting site studies, KPF worked with a 3D city model of London generated from a traditional map, photogrammetry, laser-point clouds derived from a scanning of site features, and radio triangulation

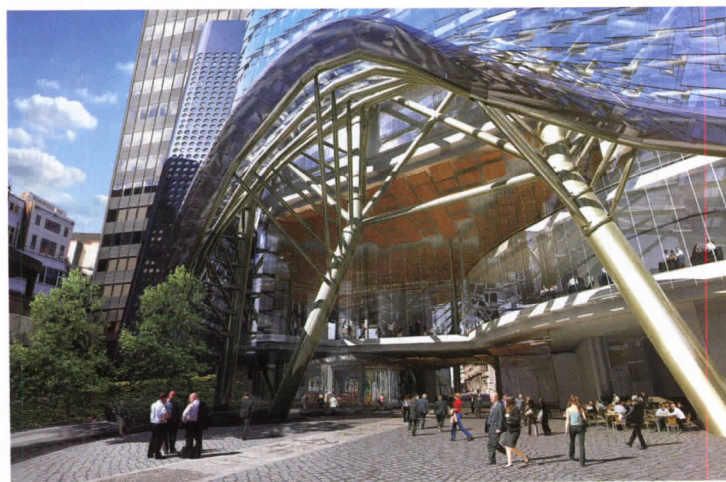
*Ted Smalley Bowen is a Boston-based freelancer who writes frequently for RECORD about technology. Contact him at ted\_bowen@hotmail.com.*



Geospatial data and 3D CAD are helping KPF design London’s tallest building. The firm created this image to study the building’s impact on the neighborhood.



KPF created 3D models of Bishopsgate Tower in London for study and design purposes: A view of the tower (above center) from the Tate Modern Gallery across the Thames River; the entry (below) from the adjacent Crosby Square.



data (which is similar to GPS, but uses radio signals instead of satellite transmissions to gather and transmit information).

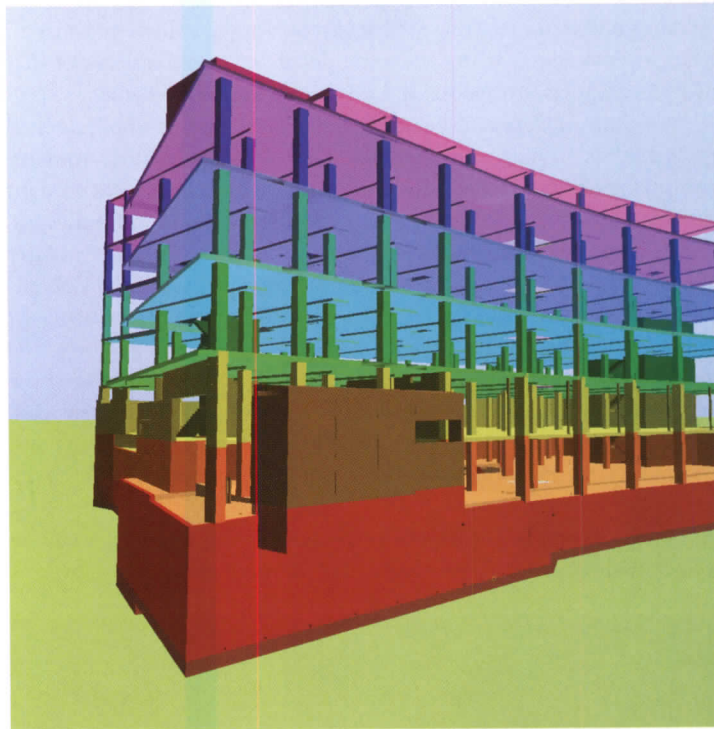
Although the data collection involves many pieces of software and equipment, the process is far from automated. “The problem is how to convert spatial data into comprehensible models,” he says. “You always need an operator to interpret the data into usable geometry.” KPF uses its 3D models in the production of photographic montages, animations, and fly-throughs, according to Hesselgren. Linked to a parametric model containing more robust design data instead of just geometric information, the 3D model aids real-time design, he adds. Such models are also used to establish a building’s visibility, by placing a light source on a given structure and shining it onto an eye-level ground plane, he said.

In five to ten years, it should be possible for a person wearing specially equipped virtual-reality glasses to view a landscape or cityscape with an overlay of geospatially correct CAD information for projects, according to Hesselgren. “That direct input will bypass a huge amount of

the other technology we’ve been talking about,” he says. Like many firms KPF is aiming to use 3D models for centralized management of building information. “As it is, there’s a huge amount of double handling,” Hesselgren says. “Everyone uses different CAD packages, and communication depends on everyone using the same software.” Since 1995, the International Alliance for Interoperability (IAI) has been working to establish standards for interfaces between software programs to combat this problem. Its members have hashed out Industry Foundation Classes (IFCs) for sharing digital design data and other project information among applications, and vendors like Graphisoft, Autodesk, and Bentley Systems have added support for the IFCs to some of their software. Like any effort to create standards, the gains have been slow in coming, but there’s evidence that their work is making inroads, with the General Services Administration (GSA) soliciting information on the use of IFCs earlier this year, and countries like Norway and Malaysia adopting methods for sharing digital design information based on IFCs.

#### A research center comes together in virtual and actual space

In working with Frank Gehry on the Walt Disney Concert Hall in Los Angeles and Daniel Libeskind on the expansion of the Denver Art Museum, Seattle-based design and construction firm M.A. Mortenson Company makes extensive use of 3D and 4D design and visualization



programs, including Revit, formZ, ArchiCAD, and others. The firm is now handling the design, construction, and maintenance of the University of Washington’s new research and technology building in Seattle. The project provides an opportunity to take advantage of modeling and visualization applications, according to design coordinator Dace Campbell. “Contractually, our partners are vested in making this work,” he says. “Everyone’s building a 3D model—the mechanical subcontractors, electrical and construction workers, the architect, civil and structural engineers, all in their own flavor of CAD. We’re the non-nominal data consolidator.”

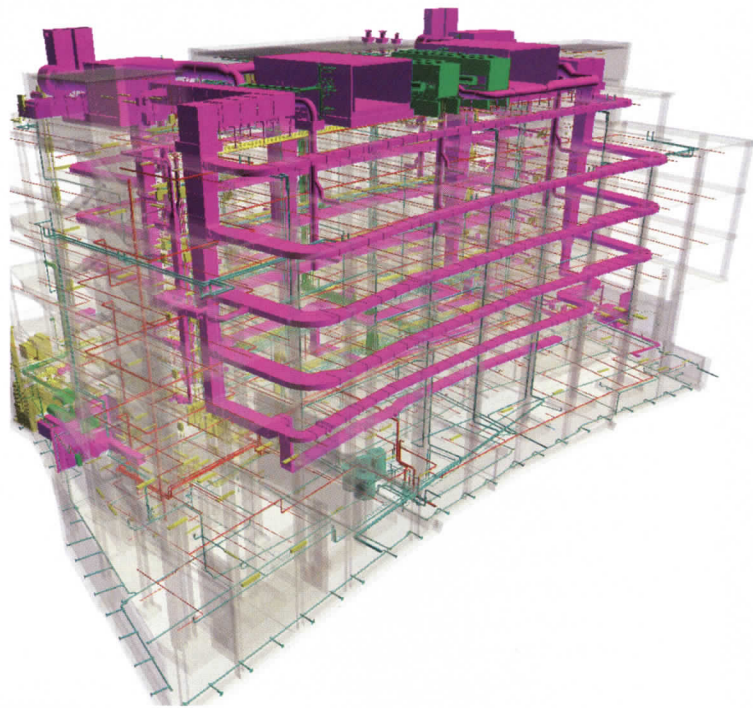
Mortenson is using the 3D model and Primavera scheduling software to coordinate the project. “We’re doing visualization over time—kind of a poor man’s animation,” he says. Campbell himself is the huma

hub for the project, but subcontractors, tradespeople, and clients are using the tools on their own. Working in 3D allows the trades to coordinate their tasks, improve logistics, and increase the use of prefabricated or modular components.

At the job site, Mortenson is issuing stereoscopic goggles to the builders for viewing models. “We’ve got iron workers looking at details with 3D glasses on. Everything’s dimensionally accurate,” he says. Using GIS data from the university’s survey grid, surveyors are able to translate the model to the building site. “It’s automatically being built just as it’s designed, which greatly reduces error,” he says.

The 3D models also improve m/e/p coordination, making it easier to detect conflicts and therefore save money on costly fixes. So far, the project team has detected about 1,500 conflicts, ranging from those as minor as pipes being aligned too closely to as large as entire m/e/p systems in conflict around stairs, says Campbell.

The firm has a 10-year goal to save 30 percent in labor costs, a major portion of which is expected to come from better design coordination. “The idea is to avoid redoing work,” he says. “Most injuries are related to rework, when things are hurried and less planned.” The technology is also forcing a shift in job skills, requiring people to be able to adapt to new ways of collecting, viewing, and using data. “Whether you can work in 3D or not will be a divider in the industry [in the future],” says Campbell.



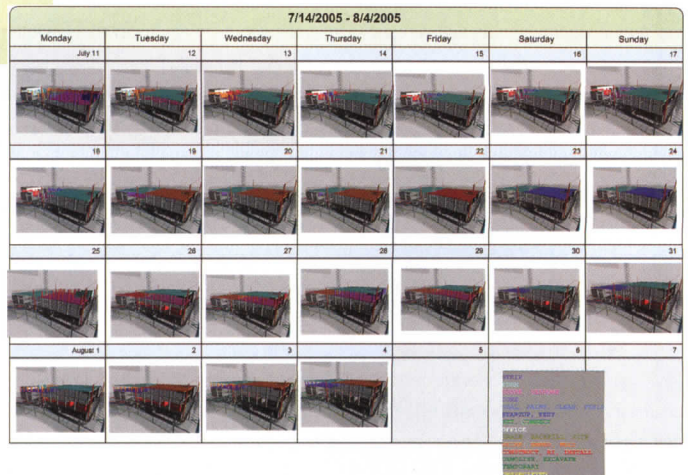
For a research and technology center at the University of Washington, M.A. Mortenson is bringing together a 3D building model (opposite, right) with scheduling data to create a visual timeline for construction

(below). Color-coding the ductwork and other m/e/p systems (above and left) helps designers take note of possible conflicts with other building elements and correct them before mistakes are made in the field.

### Making models work—for both design and practice

City models created in 3D software are also becoming routine components of major design competitions. In preparing their entry for the GSA’s Thurgood Marshall U.S. Courthouse renovation in New York, the Boston firm Goody Clancy was given digital 3D models of several parts of the city, says David de Sola, AIA, an architect at the firm. (The contract for the project ultimately went to Beyer Blinder Belle.) Like KPF, Goody Clancy is also looking to 3D modeling for building information management and cost estimating. “When we model in 3D, we can get volumes and amounts of materials, and we can start on a cost model,” he says. “And when we present it to people to show them what we’ll get, it makes sense to them.”

The firm is looking at WinEstimator, Revit, and e-SPEC as off-



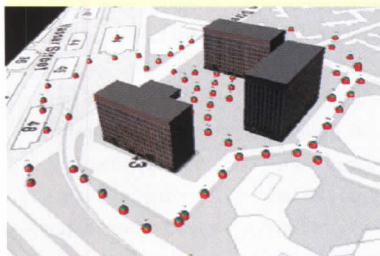
## Researchers delve into 3D modeling studies

Academic powerhouses are turning out some of the leading-edge research in 3D modeling, including large-scale image capture, spatial orientation, visualization, and methods of populating building models with relevant, up-to-date information.

At MIT, researchers are mapping and navigating 3D environments at scales from building interiors to city blocks (below). A key element of their work involves building topological models using geospatial coordinates. Position-aware sensors can be installed in a space for environmental monitoring, security, or other purposes, and users can add extra data associated with specific locations in a model, such as contractor instructions or results of occupant surveys.

Researchers are capturing most exterior images with GPS instruments, traditional surveying equipment, as well as “dead reckoning” (heading and speed) data. Interiors (and exteriors beyond the reach of GPS) are mapped using MIT’s Cricket Indoor Location System, a radio frequency and ultrasound positioning system accurate to within a couple of inches. “You can get the appearance of a small number of city blocks by collecting data manually and using laser, still images, and video. But the geometry is in appearance only,” says Seth Teller, associate professor of computer science and engineering and lead investigator of MIT’s City Scanning Project. Existing data has to be merged with the mere geometric information of the model, Teller says.

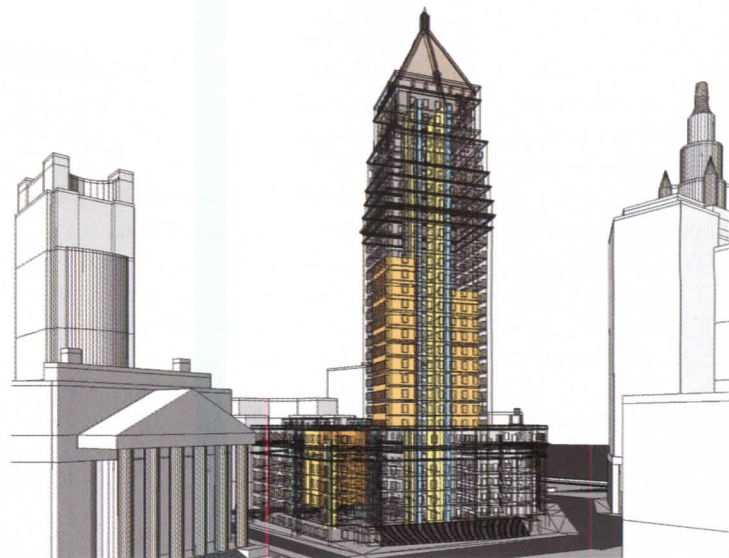
Rapid image capture merged with geospatial data is finding a variety of applications in design. Architects and planners have been using the data to conduct solar studies, energy modeling, tax assessment, and emergency services planning. “It’s not only about modeling spaces, but also enriching those models with critical information,” he says.



The maps and associated data, stored in a database, are available remotely and on-site through GIS-style maps. A variety of applications that run on handheld devices, for tasks like building inspection, maintenance, and project management, will allow real-time access to data in the field, according to Teller. Users (or robots, eventually) can modify information while on-site. “You can start making useful annotations even without an object model, and that model can come into being as part of the natural process of adding annotation.” Add a projector to the handheld, point it at a wall, and you can “see” hidden structures by displaying details from the model on their corresponding physical locations; or mark construction materials with radio frequency tags, and “you could have an as-built on the fly, as a side benefit,” he says.

It’s becoming easier to generate photorealistic GPS-oriented 3D models of city blocks, too. Such mapping is finding its way to the Web through the likes of Google and Amazon, which are beginning to link search results with images of places. Stanford University’s Google-sponsored research involves generating panoramic street-level views from video and laser measurements. The University of California, Berkeley is also working on 3D city modeling, using aerial and ground-level laser scans and photographs.

While the speed and accuracy of data-collection tools continue to improve, the challenge is to anchor the swirl of spatial and image data in coherent, consistent frameworks, so that architects, planners, or even consumers can make use of the results. *T.S.B.*



Goody Clancy’s design for the Thurgood Marshall U.S. Courthouse in New York was set into a 3D map of the city provided to firms entering the competition.

the-shelf components of a building information management system, along with some proprietary software for what de Sola calls “the tendons and ligaments” to help the packages work together. Maintaining a central 3D model for each project is attractive, but also raises the question of who hosts it and how to hash out access among project team members. In the meantime, the designers are making extensive use of a simpler 3D package, SketchUp. “It gets you into realistic 3D representation fast. Anyone can understand the drawings, and almost everyone can use it,” he said.

Many firms are expressing interest in 3D and 4D mapping and modeling for project logistics, according to Paul Seletsky, digital design director for Skidmore, Owings & Merrill in New York and chair of AIA New York City’s technology committee. “You have to be able to look at what’s around a given site, figure out how to stage delivery of materials and equipment, and how that might affect the surroundings,” he says. Although they’re too costly for many firms, immersive displays like those used in the automotive industry will eventually migrate to the AEC community, Seletsky believes.

Over and above the challenge of developing coherent, accurate 3D representations of structures, this work typically falls outside the

## FIRMS ARE USING A WIDE VARIETY OF 3D MODELING PACKAGES IN LIEU OF SETTLING ON A SINGLE PACKAGE.

scope and budget of most projects. “You can’t ask for extra work from designers without giving them more time and money to do it,” says Seth Teller, associate professor of computer science and engineering at MIT whose office is in Frank Gehry’s Stata Center and who compiled time-lapse sequences of the building’s construction (see images online at [monitor.csail.mit.edu/index\\_flash.html](http://monitor.csail.mit.edu/index_flash.html)).

Equally important is not losing sight of design fundamentals “You need to have people who understand the information they’re given,” Seletsky says. “When you look at the scan of a site, can you understand what the site’s about? You need to know things like the location of utilities, underground transport, and nuances in soil conditions. It’s not just about graphic skills.” Painters may paint what they see, but future architects have a lot more on their plates: They will not only design, but they will also model, analyze, annotate, build, and maintain their creations. ■





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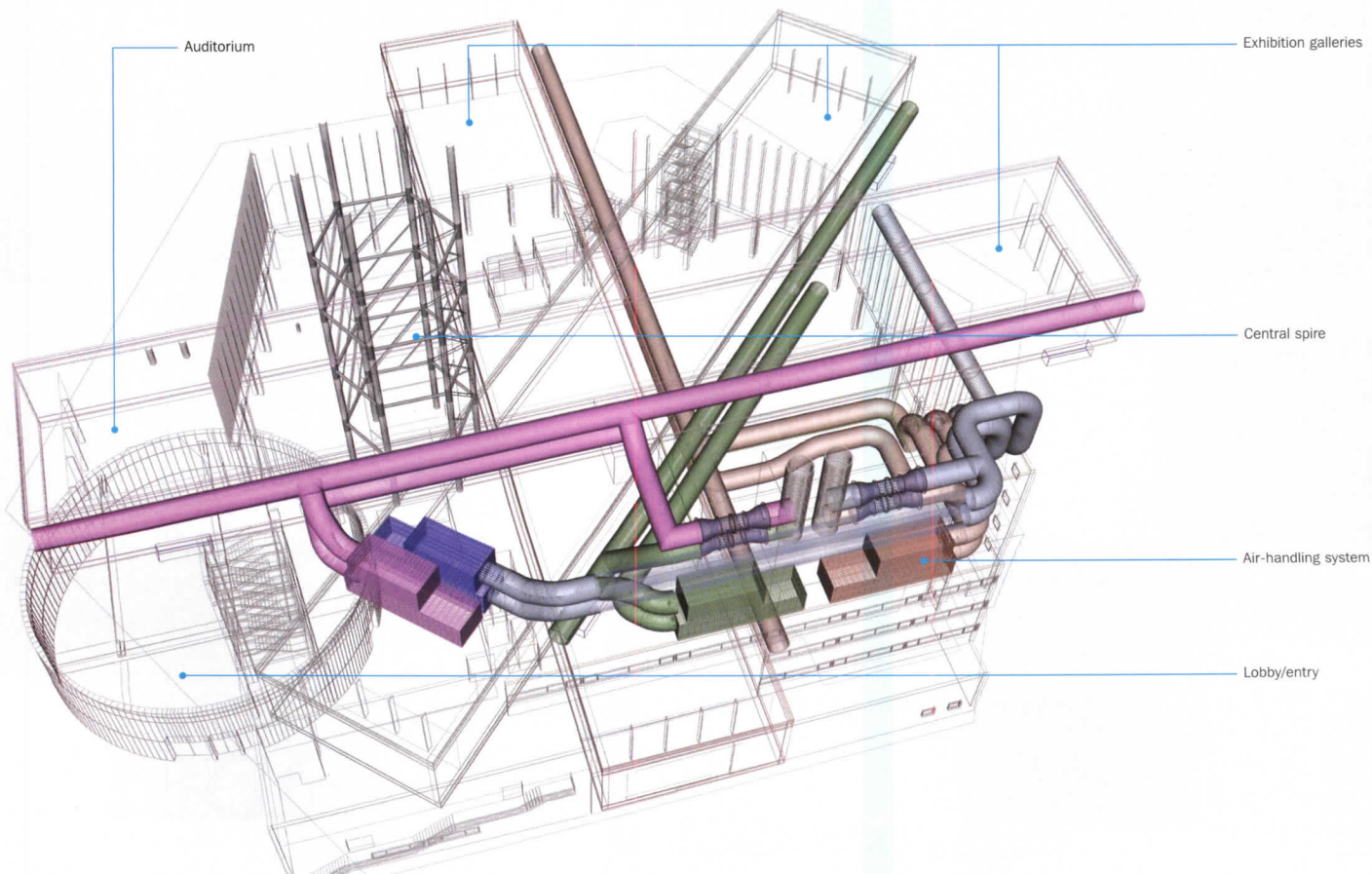
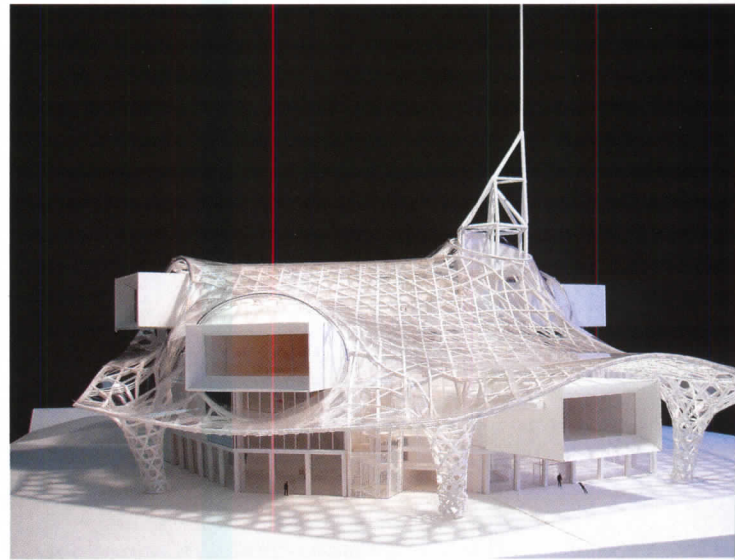
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# Zoom In

## In France, another Pompidou Center takes shape

By Deborah Snoonian, P.E.

The brashly exposed systems of Rogers and Piano's original Pompidou Center in Paris captured the attention of critics when it opened in 1977, but it's the draped sculptural roof of the center's planned outpost some 200 miles east of the City of Lights that's getting the wows this time around. Inspired by the shape and texture of a woven Chinese hat he found in Paris, architect **Shigeru Ban**, working with **Jean de Gastines** and engineers at **Arup**, envisioned a free-form roof made from modular hexagonal cells of timber, measuring about 3 feet long on each side. The resulting mesh structure will be capable of spanning distances up to 130 feet, enabling the roof to be supported by just a few columns near the building's perimeter. The design team is still finessing how exactly to build it. **"It's an exercise somewhere between form-finding and form-making,"** says **Ban**. Planners hope the new Pompidou Center, slated to open in 2008, will draw tourists to Metz, which is near the borders of Germany, Luxembourg, and Belgium. ■



the curvaceous roof of the new Pompidou Center (this page, bottom, and model shot, opposite, top) will be constructed of a mesh of laminated timber

and topped with a heat-reflecting, white fiberglass waterproof coating. Three long, rectangular exhibition galleries stacked on top of each other

terminate in glazed ends that provide panoramic views of a new high-speed train station, the nearby Seille Park, and the skyline of the growing Metz region.

Spire to rise 253 feet tall in honor of the 1977 opening of the original Pompidou Center in Paris

Exhibition galleries are column-free and self-supporting, like bridges

Roof structure will be composed of a mesh of modular hexagonal elements that can span more than 130 feet

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# Tech Briefs

The design community responds to NIST's recommended changes based on the agency's study of the WTC collapse • New framing and fasteners help a mural in Chicago come together

BYTES

ASHRAE recently kicked off a study that will assess the link, if any, between thermal comfort and energy efficiency. The goal is to determine whether drifting indoor temperatures that sometimes result from energy-saving strategies have an effect on health and productivity. The project will last 18 months and cost just over \$100,000.

Constructware, a maker of online project communication and collaboration software, recently developed a communication specification that spells out roles and responsibilities for project teams as they exchange design documents and data. The specification can be used as the basis of a contractual agreement involving communication. Three of the company's clients have adopted it so far.

A thermal power station called the Solar Tower will be built in 2006 by the Melbourne-based EnviroMission limited on a former sheep farm in the Australian outback. It will consist of a 5,000-acre transparent circular solar heat collector at the base, topped by a 280-foot hollow tower equipped with 2 wind turbines. Planners estimate it will produce enough electricity to power 200,000 homes every year.

Throughout August and September, government scientists will release colorless, nontoxic gases in New York City's subways, an office building, and select streets to determine how fast and far a chemical attack would propagate. The study is being conducted by the Urban Dispersion Project, a program of the Pacific Northwest National Laboratory.

A group called Waste Concern in Dhaka, Bangladesh, will convert the capital city's garbage into organic fertilizer and will harvest the methane it produces to generate electricity.



NIST research staff (left) inventory the steel recovered from the collapsed World Trade Center buildings (digital model below).

## WTC investigators' recommendations set agenda for change, but provide few answers

The final draft report on the investigation into the fires and collapse of the World Trade Center (WTC) towers after the terrorist attacks of 9/11 is chock full of recommendations—30 in all—meant to address improvements to standards, codes, and practices, evacuation response procedures, and research needed to prevent failures of high-rise buildings in catastrophic events. But the recommendations have left some in the design community befuddled, including the AIA, with many saying the report's findings are either too broad in scope or misguided because they are based on the result of a unique disaster.

Mandated by an act of Congress, the investigation by the National Institute of Standards and Technology (NIST) National Construct Safety Team took nearly three years and \$16 million to complete. The final draft was released on June 23; public comment on the recommendations closed on August 6. "We believe these recommendations are realistic and achievable within a reasonable period of time and should greatly improve the way people design, construct, maintain, and use buildings, especially high-rises," said

the report's lead investigator, Shyam Sunder, at its release in New York.

"The irony is that none of the recommendations are specific or quantitative in nature," says Ron Klemencic, president of Seattle-based structural engineering firm Magnusson Klemencic Associates.

Klemencic, who is chairman of the Chicago-based Council on Tall Buildings and Urban Habitat (CTBUH), says the investigators essentially "created a laundry list" of topics. "But for the money spent, one would hope the recommendations would have been more substantive."

According to Carl Galioto, FAIA, a partner at Skidmore, Owings & Merrill in New York and architect of record for 7 World Trade Center and the Freedom Tower, "The report is not so much a conclusion, but a direction."

The recommendations are divided into the following eight groups: increased structural

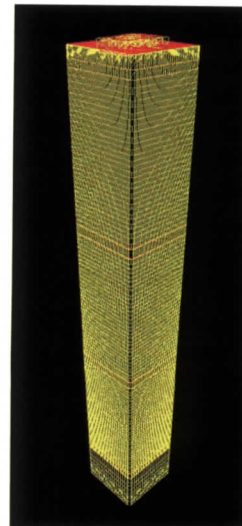
integrity, enhanced fire resistance of structures, new methods for fire-resistance design of structures, active fire protection, along with improved building evacuation, as well as improved emergency response, improved procedures and practices, and education and training.

Many of the recommendations "are simply common sense in terms of fire and life safety," while others are already common practices, says Raymond Clark, AIA, managing principal in the Chicago office of Perkins + Will. A case in point is recommendation No. 11, which advocates evaluating of the performance and suitability of advanced structural steel, reinforced and prestressed concrete, and other high-performance materials for use under conditions expected in fires. That's already being done, says Clark, who

is chairman of the Chicago Committee on High-Rise Buildings, an organization affiliated with CTBUH that is focused on the design, construction, operation, and maintenance of high-rise buildings in the Windy City.

The general nature of many of the recommendations is "due to the fact that they are taking this catastrophic event and trying to come

up with specific recommendations," says Clark. "Although the recommendations seem sensible in the context of the tragic result, there's no correlation to other buildings." He disagrees with recommendation No. 1, for instance, which calls for



## Tech Briefs

nationwide adoption of standards and codes to prevent progressive collapse. While sensible in theory, he says, changing the codes would not have prevented the collapse of the twin towers or the Alfred P. Murrah Federal Building in Oklahoma City, which collapsed in April 1995 when Timothy McVeigh bombed the U.S. Government complex. Klemencic agrees that preventing progressive collapse is a "nice statement," but "we need to define what the hazards are going to be, and what type of building response to those hazards we're willing to accept. Until we can do that, it's difficult to do any rational engineering, and [attempts to change standards] become an otherwise emotional response."

The AIA responded to several points in NIST's report, saying the agency's concerns about redundancy in fire protection are valid only in rare cases, and that specific fixes like making stairwells wider and hardening elevator shafts can actually backfire depending on the type of emergency that a building faces.

Clark takes issue with recommendation No. 17, which calls for



**NIST conducted fire tests to assess the accuracy of computer models of the tower collapses.**

the design of skyscrapers to accommodate full-building evacuation of occupants if needed. "I don't know how you can make that recommendation as policy without exercising reasonable judgment and taking into consideration the specific building," he says. The recommendation contradicts the fundamental philosophies of building evacuation that have been in place and proven to save lives for decades. Standard practice is that of "hold in place," says Clark, meaning that the floor on which the emergency is located and those around it are evacuated, while other floors are not because the building's systems are designed adequately to protect occupants.

The design team for 7 World Trade Center and the Freedom Tower anticipated some of the recommended code changes in the report, as well as in New York's recently enacted Local Law 26, which included changes to Big Apple codes relating to tall buildings, says Galimoto. The team has incorporated many of the measures NIST noted

into these projects. In the Freedom Tower, for instance, the designers are using the "structural frame" approach to fire-resistance rating, where columns and the girders that brace them have the same fire rating. The tower also will use a cementitious, medium-density spray-on fireproofing material that has more than five times the cohesion and adhesion as code requires, which meets NIST's recommendation for development of fire-resistant coating materials and technologies. Both 7 World Trade Center and the Freedom Tower will also use redundant sprinkler systems, and the Freedom Tower will contain an emergency access core comprising a group of service elevators with equipment that is protected against water damage, which open onto a service vestibule that is fire rated and pressurized to mitigate against smoke intrusion.

For more on NIST's draft report and recommendations, go to <http://wtc.nist.gov>. *Larry Flynn*

*(continued on page 182)*

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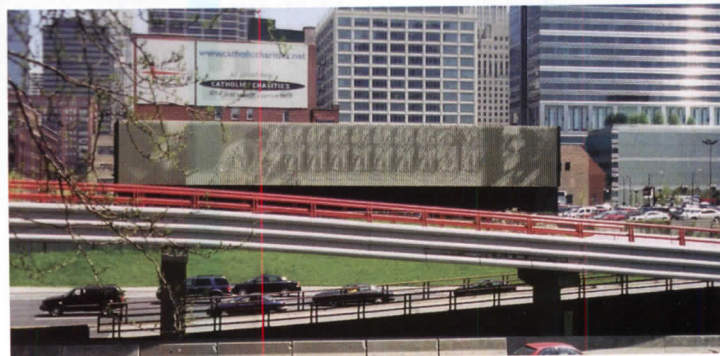
## Tech Briefs

### Unique assembly makes a new mural possible

The latest stop on one of Chicago's architectural tours isn't a building, but rather a 3D mural commissioned by the Catholic Charities of Chicago and attached to the group's headquarters. The Chicago-based fabricator Farrodyne USA built *The Mandatum* (Latin for *mandate*), which came together with a number of new assembly and construction techniques.



The "shadow mural" depicting a Biblical scene and Catholic leaders, measuring 153 feet long and 33 feet high, consists of hundreds of slender, vertical strips of aluminum that cast a shadow on the wall behind them. The 21-foot-long strips, each watercut and unique in shape, are attached to aluminum panels using a "bedframe" technique, so called because hooked tabs on each strip slide into place like bed rails on the panels. The strips are secured to the panels with camlock fasteners that Farrodyne designed for the project, and the panels attached to the building's structural steel. This assembly allows the mural to accommodate thermal expansion and permits each strip to be removed individually



when repairs are needed. The effort won Farrodyne a 2005 Construction Technology Award from the Construction Specifications Institute (CSI). *Deborah Snoonian, P.E.*

*The Mandatum depicts a Biblical scene and portraits of Catholic leaders (top and above). Its metal strips (above left) are attached to a frame with special fasteners.*


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By Deborah Snoonian, P.E.

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www.adobe.com  
Windows and Mac

Adobe is making a play for this popular format to become the de facto information exchange standard for the AEC industry. Their upgrade to Acrobat Professional lets users save several common AEC file types as single PDFs that can be shared, reviewed, marked up, updated, and ultimately archived. Firms like Perkins Eastman have been using it on tablet PCs to mark up and manage drawings in the field; other

For more information on technology for architects, including reviews, vendor lists, and links, go to Digital Architect at [www.archrecord.com](http://www.archrecord.com).

testimonials posted on Adobe's Web site by its AEC customers note enough productivity gains and savings to make a case for at least testing a PDF-based workflow.

### Solar Trees

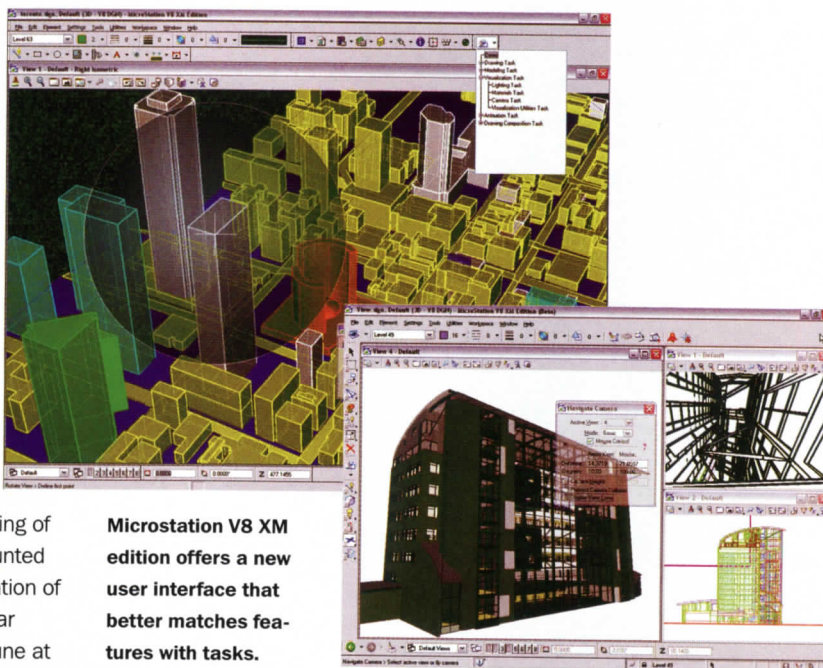
Kyocera  
www.kyocera.com

Your car won't take a pounding by the sun if you park under one of these "trees," a new photovoltaic (PV) system consisting of modules of solar panels mounted on supports. The first installation of the system, dubbed the "Solar Grove," was dedicated last June at Kyocera's North American headquarters in San Diego. The grove produces 421,000 kilowatt hours of electricity per year, the equivalent of the demand of 68 homes in the San Diego area. Local architecture firm Tucker Sadler designed the grove, which will pay for itself in about 12 years with rebates and tax credits (not a great payback period, but with energy prices on the rise, some clients may be convinced).

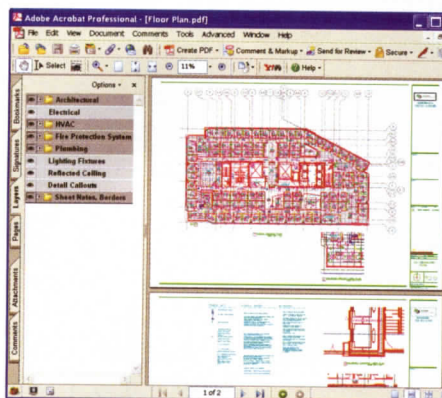
### Excelize Detail Manager

Excelize  
www.excelize.com  
Windows only

Ever want to reuse a CAD detail or object from a previous project, only to discover you can't find it among the detritus on your hard drive or server? This new database program aims to bring those files to your fingertips quickly and easily. It allows you to



**Microstation V8 XM edition offers a new user interface that better matches features with tasks.**



**Acrobat Professional 7.0 lets designers save all types of project files to compact, user-friendly PDFs.**

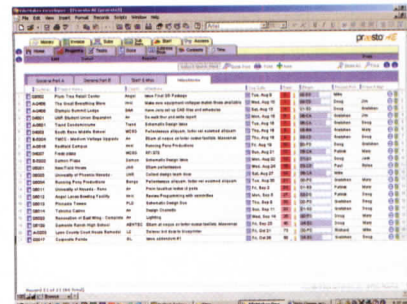
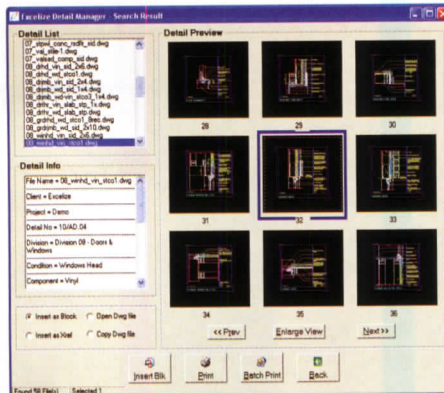


**For surface parking lots, a systemized solar panel structure by Kyocera generates power and keeps cars cooler.**



## Tech Products

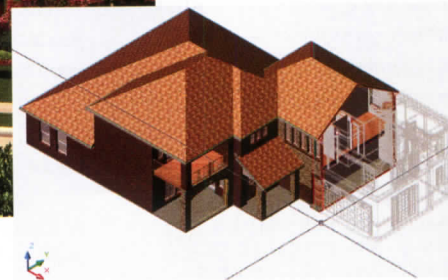
Frequently used details, drawings, and components are organized easily in Detail Manager.



Project management, job tracking, and task histories can be captured in Praesto, a database program tailored for AEC firms.



VisionREZ features built-in house styles and object libraries of building features commonly used by residential architects.



consolidate CAD files within a single interface, and search them by file name, keyword, or other parameters you find helpful.

**Praesto AE**  
Base Builders  
[www.basebuilders.com](http://www.basebuilders.com)  
Windows only

and helps prevent sensitive financial information from falling into the wrong hands.

**VisionREZ 3.0**  
Ameri-CAD  
[www.visionrez.com](http://www.visionrez.com)  
Windows only

Base Builders developed Praesto, a database program, to take the hassle out of mundane tasks faced by AEC firms like job tracking, project management, and proposal development. Information such as hours worked, materials used, and status reports can be entered into Praesto and later used for such tasks as creating time sheets, generating invoices, and establishing project schedules. While it lacks the punch needed to handle payroll or accounting, it allows project managers to prepare and submit invoices for their projects without having to access a firm-wide accounting system—which both saves time

and helps prevent sensitive financial information from falling into the wrong hands. Geared toward residential designers, this 3D CAD package can either be used on its own or as a plug-in to Autodesk's ADT design software. Handy features such as built-in material libraries, objects like roofs and walls, and predefined house styles are tailored to the attributes wanted by many homeowners (i.e., more operable windows, fewer elevators). Files created in VisionREZ can be rendered in Autodesk's VIZ for presentation and study purposes. While using many of the same commands and menu structures as Autodesk's applications, VisionREZ's lower price tag compared to many 3D CAD programs may entice even the most tech-averse architects to try it out. ■

# Where do you Rock?

CIRCLE 89 ON READER SERVICE CARD OR GO TO [ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/](http://ARCHRECORD.CONSTRUCTION.COM/PRODUCTS/)



[www.eldoradostone.com/walkthrough](http://www.eldoradostone.com/walkthrough)

# Products Walls & Ceilings

Our diverse roundup of the latest **wall and ceiling** products includes acoustical ceilings, a moisture-absorbing wall-cavity material, unusual wall coverings made of **bark, mother-of-pearl, and glass beads**, and a practical modular wall system that is easy to install and maintain. *Rita Catinella Orrell*

## Modular wall panel system allows for easy maintenance

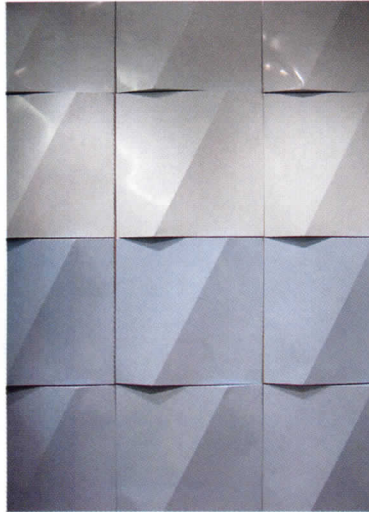
The Graph Interior Surface System, developed by Fry Reglet, serves as a platform for mounting modular wall panels in a range of surfaces and styles. Awarded a Silver Award for Best of NeoCon last June, the system uses a pre-engineered aluminum grid that can be anchored to new or existing concrete, drywall, block, or plaster, and faced with a variety of factory-fabricated surface panels. Standard Graph panels are offered in wood, metal, glass, and translucent resin, as well as 3D metal panels.

The system's panel connection design allows for each panel to be individually accessible, making it simple to replace panels should they become worn, damaged, or outmoded. Point accessible panels also

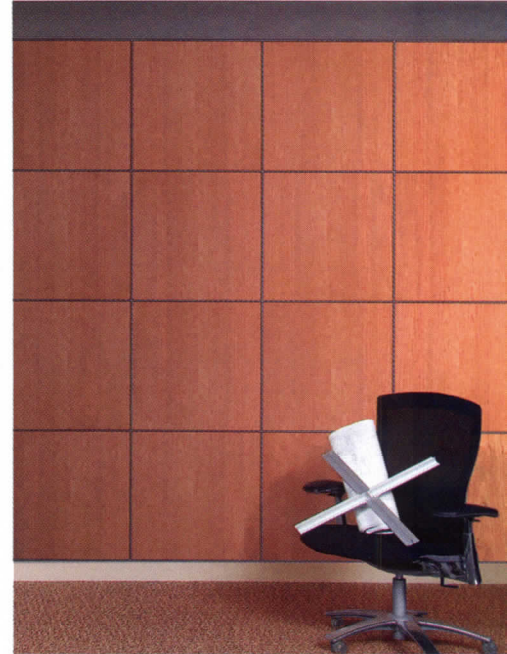
make it easy for the future addition or maintenance of electrical, data, or communication components located behind the wall covering.

Compared to custom millwork, the Graph system costs less and provides more freedom to choose a variety of materials in a range of textures and treatments. The platform grid and finished panels arrive at the job site ready to install, with minimal field fabrication.

In addition to Graph, Fry Reglet also produces architectural metal products for the roofing and interiors industries. Fry Reglet, Alpharetta, Ga. [www.fryreglet.com](http://www.fryreglet.com) **CIRCLE 200**



**3D metal panels (above) or wood panels (right) can be hung from a pre-engineered grid (on chair at right).**



## Acoustical accent canopies for open spaces

Armstrong Ceilings has introduced SoundScapes acoustical accent canopies for open spaces. The sound-absorbing properties in the new canopies help reduce reverberation time in the space below them, making them ideal for open plenum areas as well as over spaces such as workstations and reception desks. The smooth-surfaced, curved canopies feature the Ultima

**Soundscape can be suspended as a "hill" (left) or "valley."**

DuraBrite membrane or scrim. The scrim provides a high light-reflectance value of .90, meaning it reflects 90 percent of the light that strikes it. The Durabrite surface also enhances the durability and scratch resistance

of the canopies. The new high-recycled-content canopies are also seismically approved. Measuring 47" x 76", the canopies can be installed as "hills" or "valleys." The canopies are suspended from the building's structure, with no special tools or techniques required. Armstrong World Industries, Lancaster, Pa. [www.armstrong.com/ceilings](http://www.armstrong.com/ceilings)

**CIRCLE 201**

## Silica gel absorbs moisture in wall cavities

In a new application for an old material, Autumn River is using silica gel—the material commonly found in shoe boxes labeled "Do Not Eat"—to remove moisture from within building cavities, thereby eliminating the conditions required for mold growth.

The Desiccant Strip is a 6½"



**The strips are covered with vapor retarder.**

length of spun polyethylene material formed into pouches containing engineered silica gel. The strip has been designed to guarantee that upon installation, moisture levels within a building cavity are rapidly brought below the point where mold and other decay agents can function. Once the strip has absorbed moisture, it will not release the moisture back into the wall cavity until the relative humidity within the cavity has been reduced dramatically and stays down.

Independent testing has proved that the strip impacts the R-Value of wall cavities in a positive way. The product is commonly installed by the insulation contractor prior to applying the vapor retarder. Autumn River, Coon Rapids, Minn.

[www.autumnriver.biz](http://www.autumnriver.biz) **CIRCLE 202**

## Products Walls & Ceilings

### ▼ Handmade bark surfacing

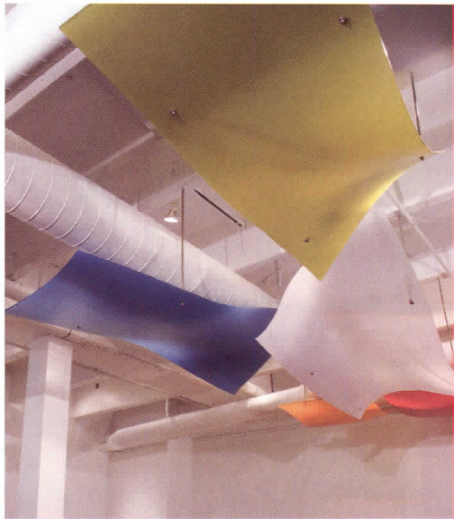
Although Caba Company has been around for more than 30 years, this was the first time it exhibited at NeoCon or ICFF. Barkskin is an organic, hand-pounded bark material available in seven colors. It can be fireproofed and applied to walls, ceilings, and furniture to give a surface the appearance of parchment, marble, or stone. Sheet sizes come in 16" x 24", 24" x 32", and 48" x 96". Caba Company, Santa Fe, N.M. [www.barkskin.com](http://www.barkskin.com)



CIRCLE 203

### ► Floating ceiling sensation

Designed to incorporate complex geometries using advanced digital design tools, 3form Shapes includes six 3D, compound-formed curved shapes combined with 3forms' patent-pending variable-angle hardware. 3form suggests the 3/8"-thick curvilinear forms suspend from either concrete substrate, wood studs, wood blocking, or steel structural beams for horizontal surfaces, and concrete, wood, or metal for vertical applications. 3form Architectural, a new division of 3form, will assist architects with the design, engineering, and fabrication of complex projects. 3form Systems, Salt Lake City. [www.3-form.com/systems](http://www.3-form.com/systems) CIRCLE 204



### ◀ Improved climate

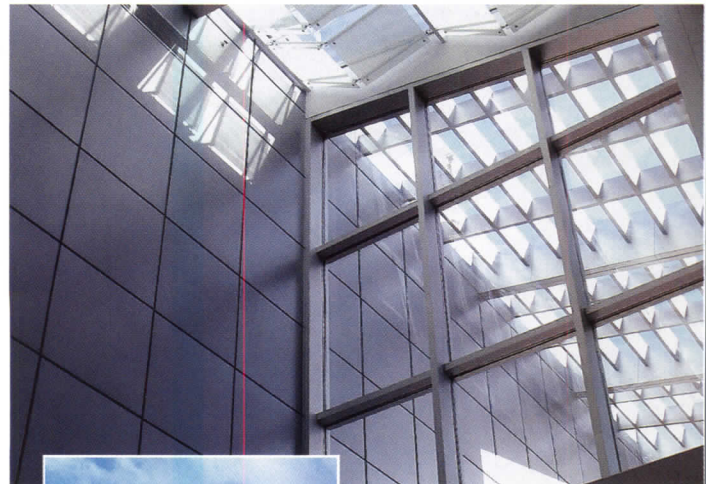
True Climaplus ceiling panels offer the precision of metal panels in a concealed suspension system with a fine-textured overlay that provides sound control. Made of perforated aluminum, the panels are covered with a fine-textured, smooth acoustical facing that fits into slotted suspension tees for minimal reveal. The panel facing also supplies a light-reflectance value of .90, which reduces eyestrain, the number of light fixtures needed, and energy consumption. USG, Chicago. [www.usg.com](http://www.usg.com)

CIRCLE 206



### ▲ Shimmering surfaces

Luxe wall coverings are nothing new for Maya Romanoff, but the company has outdone itself with its latest offerings. Originally launched in 1993, the success of the Beadazzled line of glass-bead-clad wall coverings has led to five new versions of the original. Beadazzled Baubles (above right) is a high-impact design available in 14"-square tiles that glimmer with beads twice the size of the standard. Also new from Romanoff is mother-of-pearl surfacing (above left), sold exclusively as 24" x 12" tiles for wall covering, furniture, columns, and retail displays. Maya Romanoff, Chicago. [www.mayaromanoff.com](http://www.mayaromanoff.com) CIRCLE 205



### ◀ Enforcing panel design

The new Denver District 2 Police Station utilizes 21,000 square feet of Dri-Design aluminum wall panels to symbolize the high-tech future of police work. The building includes a two-story and a one-story brick element separated by a two-story Dri-Design-clad atrium space. The dry-joint, pressure-equalized rain-screen system was also extensively used throughout the interior of the atrium. Dri-Design, Holland, Mich. [www.dri-design.com](http://www.dri-design.com) CIRCLE 207

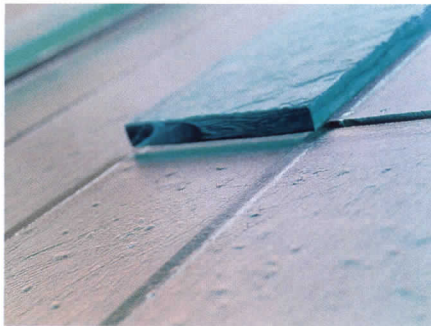
# Product Briefs

## ► Building blocks

For the Bricks, Boards, and Sticks Collection of hand-crafted, 3D kiln-cast glass textures, Joel Berman developed a new mold system featuring textured components inspired by historic building techniques and materials.

Available in panels up to 52" x 108", with 1/8", 3/16", and 1/4" thick-

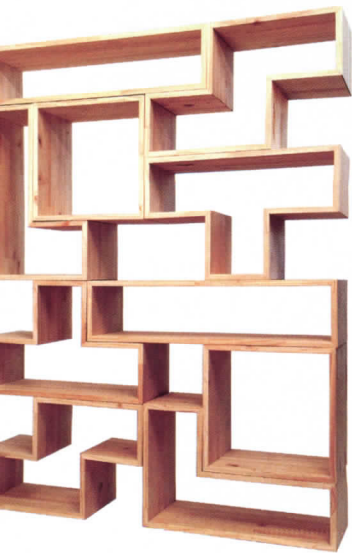
nesses, the collection is suited for both interior and exterior applications. The Bricks texture (above) is cast from a mold with interchangeable parts that create a layered effect with a range of very-fine-to-course-grained sedimentary rock textures. Joel Berman Glass Studios, Vancouver. [www.jbermanglass.com](http://www.jbermanglass.com) **CIRCLE 208**



## Black and white and bold all over

Interface's latest collections of modular carpet tiles use bold patterns and bright colors to put the *mod* in modular. Aimed for market segments including retail, corporate, and hospitality, the award-winning B&W Collection from Interface includes 3D patterns in black and white that can be used alone, in combination with each other, or with solids. Born Free (above) features a playful zebra-style print, while other B&W designs feature botanical, Greek key, and houndstooth patterns.

Interface Flooring Systems, LaGrange, Ga. [www.interfaceinc.com](http://www.interfaceinc.com) **CIRCLE 210**

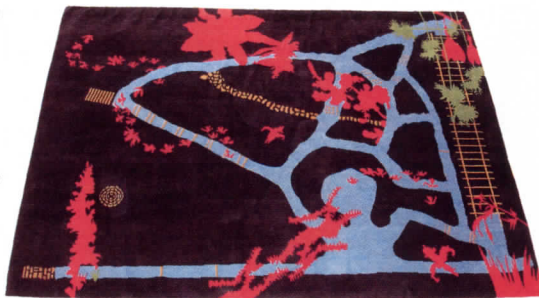


## ◄► New York's new design capital?

BKLYN Designs launched in the DUMBO section of Brooklyn, New York, in the spring of 2003 to promote the borough's growing design community. At this year's three-day event held last May, the

next wave of contemporary lighting, furniture, linens, rugs, and decorative accessories for home, office, and garden were presented. Products on display included the Tetris Shelving system from custom furniture manufacturer Brave Space (left), the Wlld Garden Collection of custom hand-knotted Tibetan rugs from designer Amy Helfand (above), and the Silica Series of lamps from Niche Modern (Pod pendant, right). Brave Space, Brooklyn, N.Y. [www.bravespacedesign.com](http://www.bravespacedesign.com) **CIRCLE 211** Amy Helfand, Brooklyn, N.Y. [www.amyhelfand.com](http://www.amyhelfand.com)

**CIRCLE 212** Niche Modern, Brooklyn, N.Y. [www.nichemodern.com](http://www.nichemodern.com) **CIRCLE 213**



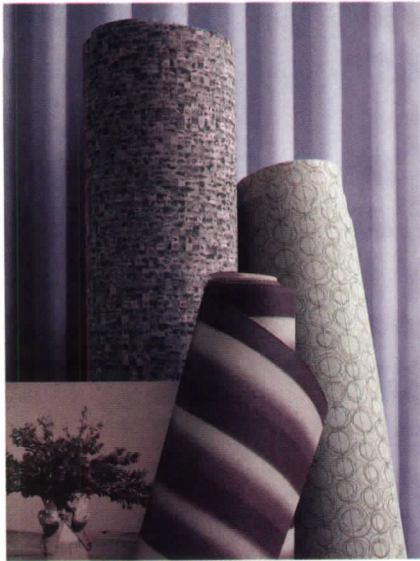
## ▼► Fireplace from Down Under

The EcoSmart Fire is a fuelless fireplace from Australia that requires no installation or utility connection for fuel, thereby making it ideal for apartment or city living. Units can be freestanding, wall fitted, or inserted into a closed-off fireplace. The burner, which heats on

average more than 115 square feet, can also be inserted into joinery to create a streamlined benchtop feature. Fueled by a renewable resource (denatured alcohol), the UL-approved EcoSmart Fire burns clean and is virtually maintenance-free. A Designer range of freestanding models (above and below) can be delivered ready to operate, while the Renovator range can be fitted by a builder into any combustible or noncombustible wall or closed fireplace. Innovations M<sup>2</sup>, Phoenix. [www.ecosmartfire.com](http://www.ecosmartfire.com) **CIRCLE 209**



## Product Briefs



### ◀ Ready, set, go

System One, designed by Grant Design Collaborative, is the initial product offering from Set Wall Covering Systems, a new commercial wall-covering brand. Each Set product draws from a palette of 35 colors called the Grant Color System. Products in the line range from 54" rollgoods and erasable wall surfaces to curated murals by internationally renowned photographer Geof Kern. A pattern called Curtain Call (at left, in foreground and on the wall) mimics the look of wool velvet curtains. Set Wallcovering Systems, Atlanta. [www.setwalls.com](http://www.setwalls.com) **CIRCLE 214**



### ▲ Flexible frontage

Dorma Glas has introduced its HSW-ISO double-glazed, horizontal-sliding wall system, a thermally insulated sliding

glass frontage. The system features integral thermal-break profiles and extendable top and bottom seals. It can be adapted to a wide range of requirements, including straight, angled, or curved configurations. Floor guides are not required, allowing the use of one flooring material without

breaks, and virtually any color combination is possible for the fitting surface. Dorma Group N.A., Upper Marlboro, Md. [www.dorma.com/usa](http://www.dorma.com/usa) **CIRCLE 215**

### ► Healthier wayfinding

The Vista Healthcare signage line was designed for the health-care and medical sectors and comprises a variety of wayfinding solutions, including directories; suspended signs; triangular, post, and double-sided pylons; table stands; wall frames; and projecting wall brackets. The line combines the functionality of Vista's Modular Curved Frame technology into a collection of profiles that keep inserted materials firmly in place with a strong tension grip. Vista System, Sarasota, Fla. [www.vista-healthcare.com](http://www.vista-healthcare.com) **CIRCLE 216**



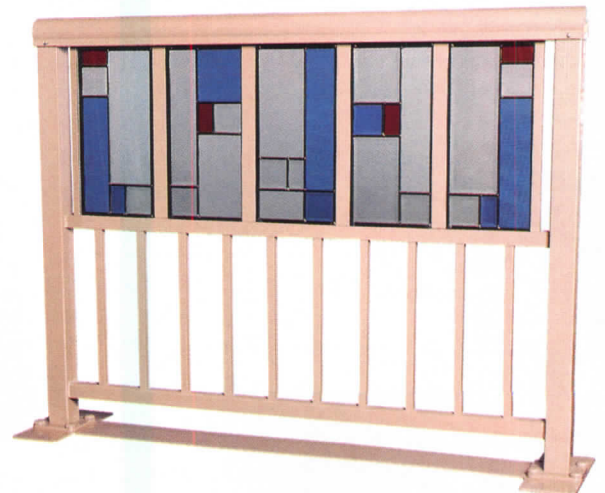
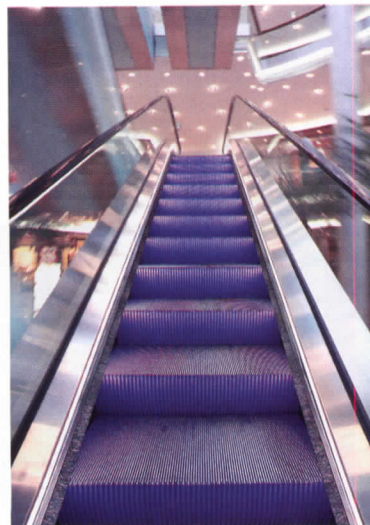
### ► Spanish stonework

Arriaga, a Spanish quarrier and manufacturer of fine stone architectural elements, tiles, and slabs, is offering its custom stone fabrication work for the first time in the U.S. on a large scale. Arriaga's handcrafted products include columns, balusters, fountains, vanities, statuary, and fireplaces. The company recently completed the fabrication of custom items, including capitals, columns, and friezes, for two large private residences on Long Island, New York. Arriaga, New York City. [www.arriaga-marmoles.com](http://www.arriaga-marmoles.com) **CIRCLE 217**



### ► Advancing to a new level

Schindler's new 9300 Advanced Edition escalator is an extension of its best-selling 9300 line. The new version integrates a wide selection of color options for steps, handrails, skirts, decks, and truss cladding, and offers multiple balustrade design options, two configuration packages, and more than two dozen safety features. Manufactured in Schindler's Clinton, North Carolina, plant, the escalator includes Miconic microprocessor controls and a drive system that offers smooth, reliable operation. Schindler Elevator, Morristown, N.J. [www.us.schindler.com](http://www.us.schindler.com) **CIRCLE 218**



### ▲ Improving on the Master

Inspired by Frank Lloyd Wright's work in stained glass, Portland, Oregon-based Esthetic Accents has developed a more affordable and durable version for today's market. Using architectural stained glass with zinc beveling rather than less durable lead, the glass can be quickly and affordably tempered and electroplated in large quantities, for a range of applications including doors, railings, skylights, and more. Esthetic Accents, Portland, Ore. [www.estheticaccents.com](http://www.estheticaccents.com) **CIRCLE 219**



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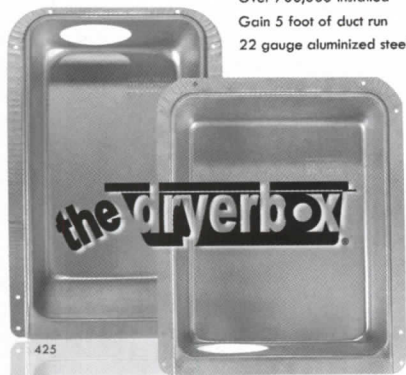


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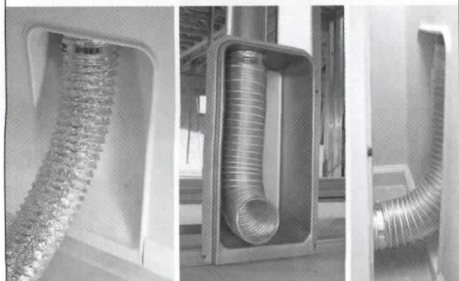
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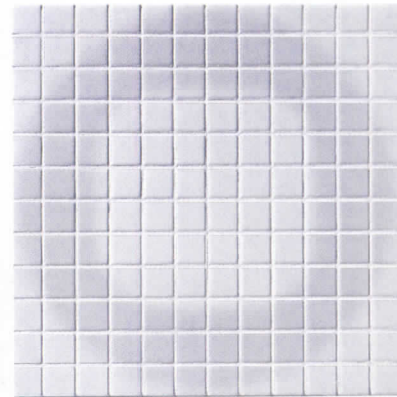


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## Product Briefs Coverings Show Review

The **Coverings Tile & Stone Expo**, held in Orlando last May, showcased finishes with true-to-life faux and **cutting-edge contemporary styling**, greater format and material options, and superior performance. *Linda C. Lentz*

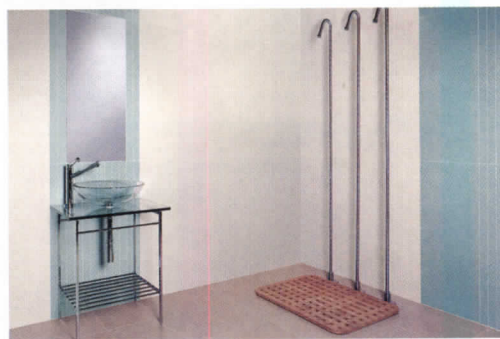


### ▲ International style

German manufacturer Steuler Fliesen's Traces (above left), created by Alessi designers Kristina Lassus of Finland and Christoph Radl of Austria for its Alessi Tile by Steuler brand, is an assortment of glazed porcelain 6"-square wall, 6" x 2" border, and 13"-square floor tile notable for its subtle tone-on-tone abstract patterning and sophisticated palette of white, gray, and orange. In the same material, the Steuler Design floor and wall Mosaic Retro series (above right) was inspired by 1970 motifs and features 1"-square tiles on a 12" format in solid gray or orange, or imprinted with unique geometric shadings. Steuler Fliesen, Mühlacker, Germany. [www.steuler-fliesen.de](http://www.steuler-fliesen.de) **CIRCLE 220**

### ▶ A practical variation on an exotic theme

Zebrano from The Wood Collection by Cerim Ceramiche combines the technical properties of porcelain with the natural beauty of Africa's equatorial zebrawood—a wood prized for its undulating textural stripes and amber tones. Ideal for residential and commercial interior and exterior floors and walls, this .4"-thick tile is frost-, wear-, and chemical-resistant, shockproof, colorfast, and has a water-absorption rate of less than .1 percent. Available in 12.7" x 25.4", 6.3" x 25.4", and 4.2" x 25.4" sizes with rectified edges, smooth surfaces, and trim, Zebrano is offered in five colors: Bianco, Crema, Perla, Beige, and Torba (right). Italian Trade Commission, New York City. [www.italytile.com](http://www.italytile.com) **CIRCLE 221**



### ◀ The skinny on a new ceramic

Offering optimum vertical customization options for numerous interior installations, Cotto D'Este's groundbreaking Kerlite Zirconium-based ceramic surfacing material measures a slim .12" thick and comes in three easily cut sheetlike formats: 11.8" x 3.9", 1.6" x 3.9", and .2" x 3.9". Water-, chemical-, and abrasion-resistant, the flexible and durable material is available in a color palette of six urbane neutrals: Sand, Lake, Snow, Steel, Smoke, and Night. Italian Trade Commission, New York City. **CIRCLE 222**

For more information, circle item numbers on Reader Service Card or go to [www.archrecord.com](http://www.archrecord.com), under Products, then Reader Service.





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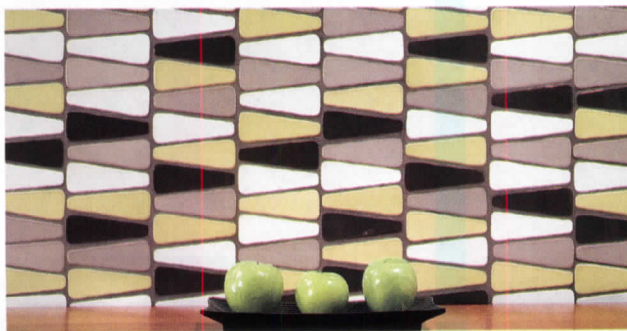
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## Product Briefs Coverings Show Review

### ► New age Americana

Maine-based rug and textile designer Angela Adams has interpreted her unique aesthetic to suit ceramic tile in a recent collaboration with Ann Sacks. Characterized by an organic geometric quality, the collection comprises floor and wall tile derived from Adams's body of work. The Corice (below), a 4" or 6" leaf-inspired tile, and Manfred, 4"-square wall relief patterns (right), are two of five hand-drawn designs available in high-gloss or matte finishes in a selection of 20 exclusive Angela Adams shades and an Ann Sacks palette of more than 200 colors. Ann Sacks, Portland, Ore. [www.annsacks.com](http://www.annsacks.com) **CIRCLE 223**



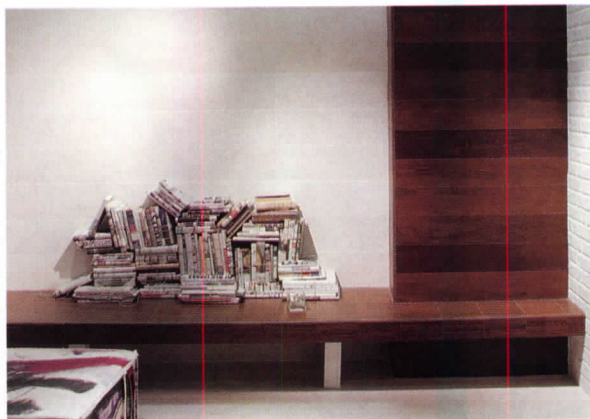
### ► Transparent building blocks

Structurally stable and elegantly transparent, Sicsbrick from Sisis eases the fabrication of interior elements such as partition glass tile walls and showers. Available in three shapes and sizes, the "bricks" are made of a patented clear-plastic material from Sturm und Plastic covered on one or two sides in  $\frac{1}{8}$ " iridescent glass mosaic from the Sisis Glimmer Collection using silicon adhesive. To facilitate the installation process, they connect together with a methacrylate ring to create self-supporting structures. Italian Trade Commission, New York City. [www.italytile.com](http://www.italytile.com) **CIRCLE 224**



### ▼ Parkland-inspired wood-look tile

Part of the Materia e Colore group of porcelain tile by Rex Ceramiche Artistiche, Abisko was inspired by the spectacular landscapes of the Swedish national park that is its namesake. Rectified and squared for superior performance and installation, Abisko is available in five realistic wood hues—Ebony (Ebano), Mahogany (Mogano), Birch (Betulla), Oak (Rovere), and Iroko—in a wide variety of sizes: 4" x 18", 4" x 24", 5" x 36", 6" x 24", 8" x 36", and 24"-square. Decorative mosaics on a 12"-square format, 18" x 36" stylized Arte barklike motif, and 12"-square Lamellare laminated striplike tile are also available, as are a selection of trim pieces. Italian Trade Commission, New York City. [www.italytile.com](http://www.italytile.com) **CIRCLE 225**



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## Product Briefs Coverings Show Review

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### ▼ Faux travertine gets a reality check

Durable and lifelike, Travertino Romano is a collection of porcelain color-through tile for walls and floors by Ceramiche Cotto Emiliano (CO-EM S.p.A.). Available in a subtle vein-cut pattern with an unpolished or patina finish or slightly textured cross-cut version with an antique finish ideal for random arrangements, this group



is notable for its faithful representation of the real thing. Available in a selection of three colors—walnut, beige, or white—and a range of sizes, including 3" x 12", 6" x 12", 12" x 18", 12" x 24", and 6"-, 12"-, and 18"-square. Mosaics in .6" and 3" sizes come in 12" sheets. Optional metal or ceramic decorative trim, as well as bullnose edging, and stair treads, complete the extensive offering. Italian Trade Commission, New York City. [www.italytile.com](http://www.italytile.com) **CIRCLE 226**

### ► Playful shapes for floor and wall

Whether installed in a textural monochromatic arrangement or in any number of hip Pop Art patterns, Candy from the Forma series of matte-glazed porcelain tile by Garogres is one tile with myriad guises. Indeed, this versatile 10" x 13" cookie-cutter shape fits into itself like a puzzle piece and has virtually limitless configuration possibilities, depending on the choice and placement of the colors, which include Miel (honey), Hueso (bone), Acero (steel), Oceano (blue), and Moka (brown). Appropriate for both indoor and outdoor residential and commercial walls and floors. Tile of Spain Center, Coral Gables, Fla. [www.spaintiles.info](http://www.spaintiles.info) **CIRCLE 227**



### ◀ Form and function indoors and out

The brainchild of Spanish industrial designer Francesc Rife, Efir (Rife spelled backward) by Saloni is a comprehensive collection of contemporary glazed porcelain suitable for use on ventilated facades, floors or walls both indoors and out. Manufactured with a standard thickness of .4" to assure strength and a consistently flat surface, the collection comprises 12" and 23"-square, 12" x 23", and 18" x 36" field tile, as well as a 4" x 23" bullnose, a 2" x 4" x 36" listelli, and stair features. A full range of modular Corian bath accessories provides designers with the ability to integrate elements such as shelving and towel bars into the tile itself. Saloni, Plantation, Fla. [www.saloni.com](http://www.saloni.com)

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## Product Briefs Coverings Show Review

### ► The essence of quartz

Developed to meet the stringent demands of such installations as commercial flooring, interior and exterior claddings, kitchen and vanity counters, stair treads, risers, and thresholds, Innovative Stone's new Indore quartz-based surfacing comes two ways. Slab material is available measuring 55" x 120" in either a .75" or 1.25" thickness. Alternatively, ½"-thick tiles come in 12"-, 16"-, 24"-, and 48"-square, 12" x 24", and 24" x 48" sizes. The neutral Earth tone palette includes Vanilla Bean, Black Malabar, Anise Star, and Ginger Crystal. Innovative Stone, Hauppauge, N.Y. [www.innovativestone.com](http://www.innovativestone.com)

CIRCLE 229

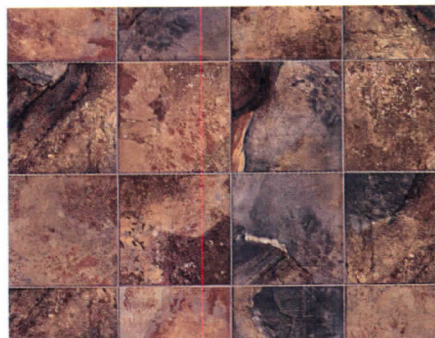
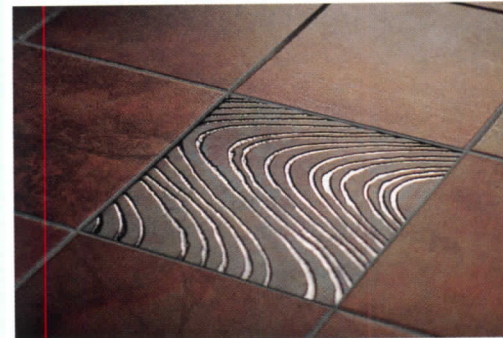


### ◀ Traditional "woodwork" twice fired

Dimensionally constant architectural detailing is the raison d'être behind the classic styling of Ceramiche Grazia's Electa white-body double-fired ceramic panels. Ideally suited for baths and entrances, this 7.9" x 31.5" panel features a central raised relief and a full complement of borders and trim. The range is available in green, beige, and white, with a glossy crackle glaze; and beige, white, apricot, ginger, and Muscat, in a soft matte finish. Italian Trade Commission, New York City. [www.italytile.com](http://www.italytile.com) CIRCLE 230

### ► Shades of stone

Echoing the variegated colors of natural slate, Fioranese Ceramica's Canyon porcelain interior floor and wall tile is reliably consistent, easy to install, and low-maintenance. Available in hues of Marron (brown), Arancio (orange), Ramato Verde (copper green), and Beige, Canyon comes in 24"-, 12"-, and 6"-square sizes, plus an assortment of trim. On a whimsical note, the series includes decorative inserts with a silvery "wave" motif (right). Italian Trade Commission, New York City. [www.italytile.com](http://www.italytile.com) CIRCLE 231



### ◀ Trompe l'oeil slate

Imbued with all the visual cues of its natural counterpart, Marazzi Tile's Jade glazed porcelain comes in slatelike tones of Sage, Ochre (left), Chestnut, and Taupe—complete with the effects of distinct clefts, layers, and mineral deposits. The surface, however, is satiny smooth, making it comfortable underfoot. Granted a Class 4 durability rating, the tile is available in 20"- and 13"-square sizes and is suitable for moderate-to-heavy traffic in residential, medium-commercial and light-institutional floor and wall applications. American Marazzi Tile, Sunnyvale, Tex. [www.marazzitile.com](http://www.marazzitile.com) CIRCLE 232

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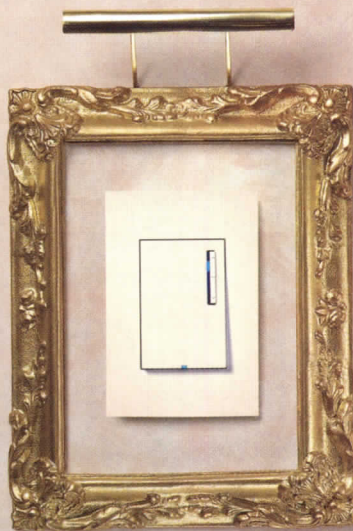
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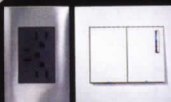
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## Product Resource: Literature



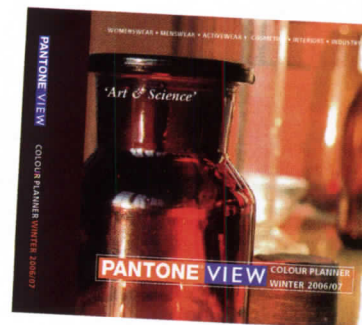
### Visual selection catalog

The first section of *Designing with Light*, Lightolier's 176-page catalog outlines the key areas of lighting composition in a series of photo essays. The body of the catalog details the product line, along with full specification information and guidelines for effective application. Lightolier, Fall River, Mass.  
www.designingwithlight.com

CIRCLE 233

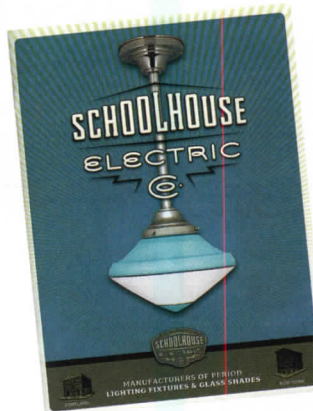
### Color forecasting tool

Pantone has announced the winter 2006–2007 *Pantone View Colour Planner*, its cross-discipline color-trend forecasting tool, subtitled *Art & Science*. Offering nine palettes for use in fashion, cosmetics, interiors, and graphics, it retails for \$750 from Pantone distributors nationwide. Pantone, Carlstadt, N.J. www.pantone.com CIRCLE 234



### Lighting catalog doubles in size

Schoolhouse Electric debuted in Portland, Oregon, in 2003 with an exclusive line of period American lighting fixtures and hand-blown glass shades. The new *Schoolhouse* catalog is twice the size of the original *Essentials* catalog and features the company's signature, high-quality lighting products with more on-location photographs that present the diverse line. Schoolhouse Electric, Portland, Ore.  
www.schoolhouseelectric.com CIRCLE 235



### Fire-resistant-glass literature

A new product brochure and technical data sheet for Pilkington's fire-resistant glass are now available. The new material includes information on both the Pilkington Pyrostop Fire Resistant Glass and Pyrodur Fire Protection Glass products. A copy of the new brochure and data sheet can be downloaded at the Pilkington Web site listed below. Pilkington, Toledo.  
www.pilkington.com/fire CIRCLE 236



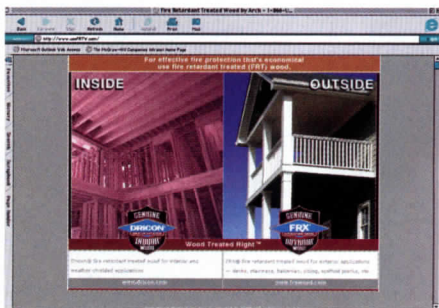
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www.archrecord.com, under Products, then Reader Service



# Product Resource: On the Web

## www.usefrtw.com

Arch Wood Protection's home page helps specifiers find the appropriate type of fire-retardant-treated wood (FRTW) for different needs. The site offers two choices: Dricon FRTW for interior and weather-shielded applications and FRX FRTW for exterior applications.



## www.kristalia.it

The new Web site for the Italian manufacturer Kristalia is available in Italian, English, German, and Spanish. The home page (left) is divided into seven sections: company, designers (sample shown, below left), tables, seats, accessories, lighting, and news. Each product is presented with detailed photographs and technical data sheets on materials and size.



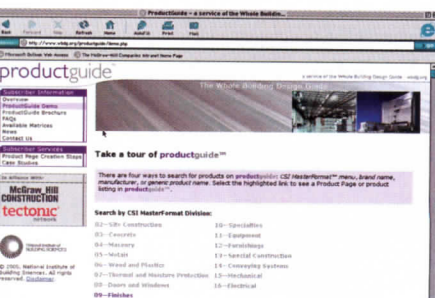
## www.dasding.be

The quirkiness of the Das ding design studio, based in Brussels, is evident on its easy-to-navigate Web site. Products on display include a stool made of a solid oak base and a bike seat that is a nod to the late designer Achille Castiglioni (right).

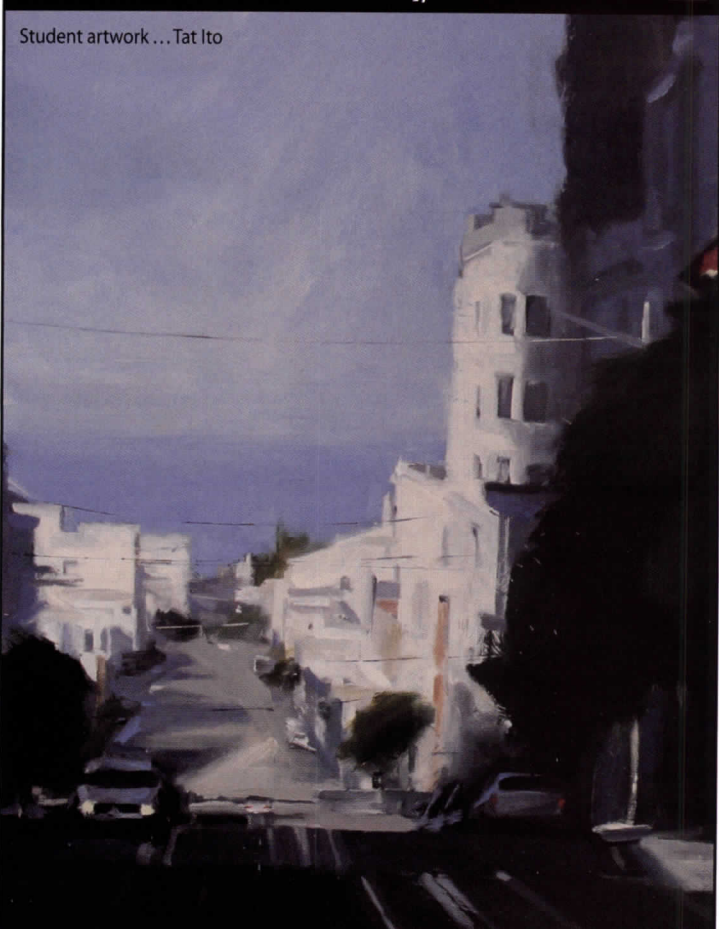


## www.productguide.wbdg.org

The National Institute of Building Sciences, in alliance with McGraw-Hill Construction (publisher of ARCHITECTURAL RECORD) and Tectonic Network, have launched ProductGuide, the first online source of building products that meets DoD, Army, Navy, Air Force, and NASA requirements for building products.



Student artwork ... Tat Ito



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Pratt Institute President's Exhibition Series

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August 11 – September 17, 2005

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Pratt Institute's School of Architecture, in collaboration with *Architectural Record* and McGraw-Hill Construction, has organized *Forever Modern*.

For each of the past fifty years, *Architectural Record* has featured a showcase of innovative designs in its Record Houses issue. This exhibition brings together photographs, drawings, and models of more than 60 houses featured in the magazine's pages. It includes models made by architects as well as those specially constructed for the exhibition by students in the School of Architecture.

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# Dates & Events

## New & Upcoming Exhibitions

### Erkman: Artist-in-Residence

#### Long Island City, N.Y.

September 10–November 27, 2005

Erkman is well known in Europe for her spectacular public projects as well as for subtle architectural interventions. During a week residency, Erkman will create a site-specific work that engages both the interior and exterior of Sculpture Center's nearly 100-year-old steel-and-brick building. At Sculpture Center. Visit [www.sculpture-center.org](http://www.sculpture-center.org).

### Beila C. Johnson Design

#### Center at Parsons: A Celebration

#### New York City

September 14–November 8, 2005

This exhibition will celebrate the dedication of a new campus center at Parsons, designed by Lyn Rice Architects, with drawings, models, and full-size mock-ups of construction details. Call 212/229-8919 or visit [www.parsons.edu](http://www.parsons.edu).

### Raymond Loewy: Designs for Consumer Culture

#### Atlanta

September 15–December 23, 2005

This exhibition showcases the work of Loewy and his associates with a variety of drawings, models, products, advertisements, photographs, archival documents, and rare memorabilia of Loewy over five decades. At the Museum of Design, Atlanta. Call 404/688-2467 or visit [www.museumofdesign.org](http://www.museumofdesign.org).

### Frank Lloyd Wright and

#### Taliesin: The Photographs of

#### Guerrero

#### Chicago

September 16–November 19, 2005

In 1939, when Taliesin set up

its western front in Arizona, to the death of Wright in 1959, Guerrero created some of the greatest architectural photographs of the last century. The open access Wright granted the photographer ensured that the images became a true biography of the legendary architect. At Architech Gallery. For information, call 312/475-1290 or visit [www.architechgallery.com](http://www.architechgallery.com).

### Palladian Architectural

#### Drawing Tour

#### Venice, Italy

September 17–24, 2005

The sixth annual drawing tour of the Institute of Classical Architecture & Classical America is an exploration of the Veneto and Venice with a concentration on the architecture of the great Italian architect Andrea Palladio (1508–80). British watercolorist Alexander Creswell and New York architect Melissa Del Vecchio will lead instruction in sketching, perspective, watercolor, and analytical drawing. Call 800/390-5536 or visit [www.classicalexursions.com](http://www.classicalexursions.com).

### Marion Mahony Griffin:

#### Drawing the Form of Nature

#### Evanston, Ill.

September 23–December 4, 2005

Chicago-born architect Marion Mahony Griffin is known primarily for her magnificent drafting style that incorporated architectural plans into dramatic and stylized landscapes. This is the first exhibition devoted to Mahony Griffin's graphic work. At the Mary and Leigh Block Museum of Art. Call 847/491-4000 or visit [www.blockmuseum.northwestern.edu](http://www.blockmuseum.northwestern.edu).

### International Arts and Crafts

#### Indianapolis

September 2005–January 2006

Organized by the Victoria and Albert Museum in London, the exhibition features more than 300 objects from

Great Britain, where the Arts and Crafts movement began, as well as America, Europe, and Japan—where it developed as the *mingei*, or folk craft, movement. At the Indianapolis Museum of Art. Visit [www.ima-art.org](http://www.ima-art.org) or call 317/923-1331.

### Samuel Mockbee and the

#### Rural Studio: Artist and

#### Architectural Visionary

#### Hartford

September 29–November 6, 2005

An exhibition celebrating Samuel Mockbee, who put into practice one of the nation's boldest contemporary architecture programs, the renowned Rural Studio at Auburn University in Alabama. This inspired designer and charismatic teacher was also a painter, poet, environmentalist, and humanist. His work will be on view at Joseloff Gallery. Visit [www.joseloffgallery.org](http://www.joseloffgallery.org).

### Renewing Wright

#### Pittsburgh

October 1, 2005–January 15, 2006

This exhibition brings together two iconic buildings by Frank Lloyd Wright with, in each case, an associated project by a leading visionary architect of today. At the Heinz Architectural Center, Carnegie Museum of Art. Call 412/622-3131 or visit [www.cmoa.org](http://www.cmoa.org).

### Sacral Space: Modern

#### Finnish Churches

#### Seattle

October 7–November 13, 2005

This exhibition presents 12 Modern Finnish churches, which demonstrate the remarkable quality of Modern Finnish architecture. *Sacral Space* includes drawings, photographs, videos, and three-dimensional drawings. At the Heritage Nordic Museum. For information, call 206/789-5707 or visit [www.nordicmuseum.org](http://www.nordicmuseum.org).

### Solar Decathlon

#### Washington, D.C.

October 7–16, 2005

The Solar Decathlon presents cutting-edge architecture, engineering, and technology, all of which can be applied in building homes to generate their own energy, not simply consume it. The U.S. Department of Energy announced 18 teams that will compete to see who can build and operate the best-designed and most-energy-efficient solar-powered home. The public can tour the homes and take away valuable information about where to find these resources and how to apply them to their existing homes or ones they will build. On the National Mall. For more information, visit [www.solardecathlon.org](http://www.solardecathlon.org).

### Conrad Buff III and Donald

#### Hensman Home Tour

#### Pasadena, Calif.

October 11, 14, and 15, 2005

"A Celebration of the Work of Architects Conrad Buff III and Donald Hensman" is a three-day event featuring a home tour, symposium, and reception. Buff and Hensman helped define the ultra-cool and casual California Modern architecture scene of the 1950s and '60s. The tour will consist of six Buff and Hensman homes in the Pasadena, Altadena, and Linda Vista areas, some of which have been unavailable to the public until now. For information, call 626/793-3334.

### Classical Spain: Art &

#### Architecture of Madrid,

#### Toledo, and Segovia

#### Madrid

October 16–23, 2005

Organized by the Institute of Classical Architecture & Classical America, *walking tours*, *lectures*, and expert guides will emphasize extraordinary architecture and art spanning the Romanesque, Baroque, and Neoclassical periods



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## Dates & Events

in Madrid and surrounding cities. Call 800/390-5536 or visit [www.classicalexursions.com](http://www.classicalexursions.com).

### **Prairie Skyscraper: Frank Lloyd Wright's Price Tower Bartlesville, Okla.**

*October 14, 2005–January 15, 2006*

An exhibition of approximately 108 drawings, models, photographs, documents, building components, and furnishings to mark the building's 50th anniversary. Visitors will be able to tour both the exhibition and the building's historic Frank Lloyd Wright interiors. At the Price Tower Arts Center. Call 918/336-4949 or visit [www.pricetower.org](http://www.pricetower.org).

## Ongoing Exhibitions

### **Jean Prouvé: Three Nomadic Structures West Hollywood**

*August 14, 2005–November 27, 2005*

The first American presentation of the work of celebrated French designer and architect Jean Prouvé (1901–84), this exhibition includes furniture, vintage photography by Lucien Hervé, and architectural elements that address the most important aspects of Prouvé's practice. At the Museum of Contemporary Art Pacific Design Center. Call 213/626-6222 or visit [www.moca.org](http://www.moca.org).

### **Filigree Spaces:**

#### **Textile Installations by Piper Shepard Baltimore**

*Through September 18, 2005*

The two new installations, featuring a dramatic curtain wall in the Baltimore Museum of Art's lobby and a "room within a room" design in the museum's textile gallery, explore the connection between textiles and architecture. At the Baltimore Museum of Art. Call 410/396-7100 or visit [www.artbma.org](http://www.artbma.org).

### **Romantic Modernist: The Life and Work of Norman Jaffe, Architect Southampton, N.Y.**

*Through September 18, 2005*

Norman Jaffe built more than 600 projects during his 35-year career. He received numerable architecture awards and also participated in national and international exhibitions at leading institutions, including the Museum of Modern Art, New York. Eastern Long Island is where Jaffe found his place in American architecture, creat-

ing unique vacation homes while exploring his love of light and form. This is the first major exhibition to examine the life and work of this important American architect. At the Parrish Art Museum. Call 631/283-2118 or visit [www.parrishart.org](http://www.parrishart.org).

### **Restoration: The Dissolution of Ideologies Stockholm**

*Through September 25, 2005*

Restoration doctrines have succeeded one another ever since the start of the 19th century. In recent years, one finds a tendency to fit the approach to the object of restoration rather than following a specific doctrine. If there is an ideology of restoration today, what does it look like? This exhibition presents 10 important restorations completed recently. At the Arkitekturmuseet. Call 46 0 8/587 27000 or visit [www.arkitekturmuseet.se](http://www.arkitekturmuseet.se).

### **a\_show Stage 2: Austrian Architecture in the 20th and 21st Centuries Vienna**

*Through September 2005*

Due to the sheer scope of material covered by the exhibition, a\_show is being subdivided into 10 themes to be opened successively in three stages. The first stage, covering the period 1850–1918, opened in March 2004 with much success. Stage 2 extends to the period from 1919–58. At the Architekturzentrum Wien. Call 431/522-3115 or visit [www.azw.at](http://www.azw.at).

### **2005 Young Architects Program Long Island City, Queens**

*Through September 2005*

Los Angeles-based architecture firm Xefirotarch has been selected as the winner of the sixth annual MoMA/P.S. 1 Young Architects Program, a competition that invites emerging architects to propose a building project for the courtyard of P.S. 1 in Long Island City, Queens. Call 212/708-9400 or visit [www.moma.org](http://www.moma.org).

### **On Tour with Renzo Piano & Building Workshop: Selected Projects Los Angeles**

*Through October 2, 2005*

Featuring several seminal works, this exhibition shows an intimate view of the work of one of the most respected and visionary architects of our time. Piano's involvement in each stage of a building's development, from concept and master plan to construction and detailing, is chronicled

## Dates & Events

in the Ahmanson Building at the Los Angeles County Museum of Art. Call 323/857-6000 or visit [www.lacma.org](http://www.lacma.org).

### **Zero Gravity: The Art Institute, Renzo Piano, and Building for a New Century Chicago**

*Through October 2, 2005*

This exhibition presents delicate models, detailed renderings, and calligraphic sketches of the new north wing at the Art Institute of Chicago created by the architects of the Renzo Piano Building Workshop. At the Art Institute of Chicago, in the airy, evocative setting around the balcony in gallery 200. Call 312/443-3600 or visit [www.artic.edu](http://www.artic.edu).

### **Transformed: Uncommon Uses of Materials in Contemporary Design Philadelphia**

*Through October 9, 2005*

With a focus on both form and function, this exhibition comprises 19 contemporary design objects in the Philadelphia Museum of Art's collection, providing an illuminating look at what happens when today's designers fuse utilitarian objects with unconventional materials, such as silicon, recycled plastic, fibrated concrete, and even goose feathers. The exhibition includes pieces by Ingo Maurer, Frank O. Gehry, Tokujin Yoshioka, and Fernando and Humberto Campana, among others. At the Philadelphia Museum of Art. Call 215/763-8100 or visit [www.philamuseum.org](http://www.philamuseum.org).

### **Tools of the Imagination Washington, D.C.**

*Through October 10, 2005*

This exhibition will show how various devices have revolutionized the way in which architects and designers imagine and create architecture. Included are 250 years of design tools and technologies—from historic pencils, ink, and drafting equipment to the latest and most sophisticated software and hardware, simulations, models, and printers—as well as a wide array of drawings, renderings, and sketches from well-known architects. At the National Building Museum. Call 202/272-4448 or visit [www.nbm.org](http://www.nbm.org).

### **Living, Going, Gone? Mid-Century Modern Architecture in South Florida Fort Lauderdale, Fla.**

*Through October 30, 2005*

Can we still save South Florida's Midcentury

Modern architecture? This exhibition is a photographic journey through Broward and Miami-Dade counties, featuring the work of photographer Robin Hill, who has shot dozens of outstanding South Florida structures dating back to the mid-20th century. At the Museum of Art. Call 954/525-5500 or visit [www.moaf1.org](http://www.moaf1.org).

### **The High Line New York City**

*Through October 31, 2005*

This exhibition features Field Operations and Diller Scofidio + Renfro's winning entry for the redesign of the High Line, a defunct, elevated railway bed that runs along Manhattan's far West Side. In the Architecture and Design Gallery at the Museum of Modern Art (MoMA). Call 212/708-9400 or visit [www.moma.org](http://www.moma.org).

## Lectures, Conferences, and Symposia

### **Promosedia 2005 Udine, Italy**

*September 8–11, 2005*

The 29th Promosedia International Chair Exhibition, the only exhibition in the world dedicated to seating, is a gauge for new trends in design, technology, and marketing. Included in the line-up are promising emerging designers, the winner of the International Chair Design Competition, design talks with leading architects and designers, exhibitors from around the globe, and more. For further information, visit [www.promosedia.it](http://www.promosedia.it).

### **The Semi-Permanent Design Event New York City**

*September 9–10, 2005*

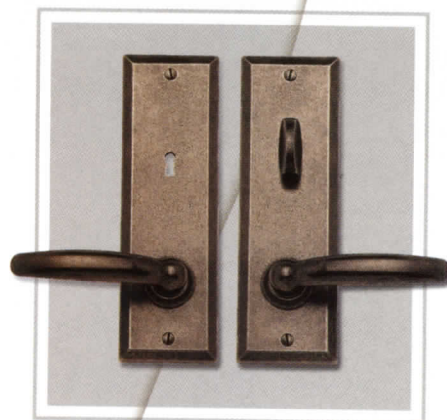
Creative companies from the U.S. and Australia gather to examine the current design climate, showcase leading talent and technology, and offer insight into the future of creative industries. The conference will include a full weekend of speaker presentations and an atrium lounge packed with product and sponsor displays. At Lincoln Center. For more information, visit [www.semipermanent.com](http://www.semipermanent.com).

### **GlassBuild America Atlanta**

*September 13–15, 2005*

The Glass, Window, and Door Expo will be held at the Georgia World Congress Center. For further information, visit [www.glassbuild.com](http://www.glassbuild.com).

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## Lectures

### Spotlight on Design

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### Smart Growth

A series of noontime lectures exploring development strategies that preserve community character and protect the environment

### DC Builds

An ongoing lecture series focusing on current architectural, planning, and public policy issues affecting Washington, D.C.

### Building for the 21st Century

A lunchtime lecture series exploring energy-efficient and economical new technologies and construction techniques

## Exhibitions

### Liquid Stone: New Architecture in Concrete

through January 29,  
2006



UTRACON, SEEN IN LIQUID STONE. COURTESY UTRACON © GMBH

### Jewish Washington: Scrapbook of an American Community

through January 8, 2006

### Washington: Symbol & City

long-term exhibition

## National building museum

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## Dates & Events

### Prague: 20th-Century Architecture in Transition

#### Prague

September 17–23, 2005

The AIA Committee of Design conference will explore design of buildings, sites, and the city in relation to political, social, cultural, and economic transitions and the permanence of the historic, climatic, and geographic environment. At the Hotel Alcron. Visit [www.aia.org](http://www.aia.org).

### 2005 AIA New York Chapter Design Awards Public Symposium New York City

September 19, 2005

A moderated discussion and presentation of outstanding architecture, interior architecture, and unbuilt projects located in New York City or designed by New York architects. At the Center for Architecture. Call 212/358-6117 or visit [www.aiany.org](http://www.aiany.org).

### Spotlight on Design: James Eyre Washington, D.C.

September 19, 2005

The British firm of Wilkinson Eyre Architects employs new technologies and materials with breathtaking results. James Eyre, RIBA, a founding principal of the practice, will discuss its projects, including the Gateshead Millennium Bridge, the National Waterfront Museum in Swansea, Wales, and his proposal for a tensegrity bridge spanning the National Building Museum's Great Hall. At the National Building Museum. Call 202/272-2448 or visit [www.nbm.org](http://www.nbm.org).

### IIDEX/NeoCon Canada 2005 Toronto

September 22–23, 2005

Canada's largest exposition and conference for the design, construction, and management of the built environment. This year's focus is on sustainability and the built environment with an expanded architectural program. In the National Trade Centre at Exhibition Place. Visit [www.iidexneocon.com](http://www.iidexneocon.com).

### Internship Conference: Designing Tomorrow's Architect San Antonio

September 22–24, 2005

Seventy-five invited participants will include key leadership from each organization and a diverse group of stakeholders in the internship process. Cosponsored by the AIA and NCARB,

the conference will be held at the historic Empire Theatre. For more information, visit [www.designingtomorrowsarchitect.org](http://www.designingtomorrowsarchitect.org).

### 100% Design London

September 22–25, 2005

The internationally renowned commercial contemporary design exhibition promises an exciting lineup of established manufacturers and designers as well as first-time exhibitors and upcoming design talent. At Earls Court 2. For information, visit [www.100percentdesign.co.uk](http://www.100percentdesign.co.uk).

### Design for Change: A Symposium on Design, Social Responsibility, and Nonprofit Organizations New York City

September 23, 2005

This symposium will bring together design educators and practitioners and nonprofit administrators to discuss the role of design in addressing larger social issues. The daylong program will include panel discussions, presentations of case studies, and opportunities for informal dialogue. At Parsons The New School for Design. Call 212/229-8919 or visit [www.parsons.edu](http://www.parsons.edu).

### Lecture: Sim Van der Ryn on Sustainable Design Washington, D.C.

September 26, 2005

Using his own projects and teaching experiences as examples, renowned pioneer in sustainable architecture Sim Van der Ryn will discuss the evolution of his thinking and the emergence of a new process of collaborative design that honors a building's users and connects them to the earth. At the National Building Museum. Call 202/272-2448 or visit [www.nbm.org](http://www.nbm.org).

### 2005 National Preservation Conference Sustain America—Vision, Economics, and Preservation Portland, Ore.

September 27–October 2, 2005

The conference brings together experts and practitioners in the diverse specialties that contribute to preservation—architecture and cultural landscapes, historic sites and heritage tourism, heritage education, smart growth and regional planning, downtown revitalization, neighborhood revitalization and housing, organizational management, public policy, real estate development, and more. At the Hilton Portland

# Dates & Events

& Executive Tower. Call 202-588-6296 or visit [www.nthpconference.org](http://www.nthpconference.org)

## CERSAIE 2005

### Bologna, Italy

September 27–October 1, 2005

The world's largest international exhibition of ceramic tile and bathroom furnishings will feature more than 1000 exhibitors from 33 countries. CERSAIE 2005 will include the third annual design symposium, entitled "Bologna Markitecture: Value in Architecture." At the Bologna Fairgrounds. Visit [www.cersaie.it](http://www.cersaie.it) or [www.italiatiles.com](http://www.italiatiles.com).

## ArtHouses: New Directions in Museum and Exhibition Design

### Houston

September 28–October 26, 2005

A lecture series presented by the Rice Design Alliance. A new generation of architects has emerged to imaginatively address the challenges of designing for art of our time. Lecturers include Brad Cloepfil of Allied Works Architecture, Tony Fretton of Tony Fretton Architects, Galia Solomonoff of OpenOffice: art + architecture collaboration, and David Adjaye of Adjaye/Associates. In Brown Auditorium at the Museum of Fine Arts. Call 713/348-4876 or visit [www.rda.rice.edu](http://www.rda.rice.edu).

## Competitions

### Architecture And ...

Deadline: September 12, 2005

In celebration of its 125th anniversary, the Architectural League is seeking proposals for lecture series, conferences, and public programs in other formats; for Web projects, electronic publishing projects, white papers, exhibitions, or installations. "Architecture And ..." is a yearlong series of programs, offering analysis, demonstration, and proposition about the current state and future potential of architecture. For more information, visit [www.archleague.org](http://www.archleague.org).

## 2005 AIA New York Chapter Design Awards

Entry form deadline: September 12, 2005

Deadline for submissions: September 16, 2005

The mission of this design award is to elevate discussion about architecture and to increase awareness of today's outstanding architecture

among the public as well as among architects. Architecture anywhere in the world designed by AIA New York Chapter members or registered architects working in New York City, or architecture located in New York City designed by registered architects practicing anywhere, is eligible. Call 212/358-6117 or visit [www.aiany.org](http://www.aiany.org).

## The 22nd Antron Fiber Design Award

Deadline: September 16, 2005

This award program recognizes designers who are setting new standards in commercial design through the innovative use of carpet. Visit [www.antron.invista.com/designawards](http://www.antron.invista.com/designawards).

## Windscape: An Ideas Competition Envisioning Renewable Energy for Cape Cod

Deadline: September 30, 2005

The competition challenges participants to explore the notion of renewable energy and to better understand the environmental, visual, and other implications of the infrastructure of a wind farm. For further information, visit [www.architects.org/windscape](http://www.architects.org/windscape).

## 2005 NSA Sunroom Design Awards Competition

Deadline: October 31, 2005

Judged in three cost levels as well as type of roof category, the National Sunroom Association (NSA) Design Awards Competition recognizes excellence in design and installation of sunrooms. For more information, visit [www.nationalsunroom.org](http://www.nationalsunroom.org).

## 2005 Source Awards

Deadline: December 2, 2005

This national lighting design competition, which focuses on furthering the understanding and function of lighting as a primary element in design, is open to all lighting designers, architects, engineers, interior and professional designers, and consultants who use Cooper Lighting fixtures in interior or exterior design projects. Visit [www.cooperlighting.com](http://www.cooperlighting.com).

E-mail event and competition information two months before event or submission deadline to [elisabeth\\_broome@mcgraw-hill.com](mailto:elisabeth_broome@mcgraw-hill.com). Edited by Alexandra Gates.



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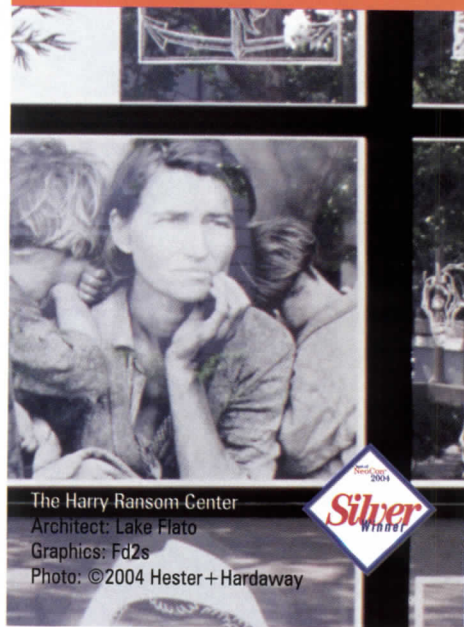
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# 50 Years of Record Houses



**This page:** A concrete study center extending from the Japanese teahouse (below) is the only addition to the original home (above).

**Previous page:** The home's undulating shape has made it a must-see tourist attraction in Orange County.



commission Frank Lloyd Wright to design the Price Tower for his family's oil-services company. Soon after, the younger Price hired Bruce Goff, Wright's friend and admirer, for his own home, and later recruited Goff to design a Los Angeles study center focusing on Joe's passion, Japanese art. When Goff died, his successor, Bart Prince, completed the study center and went on to design Price's Orange County home. Rather than micromanage the process, says Prince, this client simply outlined his lifestyle needs. Eschewing a grand statement to the world, he aspired to a "jewel-box" house just for his family.

A few years after its completion, Price called on Prince to add a small Japanese study center for visiting scholars. While the original building is primarily wood with some copper cladding, the study center, for reasons of security and fire protection, dictated different materials. The addition appears as a monolith of poured concrete extending from the traditional Japanese teahouse that the architect had originally integrated into the home's lower level.

Apart from the study center, the Price House appears today much as it did 14 years ago—and the client, who still lives there with his Japanese-born wife, likes it that way. His only minor complaint, perhaps, is that despite the design's focus on privacy (with each family member granted his or her own "world"), its eccentricity has made it a must-see on tourist itineraries, and its proximity to the road gives gawkers easy access. Otherwise, time seems to have strengthened the bond between the home and its owner. "If I could do it again, I would carry it even further," says Price. "Everything is impractical—the garage doors are Rube Goldberg thing to get open—but it all works. And nothing has aged—besides me."

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*Dave Mooney,  
Cedar Quality Auditor*

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