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Each side of the bridge

Editorial



By Robert Ivy, FAIA

The early 21st century may be remembered as the time America began to crumble. While the assertion may lapse into hyperbole, the collapse of the I-35W Mississippi River Bridge at Minneapolis on August 1 focused our attention on the perilous condition of our structural underpinnings, and we found them weak. While the experts continue to evaluate exactly what went wrong in Minneapolis/St. Paul, this disaster follows in the wake of other spectacular failures in other cities.

Remember Boston in July 2006? We are only now fully sorting through the forensic evidence surrounding the malfunction of 20 ceiling anchors that dropped 10 precast-concrete panels weighing 26 tons into the Interstate 90 tunnel. Just this summer in New York, the streets have blown up (a steam pipe explosion at the intersection of Lexington Avenue and 41st Street on July 18) and the underground drowned (a deluge on August 8 virtually shut down Manhattan mass transit on a busy workday). Apocalypse Now, or are we fraying at the seams? Patricia Galloway, former president of the American Society of Civil Engineers (ASCE), writing about infrastructure on *enr.com*, wrote, "(Can we) assure those using our infrastructure that they are not risking their lives simply by using it?"

According to the ASCE, America's infrastructure requires a massive infusion of capital and energy. In 2005, for its Infrastructure Report Card, a sobering document, the nation's systems received a total grade of D+. The assessment cited the condition of the 590,750 bridges in the system (which they estimate would take \$9.4 billion per year just to maintain "system conditions so costs do not rise.") Additionally, the report cited our battered flood control, which is operating outside "historic patterns"; power, which requires a "smart" grid to reallocate energy based on supply and demand; money for improved water treatment; and additional capacity for airports, straining under 4.3 percent annual growth. The full list included schools, highways, security, dams, waterways, recreation, rail, roads, and waste-management investments. The cost to fix what's broken or absent? The total tab hits the astronomical figure of \$1.6 trillion—a surreal amount.

The problem of maintaining infrastructure lies in its visibility. With few exceptions, you cannot see the source of your drinking water, and you may not know the origins of your electrical power. Politicians recognize that voters rarely get excited about the services, so rarely tout improvements, preferring to champion new pork barrel projects, such as Alaska's Gravina Island Bridge project, the so-called, "Bridge to Nowhere." California offers one strong exception to the rule, where Governor

Schwarzenegger has promoted multibillion dollar bond issues for schools, water resources, and flood protection that will aid California's inevitable growth.

If we lack political will, and the public does not recognize the severity of the crisis, then where do architects fit into this equation? While we may not control the outcome of engineering solutions, we can effectively shape the texture, experience, and fundamental programmatic elements of the built environment. Debra Smith, AIA, a planner employed by Kansas City, Missouri, acknowledges that we may have turned over much of the shape of our communities to engineers and transportation officials, but our roads and bridges "are designed for optimum efficiency, not necessarily for compatibility of adjacent land uses or the way communities look." She says architects must actively promote multiple access routes throughout an urban environment, not just multiple lanes of traffic, and that we can help encourage the planning for our cities and small towns to become places friendly for walking or biking. Uniquely, we think holistically and can champion communities that promote public health, not merely wide highways.

In some cases, our contributions to infrastructure shine. For the San Francisco-Oakland Bay Bridge replacement, one of this nation's largest, the team includes architect Donald MacDonald, who has made bridge design a critical subset of his practice. Many of our greatest successes professionally include avoidance. The stories of elevated highways, proposed and actual, that architects have helped the public to better understand and thus eliminate, includes the proposed Martin Luther King elevated parkway in Des Moines. A three-dimensional model clearly illustrated its detrimental scale to business leaders, who insisted it be dropped to an on-grade solution in 2003. Today, in Honolulu, architects are at the forefront of the opposition to raised light rail, which threatens to block the historic downtown from its unparalleled beachfront. The list goes on.

At the meta-level, architects are engaging with their communities as smart thinkers. If our nation's infrastructure requires attention, we can join with our allied professionals, including engineers and planners, and our own hometowns. Yes, we need updated highways, but not if they encourage sprawl. Yes, we need better bridges, but not necessarily more lanes delivering more people farther out into the countryside. Infrastructure continues to crumble and must be repaired, but ultimately, our concern equally spans the bridges and the communities linked together on each side.

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Letters

Too cool for Congress

In her August 13 news story on your Web site, Barbara Saffir questions why Congress is considering a nonarchitect for the Architect of the Capitol (AOC) post. Maybe it has to do with the erosion of architecture's moral authority. Our profession has traded a once-admirable voice of propriety and practicality for glitz and the spectacular. An example: Architects cannot at once be the credible voice for sustainability, our current mantra, while simultaneously advocating an architecture of fashion. —James A. Gresham, FAIA
Tucson

Getting better all the time

Love the August "Engineering new architecture" issue—another home

run! Between my brother and myself, we've been subscribing for over 30 years, and the magazine is better now than it's ever been.

—Chris Morris
Manhattan

Going the extra mile

William J. Mitchell's Critique on City Cars [August 2007, page 55] holds great potential for solving a serious traffic-congestion problem in New York City. I am a member of the AIA N.Y.C. Transportation and Infrastructure Committee and this issue came up at our last meeting while discussing Mayor Bloomberg's NYCPLAN 2030. Train commuters coming from the suburbs into Manhattan face the problem of getting to the train station by car and having nowhere to park, since parking

lots are full and you need a permit, which could take years to get from the municipality! Many suburbanites are forced to take their cars into the city because they have nowhere else to leave them. For the City Car system to be truly a valet service, however, the cars need to return to their original destination to stack and recharge, rather than sitting idle in a parking lot or driveway. In the interest of encouraging the use of mass transit, could the inventors figure out a homing pigeon autopilot system to return these cars to their home train station? —Edward Cohen, AIA
Manhattan

Corrections

A caption in the August story on Suvarnabhumi Airport [page 112] misidentified one of the apron control

towers as an air-traffic control tower. An August story about downtown Jackson, Mississippi [page 38], incorrectly credited the designers of the Mississippi Museum of Art. Glavé & Holmes Associates was design architect, and Dale and Associates was local architect. New facts have come to light since the publication of July's news story about Yonkers, N.Y. [page 42]. The downtown redevelopment project River Park Center will not break ground this month, as reported, because it has not yet received necessary approvals. Stuever Fidelco Cappelli, the development entity, does not yet have possession of the land, and municipal leaders are still determining which portions of the development they might fund.

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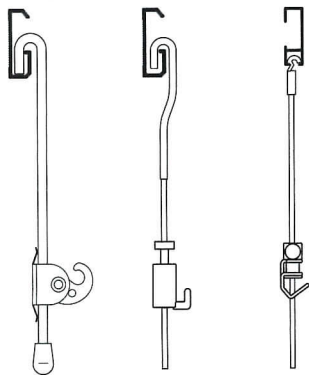
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KPF design for 5 WTC sparks new controversy at Ground Zero

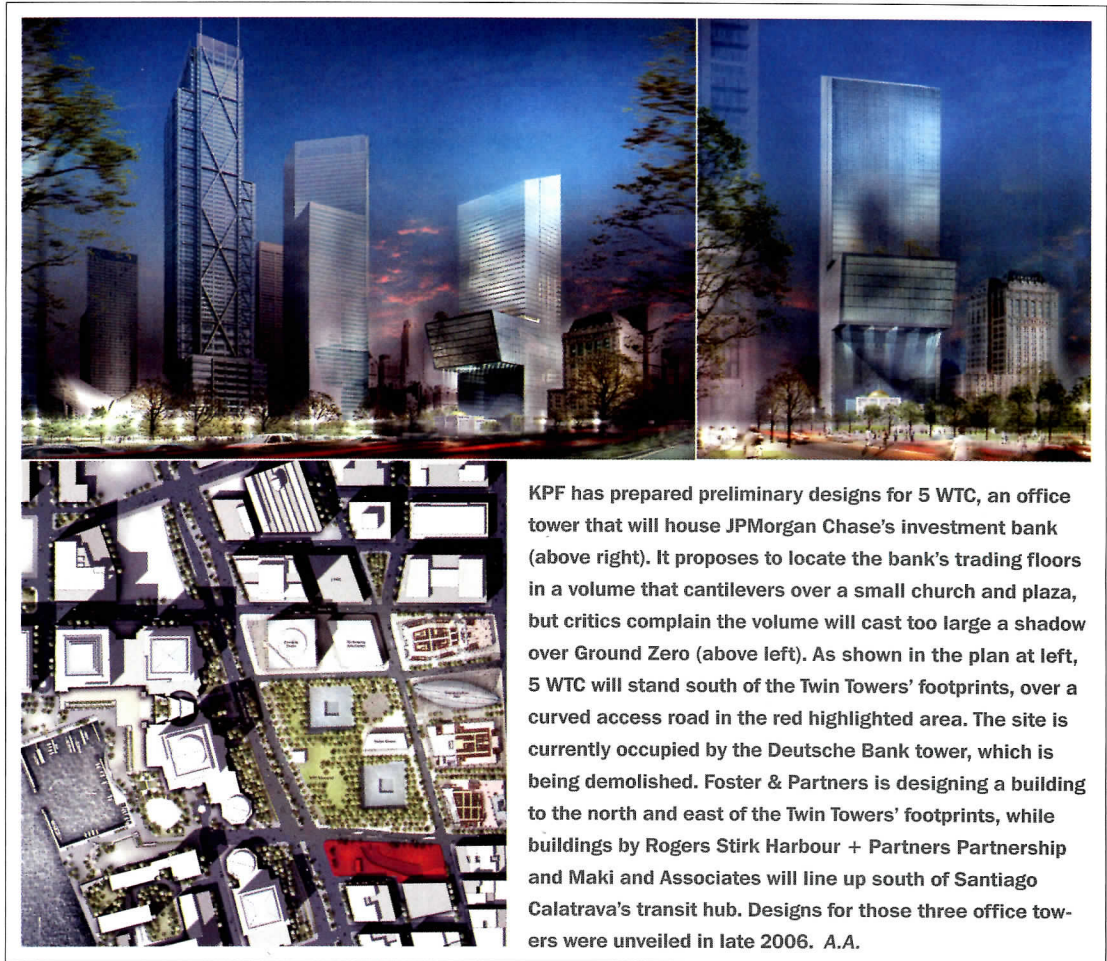
Kohn Pedersen Fox (KPF) chairman Gene Kohn has confirmed that his team is designing a new headquarters for JPMorgan Chase's investment bank at the World Trade Center site—a project that attracted considerable attention in June when the bank announced its intention to build in Lower Manhattan—and stresses that despite an early PR setback, his design will satisfy project stakeholders as well as the public.

Known as 5 World Trade Center (WTC), the new building will replace the Deutsche Bank tower, which was heavily damaged during the attacks on September 11, 2001, and is now being dismantled. Kohn says that he began studying the site two or three years ago at the request of its landlord, the Port Authority of New York & New Jersey. The new tower will occupy a footprint of 32,000 square feet, ceding 18,000 square feet to the St. Nicholas Church, which will be rebuilt after its complete destruction during the attacks.

Kohn says that he performed several massing studies to design a way of wedging large floor plates onto the small available footprint.

"Obviously, the site has a lot of limitations, and the Port Authority wanted to see if JPMorgan Chase would go for it," he explains. Preliminary sketches won the bank's confidence in KPF—but when New York's governor, Eliot Spitzer, unveiled them at a June 14 press conference, observers soon began piling on criticisms.

The most prominent feature of KPF's glass-walled, 743-foot-tall tower is a cantilever located several stories up that is designed to provide space for the bank's trading floors. While most levels of the building comprise 32,000 square



KPF has prepared preliminary designs for 5 WTC, an office tower that will house JPMorgan Chase's investment bank (above right). It proposes to locate the bank's trading floors in a volume that cantilevers over a small church and plaza, but critics complain the volume will cast too large a shadow over Ground Zero (above left). As shown in the plan at left, 5 WTC will stand south of the Twin Towers' footprints, over a curved access road in the red highlighted area. The site is currently occupied by the Deutsche Bank tower, which is being demolished. Foster & Partners is designing a building to the north and east of the Twin Towers' footprints, while buildings by Rogers Stirk Harbour + Partners Partnership and Maki and Associates will line up south of Santiago Calatrava's transit hub. Designs for those three office towers were unveiled in late 2006. A.A.

feet, the seven floors in this section encompass as much as 56,000 square feet apiece. Critics worry that they might cast a sizable shadow over a new public plaza at the World Trade Center site. In a Bloomberg news service item, writer James S. Russell described 5 WTC as "a spectacularly amateurish performance by a firm capable of corporate design at the highest level."

Even Spitzer's comments seemed, at best, a lukewarm endorsement. "I'm not an aesthete, so I refuse to pass judgment on this

or others," he said at the June press conference, "but it will [create] an all-weather park where it's possible to play ball in the rain."

The hubbub over KPF's early sketches prompted the Lower Manhattan Development Corporation, which shepherds financing for Ground Zero, to defend the design in an e-mail news update on July 11. "[The cantilever] will cast a minimal shadow on Lower Manhattan, particularly compared to its taller neighbors," the group said. These possible neighbors, which have yet to attract tenants, include office

skyscrapers designed by Norman Foster, Richard Rogers, and Fumihiko Maki.

Contested designs at the World Trade Center site are nothing new, of course. For his part, Kohn hopes that KPF's design will gain favor as it is refined; a final scheme will be ready this winter. Kohn says that the bank, which officially appointed KPF to design the tower on July 17, wants a beloved downtown landmark. The controversial 5 WTC cantilever, he adds, "acts like a great porch, all glass and very light." Alec Appelbaum

Dr. Strangelove finds home in Cold War relic



Burrowed 50 feet into a hillside near Washington, D.C., a once-secret, nuclear-blast-proof bunker that held billions in cash reopened in August as a showcase for the world's largest collection of moving images and sound recordings. BAR Architects and SmithGroup oversaw the transformation of this cold war-era Federal Reserve Bank facility into the new National Audio-Visual Conservation Center for the Library of Congress.

The nonprofit Packard Humanities Institute purchased

the decommissioned bunker at Mount Pony in Culpeper, Virginia, for \$5.6 million in 1998 and then funded its \$155 million transformation, donating the facility to

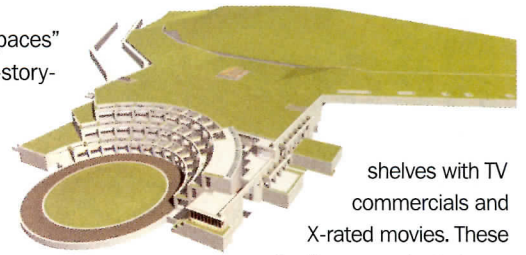
Congress in July—the largest gift ever made to the legislative branch. The 415,000-square-foot complex now provides space for preserving 6 million items from the library's Motion Picture, Broadcasting, and Recorded Sound Division. These items were previously scattered throughout seven locations nationwide.

BAR principal Earl Wilson says that one of the key design challenges was ensuring that librarians and conservationists have access to daylight. Although 80 percent of the structure is below grade, the design-

ers located "people spaces" near a curving, three-story-tall window along the building's rear elevation, opposite the main entry. Openings punched into the 16-to-18-

inch-thick concrete, blast-proof interior walls help channel natural light into the inner rooms.

Three linked buildings make up the 45-acre complex. The main structure contains 187,000 square feet of audio- and video-processing areas, offices, and specialized workrooms for digitalizing recordings from older media, such as cassette tapes and vinyl records. It also includes public spaces such as a 208-seat theater, which will be open for occasional film screenings. At the lowest level of the four-story complex, the Collections Building contains low-humidity refrigerated vaults for storing original recordings. Classic films, old newsreels, rock music, and show tunes share the



shelves with TV commercials and X-rated movies. These collections even include the world's oldest surviving moving image—Thomas Edison's 1893 film of a person sneezing—and, fittingly, the cold war classic *Dr. Strangelove*.

At the opposite end of this lowest level sit 124 metal-clad vaults for storing highly flammable nitrate film reels. When the architects first inspected this section before it was gutted and rebuilt, they found papers and other personal items lying untouched on the 1960s-era desks. "It looked dismal and depressing," says Hal Davis, of SmithGroup's Washington office. "It was an eerie sight, a twilight zone." Perhaps the eeriest thing of all, though, was a cache of body bags—preparations for a nuclear war that, thankfully, never happened. *Barbara J. Saffir*

Client secrecy: Between Iraq and a hard place

The new U.S. Embassy in Baghdad, which is scheduled to open this month, will only be accessible to visitors who undergo extensive security checks. The State Department has tried to deflect attention from the compound, but Internet users got an unexpected peak at it when images were posted online this spring.

Berger Devine Yaeger (BDY), of Kansas City, Missouri, and Sorg Associates, based in Washington, D.C., designed the embassy for a 104-acre site in Baghdad's Green Zone. Tom Engelhardt, a left-leaning blogger and war critic, discovered renderings of the project on BDY's Web site in May and began writing about them. The images were cartoonlike and offered little detail, but they included some bird's-eye views. Citing concerns, the State Department soon ordered that they be removed; as of mid-August, BDY's entire site was still listed as "under construction."

Neither the State Department nor BDY would speak to RECORD



After a blogger discovered this rendering of the U.S. Embassy in Baghdad on Berger Devine Yaeger's Web site, The Associated Press, the British Broadcasting Corporation, and other news agencies published it.

about the incident; Sorg also declined comment. It is unclear how long the images appeared on BDY's Web site, or what kind of security breach their appearance there constituted. Engelhardt and other observers, though, doubt that they were significant. "You can get more information about the project from Google Earth than you can get from these renderings," he says.

Despite the wall of secrecy that


has since gone up around the Iraq project, one thing remains clear: The Baghdad complex will be the largest embassy in the world. The *Los Angeles Times* reported that the 27-building compound will be entirely self-sustaining, featuring its own power generation, water purification, and sewage treatment infrastructure, as well as housing for nearly 400 families, a school, and a fire station.

Other press accounts note that construction has been riddled with problems. *Engineering News-Record*, RECORD's sister publication, reported that electrical faults forced the closure of temporary structures to house security guards, and that the State Department investigated allegations that the Kuwaiti construction contractor brought immigrant laborers to Iraq against their will.

For Engelhardt, the scale of the embassy remains this story's most important aspect—particularly in light of U.S. military bases being constructed elsewhere in Iraq. "It's hard not to see the embassy as part of a larger permanent infrastructure," he says. *Alan G. Brake*

Airports eye new blast protection systems

A row of cement bollards blocking the main entrance to Glasgow's international airport terminal prevented an explosives-packed vehicle from crashing into the building with disastrous consequences in June. Other airports have erected bollards or reinforced-concrete blast walls for the same reason. Jomo Kenyatta International Airport, in Nairobi, Kenya—a country rocked by terrorist bombings in 1998 and 2002—is taking the strategy a step further. As part of \$145 million in renovations, designed by a consortium led by Queen's Quay Architects International, the airport is isolating all vehicular traffic from its three terminals. Blast barriers and shrapnel protectors, disguised as planters, will guide cars toward a remote facility where passengers will undergo security checks. (Visit architecturalrecord.com for images and more information on similar projects in the U.S.) *Albert Warson*



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Coney Island poised for redevelopment

When Coney Island's Astroland amusement park closes its gates this Labor Day weekend, it will be for good. The kitschy but beloved 1962-vintage venue in Brooklyn, New York, is making way for a massive new entertainment and hotel complex



The Wonder Wheel will be spared (left), but Astroland is making way for a new hotel and entertainment complex (above).

developed by Thor Equities. Nearby businesses and residents successfully pushed to have this project scaled back, but there's no stopping a wave of redevelopment sweeping the area.

Astroland sits on Coney Island's famed beachfront Riegelmann boardwalk, which runs 2.7 miles along the Atlantic Ocean, within in a six-block amusement district. Other storied attractions nearby include the Wonder Wheel, built in 1920; the 1939 New York World's Fair Parachute Jump; and the original Nathan's Hotdogs eatery, built in 1916.

Thor has spent \$100 million over the last few years to purchase 12 acres, roughly two thirds of the amusement district. It plans to build 2 million square feet of retail shops,

an enclosed water park, new thrill rides, and hotels. Designed by Ehrenkrantz Eckstut & Kuhn (EE&K), the buildings will feature extensive glass and perforated-metal screens, opening them to the outdoors. And in a nod to the area's history—in particular, the Coney Island Mermaid Parade—a 150-foot-tall glass tower will contain light projections of a mermaid. "Our goal is to create a Coney Island of the future that reflects today's day and age while linking this to the history and traditions of Coney Island's past," says Peter Cavaluzzi, design principal at EE&K. "We are looking to build a safe environment that would draw people all year round."

While steady traffic will be a boon to nearby businesses, many

retail operators—particularly those who will be displaced by construction—are concerned that they will be unable to afford higher rents in the new buildings. And their worries don't end there. "Even if some of us are able to keep our businesses, we will experience years of inactivity since the neighborhood will become a construction site," explains Chuck Reichenthal, district manager for Community Board 13.

Thor has shown willingness to work with the community. After being pressured by residents who live near the development site, it scaled back its plans by 1 million square feet. The community board is also not entirely opposed to change. It supported the city's 2003 rezoning to strengthen the amuse-

ment district's core by allowing new jobs and residential development there. City officials have also allocated \$83.2 million to area improvements, including the creation of new streets, parking, open space, and a community center. It's also building Steeplechase Plaza, a low-to-middle-income affordable housing complex, and will renovate the New York Aquarium, located on Surf Avenue.

Station to augment Penn's existing infrastructure. The new MSG would be located just west of Moynihan. Cockfield says that the low-rise podium of One Penn would likely be razed, but that the tower itself will remain and that Two Penn will be re-skinned. (RECORD's offices happen to be located in Two Penn Plaza.)

Additionally, KPF will design a 2-million-square-foot skyscraper at the corner of 34th Street and 7th Avenue that will be taller than the Empire State Building, located just two blocks away. Cockfield says that the ESDC has yet to assemble a timetable for making the designs public, or for the phases of development. "Some of this is still in flux and people want answers, and there is

frustration in some corners," he says. The destruction of McKim, Mead and White's original 1910 Penn Station, in 1964, is largely credited with establishing the historic preservation movement in the U.S. Charles Luckman Associates designed the replacement station, MSG, and office complex, but the public has never quite embraced them. Separately, plans were announced last winter for the destruction of McKim, Mead and White's 1918 Pennsylvania Hotel, at the northeast corner of 32nd Street and 7th Avenue, to make way for a 2.5-million-square-foot tower designed by Pelli Clarke Pelli Architects and developed by Vornado. *Russell Fortmeyer*

SOM, Foster, KPF to remake Penn Station

Skidmore, Owings & Merrill (SOM), Foster + Partners, and Kohn Pedersen Fox (KPF) have been retained as architects for a multi-billion-dollar-project to redevelop New York City's Pennsylvania Station district, parties close to the deal have confirmed to RECORD.

Bud Perrone, a spokesperson for the project's developers, a joint venture of the Related Companies and Vornado Realty Trust, confirms that a combination of Foster and SOM will prepare the master plan for a site that includes the existing Penn Station, Madison Square Garden (MSG), and two office towers, One and Two Penn Plazas. This

plan calls for razing MSG and capping the subterranean train station with a large glass dome. Brisbin Brook Beynon Architects will design a new MSG, while SHoP Architects has been retained to develop a streetscape plan.

Errol Cockfield, a spokesperson for the Empire State Development Corporation (ESDC)—the state agency involved in organizing public-private development—confirms much of the project's scope. The scheme includes SOM's previously announced transformation of the Farley Post Office, at the southwest corner of 33rd Street and 8th Avenue, into a new Moynihan

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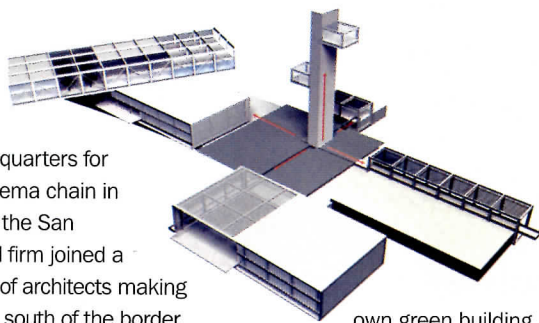
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Sustainable design heads south of the border

When KMD Architects was recently tapped to design a new ecofriendly headquarters for the Cinepolis cinema chain in Morelia, Mexico, the San Francisco-based firm joined a growing number of architects making their green mark south of the border.

Mexican buildings have traditionally incorporated sustainable principles, including using local materials such as naturally insulating adobe, and using courtyards with fountains to cool indoor spaces. Recently, sophisticated green technologies—photovoltaic cells and on-site waste treatment—began working their way into development.

Throughout Latin America, only two buildings, one of them in Mexico, are LEED certified. But the list could grow. Six Mexican projects have registered with the U.S. Green Building Council (USGBC) for LEED certification. And in 2005, Mexico founded its



own green building council (MexicoGBC), the first in Latin America. "Mexico's building and construction industry is just waking up and realizing that we are big players," says Cesar Ulises Previno, MexicoGBC president. "We have a lot of potential to make a difference."

Some companies decide to build green because they want to set a precedent, says KMD principal Carlos Fernandez del Valle. This was the case with Cinepolis's 162,000-square-foot headquarters. Occupying just 10 percent of a hillside site, four low-rise buildings will feature rooftop gardens, daylighting through low-emissivity glass, and ventilation from



KMD Architects' headquarters for Cinepolis (left). A Guadalajara office building by TEN Arquitectos (above).

windows that open onto interior courtyards. KMD estimates that operating costs will be 30 percent lower than comparable-size buildings in Mexico. Another project among the fresh green crop is a \$12 million, 119,000-square-foot office building in Guadalajara designed by TEN Arquitectos. The 14-story tower features a woven steel-mesh skin that protects it from the elements and reduces the strain on heating and air-conditioning. Behind this screen, operable windows in the glazed curtain wall allow for natural ventilation.

As energy costs rise alongside concerns about climate change, Mexican businesses are realizing that sustainable development is worth the investment. But the gov-

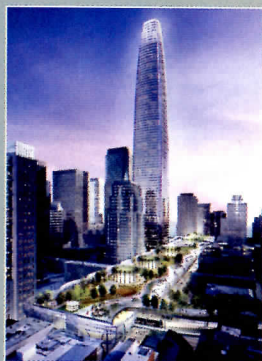
ernment has yet to define standards for determining efficiency, Previno says, let alone offer incentives to developers who go green. "There are buildings here incorporating solar power, recycling water, but how can we define what falls into 'green' and what doesn't if we don't have a formal checklist?"

MexicoGBC is currently creating a LEED program tailored to the country's needs. There are also signs that the government is showing interest in sustainable development. It tapped Alberto Kalach to design the new Biblioteca Vasconcelos public library in the capital city. Kalach's aesthetic features plain concrete and wood, which reduce the use of paint. "When you don't spend energy making an extravagant facade, you consume less energy building it," he says.

With ample daylighting and an on-site water-treatment plant, the 500,000-square-foot library campus embodies both traditional Mexican approaches to green architecture and more sophisticated technologies. "There's a lot of intrinsic knowledge in the design features of Mexican architecture and construction," Previno observes. "We need to rescue those good values." *Ronda Kaysen*

Transbay proposals up for public comment

The Transbay Joint Powers Authority will accept public comments via its Web site until September 17 on proposals for San Francisco's Landmark Transbay Transit Center and Tower by **Pelli Clarke Pelli Architects** (right), **Skidmore, Owings & Merrill** (below right), and **Rogers Stirk Harbour + Partners** (below left). It picks a final plan on September 20. *James Murdock*



Concrete progress made in Ghana

Stephen Kanner, a principal of Kanner Architects in Los Angeles, and his friend Joe Gaddo, an architect based in Ghana, are helping to develop a cement additive that could decrease construction costs there by a one third—no small accomplishment in a country where concrete is the preferred building material and yet few people are able to afford it.

The new additive is called PozzoGhana, a wordplay on an Italian ash-based additive called *pozzolana*. PozzoGhana is made of a mixture of palm kernels, which come from the fruit of palm trees that grow abundantly in Ghana, as well as lime and local clays. It will be used as a supplement to help reduce the use of imported cement, whose cost is rising. The simple process of producing PozzoGhana,

the use of cheap local materials, and the less expensive local labor make it a cheaper option. "It could make a difference in so many construction projects," Kanner says, "especially if we can help with the low-income housing market."

Ghana's Council for Scientific and Industrial Research began developing PozzoGhana's formula 30 years ago. After completing an extensive testing process, the council lacked the money and resources to manufacture and market the additive on a large scale. Last spring, it entered into an agreement with Kanner, Gaddo, and PMC Global, a conglomeration of financial interests based in Sun Valley, California. PMC plans to build its first PozzoGhana factory in Prampram, Ghana, by early 2008, selling the material to contractors, fabricators, and developers. Eventually, the product will be sold throughout West Africa. *Sam Lubell*

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Hadid makes her New York stage debut



Zaha Hadid made her New York City stage debut in July at Lincoln Center's performing arts festival, which presented the North American premiere of Ballet National de Marseille's *Metapolis II*. The work was conceived by Hadid—who also designed the sets and costumes—with choreographer Frédéric Flamand, the company's director. It belongs to a trilogy examining the relationship between the body and the city that Flamand created with leading architects, including Thom Mayne and Dominique Perrault.

Metapolis II envisions a futuristic place "beyond the city" evoking the complexities of 21st-century urban life, in which virtual reality collapses the distinction between actual and simulated while towns encroach

George Yu dies at 43

George Yu, a pioneer in digital architecture, died July 7 of a type of lung cancer that afflicts nonsmokers. He was 43 years old. As both a designer and teacher, Yu helped shape the way that architects envision and use new technologies such as digital imaging and fabrication. But his work always kept the human user in the foreground, never turning technology into an ideology or fetish. He did this by developing a keen sense for materials, light, and space.

"George was able to see the parameters of a digital world earlier than almost anyone else," says Neil

on countryside, confusing the character of both. It is a place where, as Flamand says, "you're everywhere, but at the same time you're nowhere."

To shape this "deterritorialized" world, he and Hadid conceived a mobile, multimedia scenography, creating an effect less architectural than pictorial. Three aluminum-and-fiberglass arches, representing both the city and the forces that drive it, form the set's main elements. The stage serves as a canvas for light shows that bathe it in washes of lush color or abstract designs. With blue-screen technology, live video images of the dancers projected onto the back wall merge with prerecorded footage of city scenes, incorporated into the blank outlines of costumes and props as the performers move. These films then coalesce like puddles and dissolve when dancers leave the stage.

Although the work envisions people in a city not made to their measure, it ends on a hopeful note: A girl encircles her body with a spiral-shaped aluminum sculpture, designed by Hadid. It is a symbol of urban renaissance—perhaps anticipating Hadid's Dancing Towers, now being "choreographed" in Dubai. (Visit architecturalrecord.com for a video of *Metapolis II*.) *Leslie Yudell*

Denari, AIA, principal of NMDA, who taught with Yu at SCI-Arc. "When he started his own firm [in 1992] he was shocking in his ability to imagine how these technologies would change architectural practice."

On his own, and in partnership with Jason King, Yu completed more than 65 projects, many of them for companies involved in new media and innovative design technologies. This pairing of clients and architect meant that each could learn from and teach the other. For example, in the Honda Advanced Design Studio in Pasadena, California (see page 118), Yu borrowed an innovative fabrication technology from the automotive

Water walls shore up digital creativity

Virtual architecture is leaping from the computer screen into real life. Engineers and architects from the Massachusetts Institute of Technology (MIT) have designed a building made of water: a Digital Water Pavilion to be erected next summer at the 2008 World Expo in Zaragoza, Spain. Sponsored by the City of Zaragoza, the 5,000-square-foot, rectangular building will contain displays about the future of Zaragoza and its new Digital Mile district.



Architects are increasingly experimenting with computers to create interactive structures that respond to human needs in real time. But until the advent of new software—the pavilion's designers used standard CAD applications, a proprietary java-based program, and the open-source site processing.org—as well as new sensors and water solenoids, this malleable architecture existed on a conceptual plane. "Now we can put the physical and digital together," says Carlo Ratti, head of

MIT's SENSEable City Laboratory. "This is a way to have responsive architecture—a way to have bits and atoms seamlessly merge."

The pavilion walls will be produced by a water pipe suspended 16½ feet in the air, punctuated by closely spaced solenoids. These computer-controlled valves will be opened and closed to create gaps in the water so that people can walk into the pavilion without getting wet, and to create parabolic shapes and pat-

terns. Hydraulic pistons will raise and lower the stainless-steel roof, allowing the entire structure to disappear.

A water-walled building is appropriate for Zaragoza and other places with a hot and dry climate, Ratti says, because it is chilled naturally by evaporative cooling, avoiding the need for artificial air conditioning. The technology can also be used as a purely sculptural element. "The point that we want to make is that digital architecture should be able to totally appear and totally disappear." *Alex Ulam*



industry and used it to create a sensuously curved interior wall.

Yu was born in Hong Kong but grew up in Vancouver and Victoria, British Columbia. He received a Master of Architecture from the University of California at Los Angeles, in 1988. He worked at Morphosis in Santa Monica, from 1988 until 1992, when he started his own firm in Los

Angeles. Between 1997 and 2001, he worked in partnership with King as Design Office, which had offices in Los Angeles and Vancouver; the pair was honored by RECORD in its first Design Vanguard issue in 2000. Yu also taught throughout his career, first at the University of British Columbia's School of Architecture, then at SCI-Arc.

True to his Canadian roots, Yu was an avid ice hockey player and kept skating with his teammates until just months before he died. He is survived by his wife, Carole, and daughters Dara and Elena. *Clifford A. Pearson*



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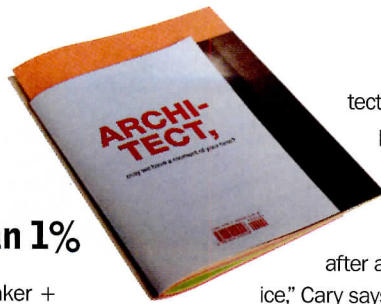
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The 1% helps do-gooders do more than 1%

When Public Architecture launched The 1% Solution in 2005, it tapped into the architecture community's altruism: The San Francisco-based practice and public-service advocacy has since signed up 157 firms to pledge 1 percent of their time to nonprofit organizations that could not otherwise afford design direction. And yet Public Architecture executive director John Cary admits that some of those promises have been "more symbolic than anything." A three-pronged initiative, to be unveiled September 4 along with a name change to simply "The 1%," will help architects realize their best intentions.

While The 1% has galvanized several pro bono jobs—the San

Francisco firm David Baker + Partners Architects, for example, undertook a feasibility study and conceptual design for a Habitat for Humanity development in Oakland, California, as a result of its pledge—Cary says that he's fielded hundreds of queries from architects who don't know how to make good on a promise. Though Public Architecture had channeled architects' desire to help, there were still practicalities to overcome: How to find the right client? What about liability?

With financial support from seven architecture firms, the Web site theonepercent.org has been revamped to provide such assistance. A new matching service links archi-

texts with appropriate clients. It is "modeled most closely after a dating service," Cary says. Nonprofits submit information about themselves and their needs, architects submit information about their capabilities, and the software generates the best potential matches.

"We are almost inundated with phone calls from nonprofit organizations, church groups, and other clients worthy of pro bono design assistance," Cary says. "It's not just our organization that receives those kinds of inquiries, but virtually any architecture firm, AIA chapter, and school. We're not cataloging the needs out there; this Web site will provide for those functions."

The Web site now offers model contract language and contractual

addenda for review and use, drafted with the law firms Long & Levitt and Reno & Cavanaugh. "We don't want this legal dilemma to burden people to the point they can't act," Cary says, adding that official agreements bring dignity to the pro bono client. Both architects and clients can look to the third component of Public Architecture's effort for further guidance. *The 1% Users Manual* (pictured) offers how-to advice and case studies in collaboration.

Cary envisions that September's introductions are just a start, and hopes that this initial phase should build the organization's momentum. "I can imagine that, by finally addressing a lot of architecture firms' questions and needs, we will attract another cohort to The 1%." (Visit architecturalrecord.com to see results of The 1%'s survey of architects who do pro bono work and why.) *David Sokol*

Searching for a non-Architect of the Capitol?

Congress is considering a nonarchitect for the nation's most visible architecture post, the Architect of the Capitol (AOC), and that's riling the American Institute of Architects (AIA). "It's a really big slap in the face to the profession of architecture in this country to select someone other than an architect to be Architect of the Capitol," says Marshall Purnell, FAIA, the AIA's 2008 president-elect. He is heading AIA lobbying efforts to get a licensed architect appointed to the congressional job, which oversees 2,200 employees, a \$450 million budget, and includes everything from managing upkeep on the Capitol building to operating the Senate cafeteria.

The AOC slot has been empty since February, when Alan M. Hantman, FAIA, retired at the end of a 10-year term. Under his leadership, the cost of the Capitol Visitor Center more than doubled, to \$600 million, and its opening date fell three years behind schedule. Although some of these woes stemmed from changes to the building's program after 9/11, they prompted Congress to seek someone with more experience over-

seeing large projects. The AIA contends that the four candidates it recommended have the necessarily qualifications. It also maintains that the AOC needs the design, construction-management, and historic preservation skills that only a licensed architect can offer. The statute creating the AOC position, however, does not require an architectural background—and in fact the job has been held by a number of nonarchitects.

Congressional leaders claim that the AIA's candidates fail to make the grade. "They have not forwarded the kind of architects with experience in managing large projects; in overseeing large campuses; and in the kind of political acumen that's needed for the role," says Howard Gantman, staff director for the Senate Committee on Rules and Administration. That committee, with the Architect of the Capitol Commission, is charged with filling the vacancy. After consulting with the AIA, it hired the headhunter Heidrick & Struggles International and then sent three names to the White House. President Bush, who is not obliged to follow these rec-

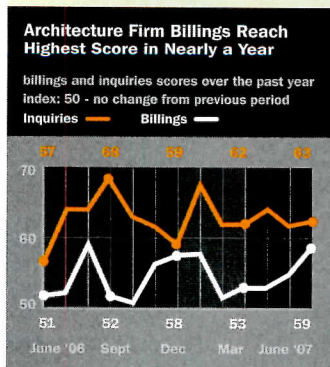
ommendations, will choose the new AOC, and then a majority of the Senate must approve his selection. This could occur any time during the next few months.

The AIA believes that two of Congress's candidates are architects, but that the top choice is not. It is urging lawmakers to make their picks public. "The Architect of the Capitol is responsible for the expenditure of millions of dollars of public funds, and oversees the design, maintenance and operation of public facilities and grounds," AIA C.E.O. Christine McEntee, herself a non-architect, wrote to the committee. "Therefore, we believe that the public

has a compelling interest in, and right to know, who the nominees are so that the public can provide informed advice to their elected leaders about the selection process."

As part of its lobbying, the AIA started a petition that, as of August, gathered 4,000 signatures. It also created a blog on its Web site. The sentiment of many bloggers was captured by AIA member Gerald Lee, from Oakland, California, who wrote that he is unable to understand why Congress "had to look outside the field of architecture to find a suitable nominee" when America has 112,650 architects. "That is ludicrous," Lee said. *Barbara J. Saffir*

AIA's billings index posts robust gain



The American Institute of Architects' Architectural Billings Index (ABI) rose more than four points in June for a total score of 59.3—its highest level since last summer. Institutional projects accounted for much of the gain. ABI data comes from surveys sent to 300 mainly commercial firms. Studies suggest a correlation between the ABI and construction levels in nine to 12 months. *James Murdock*



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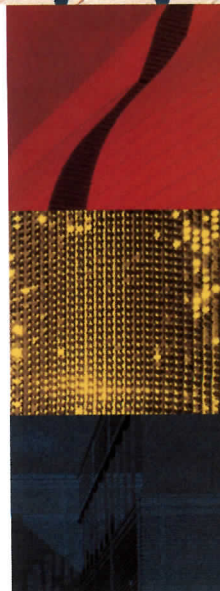
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Saucier + Perrotte Architectes, in collaboration with Marc Boutin Architects, have designed the National Mountain Centre, a Rocky Mountain museum and visitor's center in Canmore, Alberta.



Program elements within the five-story, 55,000-square-foot space will be layered—a touch inspired by geological stratification. The building's form resembles a massive stalagmite capped with a weighty cantilever. Inside, a snaking concrete ramp leads visitors through galleries, while a 98-foot-tall seismic column doubles as a rock-climbing wall, which will be North America's only venue for World Cup rock climbing competitions. Construction on the \$33.4 million center is expected to finish in 2009. *David Sadighian*

Leeser Architecture, based in Brooklyn, won a competition to design the World Mammoth and Permafrost Museum. Located in the Siberian city of Yakutsk, 280 miles from the Arctic Circle, it will be dedicated to the study of ancient mammoth remains and fragile permafrost landscapes. "It's the next best thing to building on the moon," says Thomas Leeser. "In summer, it's up to 90 degrees, and in winter it's easily minus 40." To prevent radiant heat from interfering with the



frozen ground below, the 65,000-square-foot building will be elevated on 20-foot-tall stilts. Its projected opening date is 2009. *Tim McKeough*



The British architect Will Alsop doesn't do quiet buildings, and fittingly his latest North American project will be an icon for a bold development project: one of the largest film studios on the continent. Unveiled last month, Alsop's design calls for a cantilevered, 280,000-square-foot building that will function as a production and office anchor for the new Filmport complex in Toronto. It takes the shape of a giant arc, its inner face wrapped with a glass curtain wall and the outer face with Cor-Ten steel punctuated by a series of bulbous window openings. "It bends over and gives cover to what will be a very lively, public square," Alsop says. *Alex Bozikovic*

Lahdelma & Mahlamäki Architects' Museum of the History of Polish Jews, a 140,000-square-foot building located in Warsaw's old Jewish quarter, broke ground in June. The five-story, cuboid volume features an organically shaped incision through its entire depth that ranges in width from 23 feet to 39 feet. Architect Rainer Mahlamäki says that it references



Moses's parting of the Red Sea. The curved surfaces of this negative space will comprise prefabricated modules of sandstone-mixed concrete, providing contrast to the rigid geometry of the tempered-glass building shell. The museum is scheduled to open in 2009. *David Sokol*

The Buckminster Fuller Institute has launched The Buckminster Fuller Challenge, an annual competition that will award \$100,000 for the implementation of a design solution that

shows potential to solve humanity's most pressing problems while enhancing Earth's ecological integrity. The solution must embody Fuller's Trintab principle: how small amounts of energy and resources applied at the right time and place can produce maximum positive change. Entries will be accepted September 4 to October 30. The prize will be awarded next June, in time for the 25th anniversary of Fuller's death. *C.J. Hughes*

The Morris Mechanic Theater, in Baltimore, was recommended for landmark status by the city's preservation commission on August 14. The group also gave the 1967 Brutalist work by John Johansen "special list" status, which delays construction permits. Developers want to add a 10-story residential tower and retail levels onto the vacant theater. "They call it Brutalist



architecture; I call it a mistake," says Melvin Greenwald, who owns the Mechanic with his son Benjamin. But preservationists, including commission member Michael V. Murphy, AIA, object that "it would be a tragedy to lose this building." *David Sadighian*

Shelby Farms Park Conservancy, in consultation with Alex Garvin & Associates, will issue an RFQ on September 4, with entries due October 4, seeking designers for a 4,500-acre park in Shelby County, Tennessee, at the northeastern edge of Memphis. The land, which is more than five-times the size of Manhattan's Central Park, has remained largely undeveloped since it was last used as a prison farm during the 1960s. "I hope that we cast a wide enough net to get truly the first park of the 21st-century," Garvin says. "It's certainly big enough to be something very special, and a 21st-century park is something very different from what Frederick Law Olmsted imagined when he won the competition for Central Park in the 19th century." Three finalists to design Shelby Farms Park will be picked in November; they will have 20 weeks to tour the site, meet with stakeholders, and develop a master plan. The finalist will be selected in April 2008. *James Murdock*

ENDNOTES

- Perkins+Will acquired Minneapolis-based Rozeboom Miller Architects, which specializes in K-12 design and civic buildings.
- SmithGroup bought AREA Design, a commercial interiors firm in Chicago.
- Gluckman Mayner was picked by Donald and Doris Fisher, founders of the Gap clothing chain, to design a 100,000-square-foot museum for San Francisco's Presidio park. It will house their collection of contemporary art.

- The Harvard Graduate School of Design tapped Mohsen Mostafavi, dean of Cornell's architecture school, to become its new dean in January.
- One fifth of the 2,711 concrete blocks in Peter Eisenman's Berlin Holocaust memorial, opened in 2005, have hairline cracks. Experts are unsure what caused the fractures, but estimate that sealing them will cost \$38 million.
- Arata Isozaki's controversial addition to the Uffizi Gallery in Florence was greenlighted in August after a nine-year delay. Construction begins this fall.

For and about the emerging architect

archrecord2

Making the most of challenges is what architects do, and this month we found a young Paris-based firm, Beckmann N'Thépé, whose fresh take on design is creating waves despite the local leaning toward established firms. We also meet the winners of a competition that turns an insect epidemic into an opportunity to innovate. ONLINE: Is making a name among established architecture firms the biggest challenge for young architects? Respond at construction.com/community/forums.aspx.

Design

Beckmann N'Thépé: Exceptional in Paris



It's always difficult to be a young architect. But Françoise N'Thépé and Aldric Beckmann, founders of Paris-based firm Beckmann-N'Thépé, say the challenges are especially acute in France, due to a strongly established hierarchy and a conservative outlook on experimentation, especially toward those without much experience. "People don't want their money to be spent by 'amateurs,'" says N'Thépé. The situation is even more difficult for her, since she is a woman and a minority (she was born in Cameroon). "Yes, I sometimes feel myself as an exception," she says.

But despite the obstacles, their firm, started in 2002, has already been able to amass one of the most impressive collections of new work in Paris. This includes a social housing tower in the southeast of the city; an extension of the Versailles School of Architecture; a model house in the Parc de la Villette; a future town hall for the city's 17th arrondissement; and a redesign of the Parc Zoologique de Paris, in Vincennes (an eastern suburb of Paris).

N'Thépé studied at the Ecole Spéciale d'Architecture in Paris (she originally wanted to be an interior designer, but amazingly she signed up at the wrong school!), where she studied with French architects Odile Decq, Paul Virilio, and Frédéric Borel. She worked for French/German firm LIN. Beckmann, born in Paris, studied at the Ecole d'Architecture Paris la Seine, and worked for architects François Seigneur, Will Alsop, and Jean Nouvel. The two met at Seigneur's office, where N'Thépé was freelancing.

Their first big break came when they won the Nouveaux Albums des Jeunes Architectes Award, a major prize organized by the French Ministry of Culture, in 2001. The requests and contacts that came after this allowed them to formally start their new firm the following year.

La Villette, Paris, 2003

A prototype house inside the Parc de la Villette in Paris. The "infinite" wooden house—evocative of artist Sol Lewitt's sculptures—is made of thin repeating wood columns and beams.



Mairie du 17ème Arrondissement, Paris, 2007

The renovation of this neighborhood town hall will refit a 1960s building with glass partitions and light screens, opening the space to light and air.



Masséna Apartments, Paris, 2007

For public housing in a large development zone called Paris Rive Gauche, a large open space cut into the center maximizes natural light.



The firm has a strong interest in research and investigating new materials and new processes, combined with sensitive, intuitive design. Their buildings are unique, sculptural (N'Thépé says the firm has a “plastician” way of drawing projects), and even sexy, but they all feel strongly rooted in their locations. “Our first approach to architecture has always been about how cities function,” says N'Thépé. “We’re very aware of how our ‘sculptures’ emerge, about the context and the stories we want to create.”

With its Versailles project, completed in 2005, the firm made small changes throughout the Classical-style school, like spiral-shaped neon lighting,

new skylights, and bright new colors. It also fit a bold translucent Teflon membrane on top of the building’s courtyard, and created a futuristic new classroom with a translucent drop ceiling that projects fluorescent lighting patterns and colors. Their public housing project, finished this year in a tight development zone called Paris Rive Gauche, maximizes natural light through a large “fault” cut into its center. The Vincennes zoo project will use artificial materials like steel, Teflon, glass, and plaster to create naturally inspired forms, such as massive rocks and a bubbly, translucent greenhouse dome. The firm, which has also stayed busy participating in exhibitions in Paris, Bordeaux, and Brazil, is now looking to branch out in both architecture and urbanism, “especially abroad,” says N'Thépé. So, if all goes according to plan, there will be a whole new set of hierarchies and expectations to defy. *Sam Lubell*



Parc Zoologique de Paris, Vincennes, 2010

Artificial materials like steel, Teflon, glass, and plaster will create naturally inspired forms such as massive rocks and a bubbly, translucent greenhouse dome.

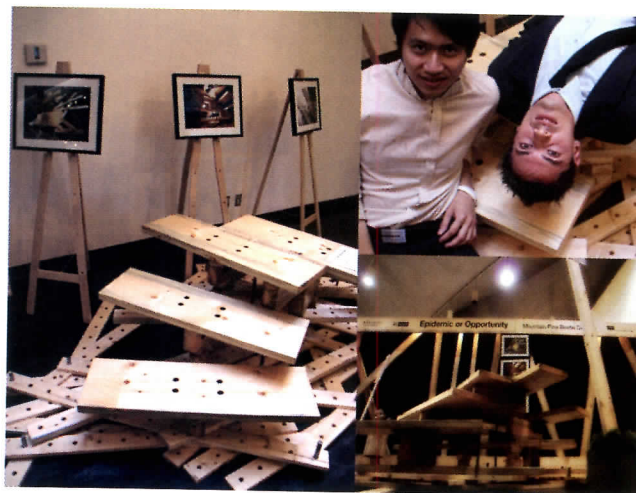
ONLINE: To view additional photos and projects by Beckmann N'Thépé, and to comment on this article, go to architecturalrecord.com/archrecord2/.

Work

Mountain Pine Beetles: epidemic or opportunity?

The Mountain Pine Beetle is altering the landscape of British Columbia’s forests, infesting pine trees and staining the wood blue. It is estimated that within the next 10 years, 80 percent of the pine forests in British Columbia will be infested, as warm winters have allowed the beetles to multiply at alarming rates. Since there is no solution to this problem currently, the wood industry must develop a new system to harvest the wood, which remains structurally stable if harvested within three years of infestation.

While some view the Mountain Pine Beetle situation as an epidemic, others recognize an opportunity for architects and designers to create a market for a new and unique product. A competition, sponsored by the Architectural Institute of British Columbia (AIBC), the Interior Designers Institute of British Columbia (IDIBC), BCWOOD, and *The Vancouver Sun*, was held as part of the Interior Design & Urban Living Expo (<http://www.dvexpo.ca>) in Vancouver, and eight finalists were chosen to create consumer facing or architectural applications for the wood. Competition organizers hoped to give pine wood an image overhaul in the same way that Alder wood, which was considered a “weed wood” 15 years ago, is now popular with designers.



In 2007, designs by Tseng and Amin (top right, left and right, respectively) were displayed at Design Vancouver and the AIBC Gallery Show.

Most participants designed furniture using the Mountain Pine Beetle wood, including chairs, room partitions, and coffee tables. Vancouver-based intern architects Abdel Munem Amin and David Yi-Jen Tseng created the only architectural response to the competition—a modular stair titled Six Steps: Blue Modular. In line with the competition’s call for mass-market applications, the stair can be reconfigured to accommodate any orientation or distance

between floors. “We played around with the texture of the stained wood to maximize the uniqueness ... [it] adds a new dimension to the story that this wood tells,” Amin explained.

Amin and Yi-Jen Tseng met while attending architecture school at McGill University and hope someday to form a partnership and establish an international practice that combines their passions for discovering new cultures and places and designing regionally sensitive architecture. Abdel, a Czech-born Palestinian who has spent time in Japan and Jordan, is intrigued by the psychological implications of space. Born and raised in Taiwan, Yi-Jen Tseng traveled and worked as a freelance graphic designer in Asia for several years, designing CD albums,

logos, and packaging, and Web sites, in addition to his architectural experience with residential interiors and boutique hotels. *Murrye Bernard*

ONLINE: To view additional photos of Amin and Tseng’s winning design, and to comment on this article, go to architecturalrecord.com/archrecord2/.

Big Brother hitches a ride with a congestion-pricing scheme

Critique

By Michael Sorkin

As part of his recently released plan for New York by the year 2030, entitled *PLANYC: A Greener, Greater New York*, Mayor Michael Bloomberg is actively promoting a scheme for congestion pricing in the busiest parts of Manhattan. Modeled on programs in Singapore, London, and Stockholm, the system is intended to curb vehicular traffic (and raise money for public transportation) by imposing charges (\$8 for cars and \$21 for trucks) to enter the borough below 96th Street. The proposal has the support of virtually every *bien-pensant* urbanist in town, although it has met some resistance, particularly from the outer boroughs and suburbs where car dependence is highest and public transport thinnest. And there are many who suggest that the burden of the charges will fall disproportionately on the poor.

I certainly support radical measures to reduce traffic in Manhattan, and congestion pricing has a good track record in the cities that have tried it. But there is something disquieting about the system. The arguments that it will be a trivial burden to the man in the Mercedes and a serious one to the busboys in the battered banger have real merit. But what really chills me is the means by which the system will be run. As in London, routes into the city are to be monitored by cameras that will photograph all incoming

Contributing editor Michael Sorkin runs his own design studio and is the director of the urban design program at City College of New York.

cars and record their license numbers, information that will be used to generate the necessary billing. And the system will presumably be capable of other levels of photographic observation and will surely be linked to other networks and databases administered by our anxious state.

Tracking cars and people

Earlier this month, the front page of *The New York Times* carried a story headlined, "Police Plan a Web of Surveillance for Downtown—Like London Ring of Steel—A Call for 3,000 Cameras—New York Seeking More Antiterror Aid." These cameras would join close to 5,000 private and public security cameras already in operation in Lower Manhattan. Technologically speaking, the plan is identical to the apparatus for congestion pricing—for its reliance on cameras and license-plate scanners; its potential to incorporate face recognition software and other suspicious algorithms; and the massive, largely unregulated, database it will compile. While the police disingenuously offer that a closed-circuit TV camera on the street is equivalent to an additional cop on the beat, civil libertarians suggest that there is an important difference between simply being observed in a public place and having information about your movement, activities, and whereabouts recorded, stored, and shared.

The authoritarian risks of such systems are thrown into particular relief by their congeniality to more unabashed authoritarian regimes.



A congestion-pricing plan in New York would require cameras around the city.

The Chinese government is in the process of installing more than 20,000 CCTV cameras in the city of Shenzhen (with face-recognition software provided by a U.S.-financed company, China Public Security, incorporated in Florida) that are to work in tandem with new I.D. cards for all residents.

Storing lots of information

These cards will have embedded chips (again with software from China Public Security) that are to contain staggering amounts of information, including work, credit, and reproductive histories; religious and ethnic data; medical insurance status; transit payments; landlord phone numbers; police records; and room for lots more. And the Shenzhen police already have the capacity to track the location of all cell phones in use in the city. Clearly, such invasive systems threaten any reasonable idea of a right to privacy.

This transformation is fundamental. Cities—and the organization of space in general—are key media by which we sort out the boundaries between public and private; the public side of the equation is increasingly squeezed. The dramatic acceleration of surveillance post-9/11 is one marker of the contraction, and police agencies—public and private—are enjoying virtual carte blanche to intrude both in the traditional public realm (the streets of the city) and in the private, as well. As geographer David Harvey observes, "The 'war on terror' has everywhere been deployed as an excuse to diminish political and civil liberties." The profusion of data-mining, phone taps, biometric screening, DNA testing, and other intrusive technologies are *political and cultural* developments of truly frightening implications, erosions of our most basic freedoms, including what Henri Lefebvre has

Critique

famously called “the right to the city.” The supportive incorporation of “terror” as part of the standard repertoire of architectural and planning due diligence—like fire or seismic protection—is astonishingly sinister and far exceeds any simple utilitarian account. As a profession, we are far too compliant in advancing this threatening regime.

Spaces of free access

The contraction of the public realm, however, extends beyond these Orwellian developments. Public space is produced from the private: In democracy, the commons is always a compact about what is to be shared, what reserved; about where we choose to interact with the other. There’s been a lot of criticism from certain academic quarters about traditional notions of public space, about overidentifying the idea with streets, squares, parks, and other historic settings for face-to-face interactions. This critique is predicated both on the idea that these spaces fail to acknowledge the existence of multiple publics and that a purely spatial definition of public space is inadequate in the Internet age (or any other). While the idea of a one-size-fits-all public arena surely risks its own oppressions, spaces of free access are foundational to civil liberty; winnowing them, whether for nominally progressive or out-and-out reactionary reasons, is very risky. Public space that excludes the civic—supporting only private forms of exchange—puts our democracy under radical threat.

Consider Starbucks. The problem with Starbucks isn’t the instance but the aggregate. I’ve just returned from several weeks in the suburbs, and Starbucks was a lifeline. Not simply the only source of decent coffee for miles, it was also an oasis of conviviality with its comfortable chairs, free newspapers, and relaxed vibe. The Starbucks I frequented was part of a big shopping center, sand-

wiched with a couple of other smallish shops between a monster supermarket and a gigantic Lowe’s box. Not that we had no choices: Another local supermarket had a kind of satellite Starbucks right inside the store, along with a pharmacy, a bank, and various category-stretching elements of the supermarket itself: bakery, liquor store, deli, hardware, florist, and so on. Being there, I felt a little like Nikita Krushchev on tour, visibly staggered by the sheer scale of the operation and of the choices on offer in American capital’s most perfectly staged spectacle of consumption.

A genuinely public realm

The problem with the suburbs (and, increasingly the city) lies both in the homogeneity of their formats and the frequent elusiveness of a genuinely public realm, the fact that a coffee always comes from Starbucks or Dunkin’ Donuts and that the street on which these stores sit is always a parking lot or supermarket aisle. The difficulty is not the lovely houses and gardens in the suburbs, nor the qualities of neighborliness they can produce, but an interstitial tissue that is only negotiable by car. This is a toll even more severe than the downside of congestion pricing—financially, in the alienating effects of hours spent sealed up alone, and socially, for those people it excludes. Over years of visiting elderly parents in the suburbs, I have watched their possibilities contract in a system in which a carton of milk or a visit to a friend require an increasingly perilous drive on the highway.

It’s Sunday in New York, and I’ve just returned from a walk to buy a coffee—at Starbucks. There’s one a block away and, as I’ve mentioned, the coffee is tasty, despite the foolishness I feel when forced to order a “grande” instead of a medium. While strolling over, I’ve counted the security cameras on the single block between here and



In the suburbs, much of the public realm now resides in places like Starbucks.

there. There are 15 visible to me. Fifteen. This paranoid voyeurism by the authorities surely contracts our relationship to the spaces over which we—whatever “public” we happen to belong to—exercise proprietorship and in which we feel comfortable and “at home.” The line between the friendly cop on the corner and Big Brother is not obscure.

Too high a price

I’d love to get some traffic out of the neighborhood, but those cameras may be too high a price to pay. Such are the ambiguities of unfreedom that the exclusion of cars on the one hand and their indispensability on the other can be servants of the same agendas of monitoring and control. At the same time, their use (or nonuse) remains emblematic of the freedom at the core of what makes

both cities and suburbs desirable to their denizens. Technology is a human artifact, and its role in culture is neither autonomous nor neutral. I have no doubt that we are at a watershed not simply in terms of the way in which we deploy technologies of surveillance, mobility, and control, but that the character of the public realm is under enormous threat from both too much government intervention (by the get-government-off-our-backs creeps in power) and the concession of too much of the public realm to private interest. A shopping mall is not the same as a street, and a security camera on every corner is not your pal. ■

ONLINE: Will congestion pricing work in Manhattan? Answer at architecturalrecord.com/community/critique.

Why bad things happen to good buildings

Commentary

By Victoria Newhouse

Architecture affects the viewer's perception of what is contained within it; depending on its design, a space can enhance or diminish the art and things it houses. Yet I have found that the reverse is equally true: that the choice and display of contents influence critical assessments of the container.

Museums are particularly vulnerable in this respect, given the constant interaction between users and spaces that must be adapted to changing shows. Additionally, when innovative architecture comes into play, exhibition requirements can take a back seat, especially in museums that function also as tools of urban renewal, tourist attractions, and even political appeasement.

Three recent museums and an exhibition hall illustrate the issue. Daniel Libeskind's Jewish Museum in Berlin (1998) and Richard Rogers's Millennium Dome (1999) in London both suffered from the poor selection and display of their contents. Meanwhile, the Glass Pavilion by Kazuyo Sejima and Ryue Nishizawa of SANAA at the Toledo Museum of Art (2006), in Ohio, and Renzo Piano's Museum of Contemporary Art in Lyons (1995), France, have been affected by other aspects of their use.

Good design—no matter how unconventional—can always function successfully given patience and perseverance in adapting to it. During a recent visit to the High

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Museum in Atlanta, I expressed surprise, following initial problems with displays, at how well Richard Meier's 1983 building worked. Marge Harvey, director of architectural design, responded that it had taken 20 years to learn how to use the building. A recent renovation by Lord Aeck & Sargent improved the glazing of skylights and windows so they could be uncovered for the first time. Says Harvey, "We now know how to use the open spaces, the vistas, and the columns to the advantage of the artwork, grouping paintings, sculpture, graphics, and decorative arts, and using wall colors to complement the objects."

For the 18 months that the Jewish Museum in Berlin was open to the public with nothing in it, the building was acclaimed as a masterpiece. Among other accolades, Jane Kramer in *The New Yorker* called it "the most powerful building to go up in Berlin in the past 10 years." However, with the permanent exhibition in place, the building was denounced in the local press as "a built horror."

The change of opinion comes from misuse similar to that of Frank Lloyd Wright's Guggenheim Museum in New York City (1959). At the Guggenheim, cramming large-scale works (Mark Rothko and Ellsworth Kelly come to mind) into bays designed for relatively small easel paintings and sculptures has produced ongoing criticism of the space's ability to exhibit art satisfactorily. Likewise, at the Jewish Museum, overloaded galleries created a visual cacophony that obscured the building's merits.



At the Toledo Museum of Art's Glass Pavilion designed by SANAA, a simplified curtain scheme minimizes the impact of the building's transparency.

Libeskind repeatedly said that in Europe, where the Holocaust took place, he wanted to avoid the kind of literalness needed in the United States to convey faraway events, an approach James Freed used so successfully at the Holocaust Memorial Museum in Washington, D.C. (1993). So the recent comment to me in a private conversation by the director, W. Michael Blumenthal, a former secretary of the U.S. treasury, that he chose the U.S. institution as a model for the exhibitions in Berlin presents a distinct irony.

Blumenthal admits that "aesthetically, Berlin's was not the most beautiful exhibition in the world." The point came home to me on a recent visit when I compared the first permanent exhibition galleries with one that was redesigned in 2005 by the firm of Bertron Schwarz Frey (BSF).

Any unconventional space

spooks curators committed to white-cube galleries. Rather than fight these conditions, BSF embraced them. Libeskind's oddly shaped windows that had been covered over were opened up (ultraviolet filters, drawers, and a walk-in cube provide light protection), and freestanding rectilinear displays now contrast with the building's asymmetrical spaces. Key objects, such as a romantic oil portrait of Albertine Mendelssohn-Bartholdy, are highlighted in niches and vitrines within thick, opaque-glass walls—one of several clear and elegant presentations that harmonize with the container.

At Libeskind's recently opened Denver Art Museum [RECORD, January 2007, page 84], Daniel Kohl, the in-house designer, employed a similar strategy. His colored partitions stand clear of the asymmetrical exterior walls, providing traditional display

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conditions when needed. In some cases, contemporary paintings hang directly on slanted walls on which they seem to float. The surprise of a large Louise Bourgeois sculpture hanging behind a corner is one of several instances of Kohl's contention that the building encourages exploration and discovery.

Poorly conceived displays were responsible to an even greater degree for what *Domus* magazine called the "unanimously catastrophic" reviews of London's Millennium Dome [RECORD, December 1999, page 78]. Instead of the innovative architecture envisaged for the 12 pavilions inside the Dome, all but three were commercially designed and looked like they belonged at a corporate trade fair. Even more damning were the subjects chosen for the pavilions: Instead of the original concept of canvassing the British public for ideas, a government-appointed Millennium Commission designated elusive themes such as "faith" and "shared ground" related to the Labour Party's "new values." Of the three architects who attempted novelty—Nigel Coates, Eva Jiricna, and Zaha Hadid—only the formidable Hadid was able to retain control of the interiors (in her *Mind Zone*). Responding to my question about what happened, Rogers said simply, "Lack of leadership. A good building needs a clear vision, and a committee has no vision."

The critics' trashing of the Dome's contents completely overshadowed Rogers's extraordinary engineering achievement and even prejudiced reports of its price. The structure's under-budget construction cost (43 million pounds) was constantly confused with figures of the whole Millennium enterprise (1.5 billion pounds) and with those of the Dome and its contents (758 million pounds).

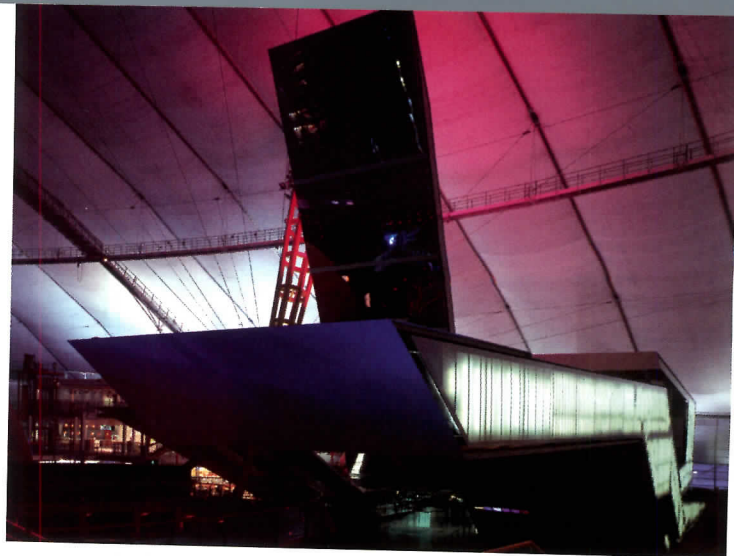
A pavilion to house the renowned glass collection of the Toledo Museum of Art [RECORD,

January 2007, page 78] presents a different but analogous problem. How do you display glass art in a glass container? Given their innovative use of structural glass in previous projects, Sejima and Nishizawa were a logical choice to design this stand-alone addition to an early-20th-century building. What they did was create a container that is a paean to the diaphanous quality of glass. Indeed, their Glass Pavilion exceeds all expectations in the unusual complexity of its apparent simplicity.

How surprising, then, to find in this incarnation of transparency and natural light galleries with heavy, densely placed casework at odds with the spirit of the architecture. Equally troubling are the uniform curtains that curators nearly always draw to protect galleries from sunlight. Although SANAA designed the curtain system, its effect is similar to that of being enclosed in a bathroom shower.

The architects had envisioned sparsely placed, see-through casework and thin textile curtains (developed with Petra Blaisse of Inside Out), which would be adapted to the particular functions of various areas and maintain the transparency and sobriety of the architecture. A translucent polyester voile, gray on the interior and silver on the exterior, was to serve galleries containing light-sensitive objects; a sturdier version was to shield the glass-making hot shops; and for the multipurpose room, an acoustically absorptive and shading curtain with a silver floral pattern on different backgrounds for interior and exterior was to be more festive. Cost considerations coupled with a new director and chief curator, though, resulted in the less expensive, uniform curtains that visitors see in the actual building.

Several people associated with the Toledo museum expressed reservations to me about the way the building is being used. However, record attendance has overshadowed



Zaha Hadid's *Mind Zone* exhibition was a success at the Millennium Dome.

owed these issues, as indeed it has with the issues at the Jewish Museum in Berlin.

Designing with flexibility in mind would seem to be a way of avoiding such problems. This was what Piano did at the Museum of Contemporary Art in Lyons, a building meant to be changed by the user. Belonging to the multiuse Cité Internationale de Lyon, this part-renovation, part-new structure shows primarily site-specific contemporary art.

Thierry Prat, one of the museum's two directors, told me recently that he and his associate had asked the architect for a closed container with walls that appear permanent but can be infinitely reconstructed. Easily changeable walls and closely spaced ceiling tracks containing the technical systems have indeed allowed the galleries to be constantly reconfigured in a lively series of exhibitions. But because the museum has almost no budget for maintenance, Piano's signature detailing has almost disappeared. Together with a top-floor skylight that's permanently blocked and windows facing the lovely Parc de la Tête d'Or that are constantly screened, such actions and inactions have rendered the building a ghost of a Renzo Piano museum.

Fortunately, for every disjunction between user and used, there are abundant examples of harmony between the two. Small museums continue to crop up whose scale, light, and materials are tailor-made for private collections and exhibitions monitored by their owners. Richard

Meier's Frieder Burda Collection in the little German spa of Baden-Baden is a fine example. Many of its walls and half-walls are perfectly scaled to a single work hanging on them, illuminated by controlled natural light, in some cases from skylights directly overhead.

Herzog & de Meuron's de Young Museum in San Francisco [RECORD, November 2005, page 82] also delivers a novel arrangement of public and gallery spaces penetrated by glass-enclosed courtyards. While most of the galleries—American, Oceanic, and African—are used to optimum effect, several of the largest 20th-century spaces still lack art objects commensurate with their scale.

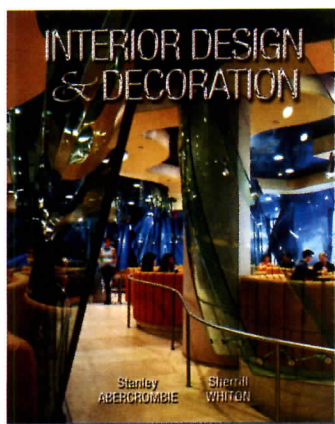
Given the experimental nature of Jean Nouvel's Musée du Quai Branly in Paris [RECORD, February 2007, page 86], I was not surprised by a curator's estimate of three to four years to establish what she calls "the museum's rhythm." With the help of comments from the public, those in charge of this daring new building are already improving orientation, reconfiguring three of the 30 intimate "box" displays, and adjusting lighting.

It would seem that architectural integrity is preserved only when a building's users are committed to the designer's original intentions. Curators at the Jewish Museum in Berlin and to a certain degree the private enterprise now in charge of London's Dome (now called The O2) have shown this commitment; those in Toledo and Lyons, less so. ■

Surveying the world of interiors and some dream worlds, too

Books

Interior Design & Decoration, by Stanley Abercrombie and Sherrill Whiton. Upper Saddle River, N.J.: Pearson Prentice Hall, 2008, 697 pages, \$150.



Interior Design & Decoration has been around for generations, even though Frank Gehry's cafeteria for the Condé Nast headquarters graces the cover. Sherrill Whiton, the Beaux-Arts-trained president of the New York School of Decoration, began a series of home-study guides to the decorative arts in 1916 and bound them together as *Elements of Interior Decoration* in 1937, and it has been the bible of interior-design-school students ever since. Stanley Abercrombie brought it up-to-date in 2002, and now again, in this, the sixth edition. (The book assumed its current title in 1972.)

The Whiton-Abercrombie survey is a readily accessible guide to the history of architecture and its allied arts. Beginning with Lascaux and running up through Russell Wright, Anni Albers, and SOM, the authors highlight the important

buildings, materials, furniture, and crafts of the major periods. The ancient Western World and the Renaissance are joined by such Eastern cultures as India, China, and Japan; there is also a new chapter on Africa from prehistory to the present. There is a fat glossary (from Aalto to Zwischengoldglas—vessels with gold leaf between layers of glass) and an extensive bibliography.

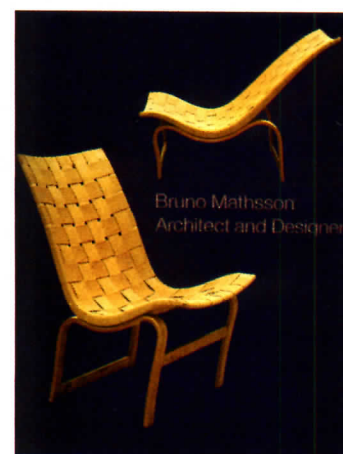
A textbook with the term *decoration* in the title might prejudice a lot of architects, but it provides an easy way to reacquaint ourselves with those important things we learned a long time ago, like the Classical orders and the tatami system. Most of all, the book is a healthy reminder that architecture and its decoration used to be a unified field. Robert Adam, Schinkel, Richardson, and Lutyens, as well as Behrens, Mies, and Rietveld did not call upon the services of decorators.

Abercrombie may have brought *Interior Design & Decoration* a long way from its roots as a decorator's manual, but it does not begin to address the long-running ideological dispute between architects and "interior architects." This is more than sibling rivalry, for the stakes are high given the number of states where interior designers are seeking professional licensing. In vetoing legislation regulating interior design services, the governor of Indiana argued against regulation in part because it would limit competition. The Hoosier chief executive clearly understands that interior design is a business, while architecture is a profession. *William Morgan*

Bruno Mathsson: Architect and Designer, by Dag Widman, Karin Winter, and Nina Stritzler-Levine. New Haven: Yale University Press, 2007, 224 pages, \$60.

Bruno Mathsson (1907–88) is well known as Sweden's preeminent Modern furniture designer, and less well known as the designer of some 40 buildings, most of them houses constructed in the 1950s. This first English-language book on his prodigious output documents his achievements, providing the reader with hundreds of images and three authoritative essays. One essay, by the late curator Dag Widman, follows Mathsson's evolution as a furniture designer, beginning with an apprenticeship in his family's cabinet-making shop (he never finished high school) and his discovery of Alvar Aalto's work in Finland. Mathsson's furniture would become more anthropomorphic than Aalto's, with lush curves mimicking the human form. Edgar Kaufmann, Jr., brought Mathsson's work to America, first by purchasing 20 Mathsson chairs for the Museum of Modern Art in 1937; then by featuring his work in eight exhibitions from 1940 to 1955, when Kaufmann was MoMA's head of design. With Kaufmann's help, Mathsson also toured the U.S. in 1948, visiting the Case Study Houses under construction in California, including the one designed by Charles and Ray Eames.

Mathsson brought architectural ideas from the United States back to Scandinavia. His furniture designs, meanwhile, became part of post-



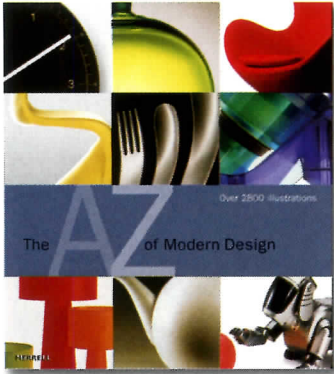
war America's penchant for "Scandinavian Modern." But unlike other Modern furniture designers, including Eero Saarinen (who associated himself with Knoll) and Eames (who formed an important relationship with Herman Miller), Mathsson rarely let his pieces be produced outside his own factory in rural Varnamo. In the book's third essay, Nina Stritzler-Levine writes that this prevented him from achieving true stardom. But "shepherding prototypes through the manufacturing and marketing phases of design is an essential aspect of both a national and global design culture," writes Stritzler-Levine. It's a lesson few of today's young designers are likely to forget. *Fred Bernstein*

The A-Z of Modern Design, by Bernd Polster, Claudia Neumann, Markus Schuler, Frederick Leven. London: Merrell, 2006, 540 pages, \$35.

Modern design, defined here as "the creation of objects with a

Books

practical function as well as aesthetic characteristics," is the fascinating soft underbelly of architecture. Anthologies such as *The*



A-Z of Modern Design are part of the burgeoning industry that elevates humble yet elegant objects to museum-worthy classics: Fiskars scissors, an Olivetti typewriter, a Dyson vacuum cleaner, or a 1953 Studebaker

A-Z is one of the best of its genre. The book is informative, has good photography, and is affordable, making it a handy introduction to the subject. But, as the English version of a German edition, the volume is certainly Eurocentric. Although it claims to be the "most comprehensive reference available to international product design," its geographic bias implies there is little design of consequence in Asia beyond Japan, and none at all in Australia, Africa, or South America. The indubitably superior design sensibilities of the Finns, Italians, or Dutch aside, surely there must be handsome clocks, chairs, and lamps being created beyond Helsinki, Milan, and Rotterdam.

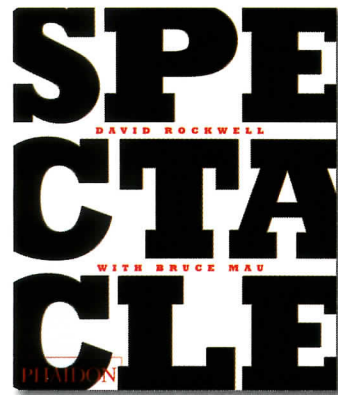
The book's abundant illustrations are seductive, but offer few real surprises. The selections, too, reflect the biases of the authors. Alfa Romeo, BMW, Ferrari, Citroën, and even Volvo get billing, but not Bugatti, Chrysler, or Cord. Eero Saarinen and Walter Gropius get one page each, Michael Graves and Eileen Gray get two. Pioneers Charles Rennie Mackintosh and

Josef Hoffmann are included, but not Eliel Saarinen.

The A-Z of Modern Design raises some fundamental questions. For example, why do we fawn over Raymond Loewy's locomotive-inspired pencil sharpener but never his buildings? Why do we divorce the furniture of architects, such as Aalto or Wright, from their intended settings? Would it be unflattering to Frank Gehry's recent blockbuster buildings to furnish them with his modest early cardboard chairs? *W.M.*

Spectacle, by David Rockwell and Bruce Mau. New York: Phaidon Press, 2006, 256 pages, \$50.

Spectacle is itself a spectacle, a beautifully photographed, smartly designed bit of entertainment. Compared to many other spectacles that art publishers have put out in recent years, this 9-by-8-inch volume is modest in scale. But it does succeed as a splendid



digest of some 20 perennial festivals around the globe while providing their cultural, historical, and political contexts.

Above all, authors David Rockwell and Bruce Mau seem intent on having a good time: They shuttle from the Brussels Flower Carpet to the Macy's Thanksgiving Day Parade to the Florentine *calcio storico*, dousing the reader with relevant statistics and background information as they go along. They

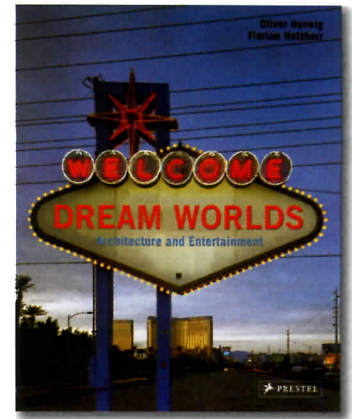
even include a 20-page calendar by way of an appendix, featuring an additional 100 days of hooplas and where to find them. It's fine to run fast and loose like this, but some things go by the boards; it's sad to see Guy Debord, who had written the book on the subject, relegated to a sidebar. And why, oh why, does the flag of the Soviet Union appear among the listed participants at London's Crystal Palace exhibition of 1851?

When architect José Luis Sert, historian Sigfried Giedion, and artist Fernand Léger produced their *Nine Points on Monumentality* in 1943, they imagined a new sort of spectacle, something graceful, spontaneous, modern, and democratic—an antidote to the slavish mass psychology of Fascist spectacle. Rockwell and Mau do not exactly abandon the cause, nor do they glory in the Nuremberg Rallies, but they do take the broadest possible view of their theme, without too much moral hand wringing. As befits our historical moment, this is spectacle in all its contradictions and ambiguities, a big brash Saturnalia for the world masses. With an afterword by Herbert Muschamp in the role of Funzo the Globetrotting Clown. *Ian Volner*

Dream Worlds: Architecture and Entertainment, by Oliver Herwig and photographs by Florian Holzherr, Munich: Prestel Verlag/Publishing, 2006, 157 pages, \$50.

Oliver Herwig's *Dream Worlds: Architecture and Entertainment* is nothing a good editor couldn't whip into shape. As it is, this richly illustrated book is a landslide of information, poorly organized, often redundant, and at times, confusing. Herwig repeats a number of points, especially that dream worlds are now the new reality, brought into existence through technology.

Nevertheless, the book is a resource for those interested in knowing how Paolo Soleri's ideal city of Acrosanti might stack up against Disney's Celebration, or how Coney



Island and Munich's Oktoberfest are (not-so) distant cousins. *Dream Worlds* convinces us that artifice is the allure that attracts people to such different diversions as Las Vegas and the Mall of America. The book also provides historic background for modern-day fantasy environments, citing Shangri-La, Atlantis, the Roman Coliseum, Sir Thomas More's *Utopia*, Paris's 1900 World Exposition, and many others. Herwig sees architecture as crucial to these places. "In the name of progress, architects emerged as the creators of new societies," he writes.

Through copious detail, the author hammers home his thesis: themed environments and fantasy worlds substitute for rather than imitate reality and are replacing the need or desire for cities. He ignores the recent revival of cities and fails to back his ideas with supporting documentation. Also, it is curious that he cites Michael Graves and Robert Stern as creating artifice at Celebration while ignoring Brasilia, no less an artificial creation. While the author is critical of how dream worlds control and manipulate us, in the end, he seems to throw his hands in the air, as though artifice and our addiction to it were an irremediable fait accompli. *Mason Riddle*

Good leadership helps practice, the profession, and society

Practice Matters

By Andrew Pressman, AIA

"We're talking about somebody's life here. We can't decide it in five minutes ... We nine can't understand how you three are still so sure. Maybe you can tell us." — Henry Fonda as a juror in 12 Angry Men

With just two brief quotes from this 1957 film classic, Henry Fonda's character—an architect—begins to emerge as the leader of a group of men who are deciding a capital murder case. He is the lone dissenter initially but eventually is able to persuade the other 11 jurors to reexamine the evidence and acquit on the basis of reasonable doubt. His successful strategies for leading the group include encouraging equal and inclusive participation and taking time to deliberate slowly. He considers the various agendas of the other jurors carefully so he can understand their perspectives, profess persuasively, and then influence the outcome.

While participating in a group's decision about whether a person is guilty of a crime whose punishment would result in death is not a normal part of an architect's daily routine, and integrated practice teams not normally as unruly as that jury was, architects who are capable leaders hold great power. This is particularly evident today as new project-delivery methods, technology, and sustainability are

Contributing editor Andy Pressman, FAIA, is a practicing architect and the author of numerous books on practice. He resides in Washington, D.C.

transforming practice. It is useful to consider leadership in terms of scales of influence—from mentoring an intern, leading project teams, and directing community development to formulating national policy—all of which are essential to fulfilling our role as true professionals.

In college, architects learn how to think critically and go beyond the status quo to form meaningful new ideas. This training gives them the ability to see the big picture, reframe questions to see different perspectives, create innovative solutions to problems, attend to detail, manage and reconcile diverse and complex interests and relationships. Architects who lead effectively can leverage those assets to benefit their practice, the profession, and society.

Architects have the knowledge to address challenges such as those articulated by Rob Sheehan, Jr., academic director of Executive MBA and Executive Degree programs at the Smith School of Business at the University of Maryland: "What are the next strategic steps for our firm, where should our profession go, and what do we want our community to be like?" But how do architects mobilize people to act on that knowledge? Sheehan says, "Some see the question as, 'I know the right thing to do, now how can I learn how to interact with people so I can get them to do what I want them to do?'" Instead, Sheehan says the question



Henry Fonda plays an architect in the film *12 Angry Men*, the story of a jury deciding the fate of a man on trial for murder. Initially, his is the sole vote against a conviction.

should be, "I have some thoughts about what we should do; how can I effectively share my insights and what I care about with others while also authentically listening to their insights?" This suggests an attitude about leadership, one that requires, according to Sheehan, enough wisdom to know that someone else may have an even better idea.

Leading a practice

Ambassador Richard Swett, FAIA, author of *Leadership by Design* (2005), says, "Leadership is an essential skill that enables the architect to convincingly convey his or her vision to the client while imparting a sense of discipline, confidence, and concern for a high-quality outcome." A firm's leader will motivate others to follow and implement the vision with enthusiasm, says Swett, affirming conventional wisdom.

Insightful leadership can help firms gain a competitive advantage. Lately, nearly every firm has eyed the cultural changes that firms must undertake to transition to an integrated project delivery model successfully. Phil Bernstein, FAIA, vice president of AEC Industry Strategy and Relations at Autodesk, suggests such major shifts in the way firms work must begin with an acknowledgment that there are no easy answers in times of intensive innovation and redefinition of practice. He says, "Principals must have the courage to articulate a philosophy of practice that is consistent with their values as designers that reflects the new realities of an integrated approach: That design thinking now expands to include a much more holistic view of solving the owner's problem than just design intent."

Practice Matters

Bernstein says that supporting experimentation "on the front lines" is one leadership strategy for firm principals to "find the best avenues to success in integrated projects." Andrea Leers, FAIA, principal of Leers Weinzapfel Associates Architects, the AIA's Firm of the Year for 2007, agrees with Bernstein to the extent that her staff is encouraged to push beyond the firm's "present views." The entire studio is engaged in frequent design and process discussions, specifically about new technologies and project management. Leers says transparency and access of the staff to leadership are important parts of creating an environment that supports the firm's vision and mission.

Cultivating leadership from the ranks is another way to keep staff happy and challenged and sustain a firm's well-being for the long-term. Leers' firm achieves this by rotating administrative tasks among associates so that all have experienced most responsibilities, and gained an understanding of what it takes to run a practice in its totality.

Ongoing and frequent dialogue not only fosters collegiality and a collaborative spirit but can also stimulate innovation. Jim Oswald, a senior associate and senior business strategist within Gensler Consulting, shares Leers's perspective with regard to engaging staff to ensure their commitment to advancing the firm's goals: "Informal discussions held in staff meetings, individual coaching sessions, and conversations around the water cooler about the firm's strategic purpose and direction all help to strengthen staff's grasp of the 'why we do what we do' and proactively engage them in 'living' the firm's vision and goals through their work."

Exposing staff at all levels in the firm to clients as often as possible can be an effective approach to leading teams. William Rawn, FAIA,

founding principal of William Rawn Associates in Boston, uses this approach. "This is a powerful way for staff to understand client and consultant goals, and why the principals are leading a project in a certain fashion. If they hear it directly from the client, they are truly invested in the project, which facilitates collaboration and a sense of control." The essence of Rawn's transparent leadership style is to engage the office with clients and consultants to impart the values—and reap the rewards—of teamwork. One of the firm's goals is to develop among all staff members the ability to listen intently to clients from the very start when they express what they need their project to do for them. Rawn believes engagement and inclusion translate into employee satisfaction and make his firm an interesting place to work. This is noteworthy in the context of today's tight labor pool, where retaining employees who are members of a talented, creative workforce presents special challenges.

Leading the profession

Doing and advocating excellent design, however broadly "excellent" is defined, is one key to leading change within the profession. According to Kate Schwennsen, FAIA, associate dean of the College of Design at Iowa State University, "Architects need sophisticated tools, compelling evidence, and accessible knowledge to do good work and thus to lead." So creation of knowledge and its wide dissemination should be distinct goals of leadership in the profession.

A key to leading change is to embrace the differences between architects and other professional disciplines, such as mechanical or structural engineers, who are typically joining teams early under the integrated practice model. Bernstein argues that this approach serves professionals well when arriving at innovative solutions to very complex



By the film's end, the architect's skill at leading the group has persuaded it to acquit the accused.

problems facing the profession, such as implementing integrated practice. At the same time, he makes a plea that the profession speak with a unified voice in order for progress to occur in creating a new model of practice.

Schwennsen calls for leaders—citizen architects, both individually and collectively—to become engaged in local and national political discussions. For example, architects can serve on planning or nonprofit community-development boards, as elected officials, or volunteer for profession-related groups such as Habitat for Humanity and Main Street. In addition to contributing to the debate, architects in these roles are invaluable in translating ideas into diagrams and images so that people can understand them. Hot profession-wide topics on which architects can substantively add to the discourse include green building standards, urban planning, diversity, campaigns for new bond levies, historic preservation, and housing and building codes, to name a few.

Serving the public

Architects can have an impact on society by transcending disciplinary boundaries and bringing their expertise and spirit toward becom-

ing a constructive presence in our community and beyond. A striking example of leadership in this realm, that of forging activist alliances in political and public-policy worlds, is the establishment of the environmental advocacy group Architecture 2030, by Santa Fe architect Edward Mazria (www.architecture2030.org). Since 2003, the organization has had a profound international impact on educating architects and the public about the role of the building sector on global warming. It is responsible

for influencing the AIA's sustainability initiatives as well as energy policy for federal buildings, states, and cities around the country.

Architects can also take leadership roles in their communities by seeking and engaging worthy local projects for people or groups who might not otherwise afford architectural services—and really need them. Leading a pro bono initiative [see RECORD, August 2007, page 63] involves a passion for social or environmental issues and a deep commitment to making a difference in the world. Two groups dedicated to helping architects and firms plug into these types of projects and, as John Cary, executive director of Public Architecture, proclaims, "Develop a more pronounced culture of pro bono service within the profession," are The 1% Solution and Architecture for Humanity.

Numerous surveys indicate that architects are highly respected in our culture. Maybe that aura is what made Henry Fonda's juror so influential. Regardless, it could translate into enormous potential for reaching a wide audience that may not always be receptive. Inspired and dynamic leaders listen well, articulate their vision, motivate, think critically and creatively, reflect, prioritize, and then act. ■

MoMA winds a curving path through 40 years of Serra's work

Exhibitions

By Sara Hart

Richard Serra Sculpture: Forty Years. Curated by Kynaston McShine and Lynne Cooke. At MoMA, New York City, June 3–September 10, 2007.

When the late Kirk Varnedoe, the Museum of Modern Art (MoMA)'s chief painting and sculpture curator from 1988 until 2001, stipulated that the second-floor galleries in the museum's new wing be engineered to support large, heavy sculptures, it seems he had the massive Cor-Ten steel work of American sculptor Richard Serra in mind. Although Varnedoe did not live to see the completion of the new building, designed by Yoshio Taniguchi [RECORD, January 2005, page 94], his foresight made MoMA's extensive and exhaustively documented retrospective of Serra's work possible. The exhibition includes three recent commissions, completed last year, each weighing between 100 and 200 tons, created specifically for that second-floor gallery. A 40-foot-long door on the exterior, facing a vacant lot, allowed cranes to lift the three works—*Band*, *Sequence*, and *Torqued Torus Inversion*—into the 20,000-square-foot space. Under the sculptor's supervision, a team of riggers wielding sleds, jacks, dollies, and a gantry then pushed and pulled the segments into position.

Serra singles out *Band* as a new direction for his work. The 15-foot-tall steel wall curves in and out along a route of 75 feet, creating four unique cavities along the way. There is no prescribed beginning or end and no repetition. One can

seemingly follow the meandering path indefinitely. He explains in a video on the MoMA Web site, "*Band* is not about teaching you anything; it's about private participation."

The haunting trio of new sculptures alone is worth the trip. Since this is a retrospective, however, the journey to *Band* is chronicled with 24 other pieces, beginning in the mid-1960s, when the artist experimented with a range of industrial materials. Vulcanized rubber, neon tubes, and rough fiberglass panels hang heavily from hooks, lean against the walls, or pile informally on the gallery floors.

If Serra's work conveys a sense of danger—and many people feel it does—it can be found in a series called *Prop Pieces*. One of these works, *House of Cards (One Ton Prop)* (1969), consists of four lead plates, each 4 feet square and 1 inch thick, leaning against each other to form a loosely closed box. Weighing in at 1 ton and visibly not secured, the piece creates the anxiety that, as its name suggests, accompanies the anticipation of collapse. A minor vibration, it seems, could bring the plates crashing down. But once you get the conceit about the mechanics of weight and gravity "propping" these sculptures in place, there's little else to think about. They come across as Minimalist one-liners. Though most of these precariously positioned, heavy-metal investigations, like the later tilting and torquing sculptures, are entirely self-supporting, their placement in the show, tucked away on the sixth floor, makes it hard to



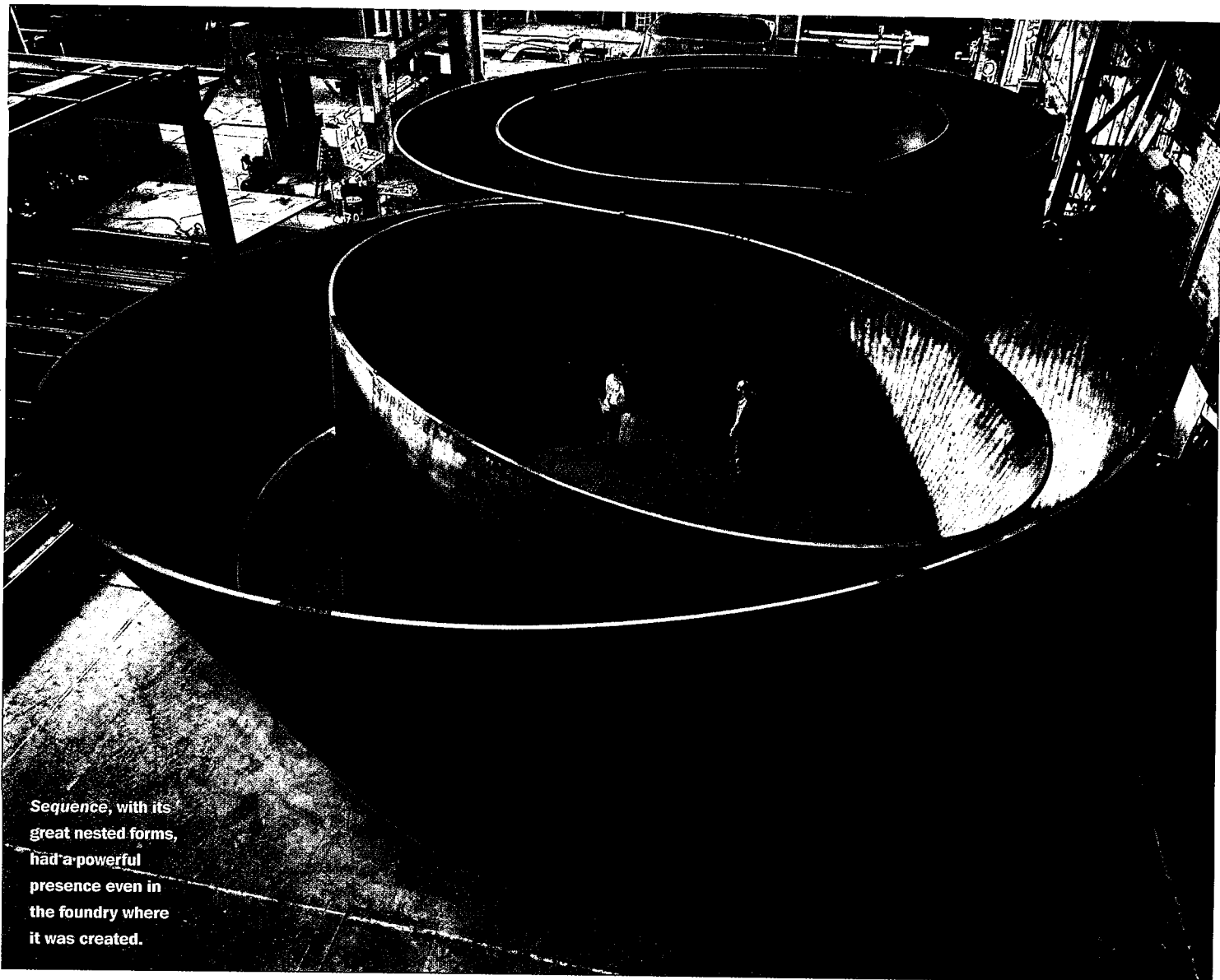
In MoMA's garden, *Intersection II*, made of 13-foot-tall plates, produces canyons among four identical conical sections, two tilting inward and two outward.

connect them conceptually to the monumental Cor-Ten steel pieces that evolved from them.

With steel, Serra captures spaces that challenge perception—processional ways designed, unlike architecture, for journeys without destination. Each environment is an

end unto itself. Two large Cor-Ten works from the museum's collection, which currently occupy much of the sculpture garden, are prime examples, inviting viewers to walk in and around them, experiencing the spatial qualities in direct and personal ways. *Torqued Ellipse IV* (1999)

Exhibitions



Sequence, with its great nested forms, had a powerful presence even in the foundry where it was created.

twists and tilts outward from the center, its continuous metal surface forming one ellipse at the base and a rotated one at the top edge. Nearby, *Intersection II* (1992–93), made of thick, 13-foot-tall plates, produces canyons among four identical conical sections, two tilting inward and two outward.

In Serra's view, steel is a material with limitless inherent potential—not a medium for visual metaphors, but structure for creating spaces and inspiring movement within them. In a BBC interview a few years ago, he described the way certain other artists who worked with

steel, such as Picasso and Calder, "cut it and folded it and pictorialized it, so that [it occupied] ... space in a way false to its gravitational load."

Serra's use of steel and the monumentality of his forms have generated constant analogies with architecture. Some critics have spoken in the same breath of the architectural characteristics of his sculptures and the sculptural attributes of Frank Gehry's architecture. Both men know a lot about torque, but Serra rejects outright any analogy between his work and architecture. He has argued that architecture, constrained by function-

ality, exists through watered-down ideas that become "scenography." While characterizing architectural design as additive and utilitarian, he describes his own pieces as "purposefully useless."

There's been chatter about a rift between Serra and Gehry. It's true, this sculptor doesn't much care for the vast "shed," as he calls it, that Gehry built in Bilbao, where a permanent exhibition of Serra sculptures opened in 2005. The gripe may not be with any particular architect, but with what the artist sees as a disturbing trend in museum architecture toward idio-

syncratic spaces that overwhelm and undermine the art. As he defiantly asserted in a 2001 interview: "Architecture is not art."

This art exhibition, which will not travel due to the size and weight of the pieces, has been elaborately documented in a 420-page, fully illustrated monograph. The publication includes an interview with Serra by Kynston McShine, one of the show's organizers and MoMA's chief curator at large, as well as essays by exhibition co-organizer Lynne Cooke, curator at the Dia Foundation in New York. ■

Trade Show Review Chicago • NeoCon

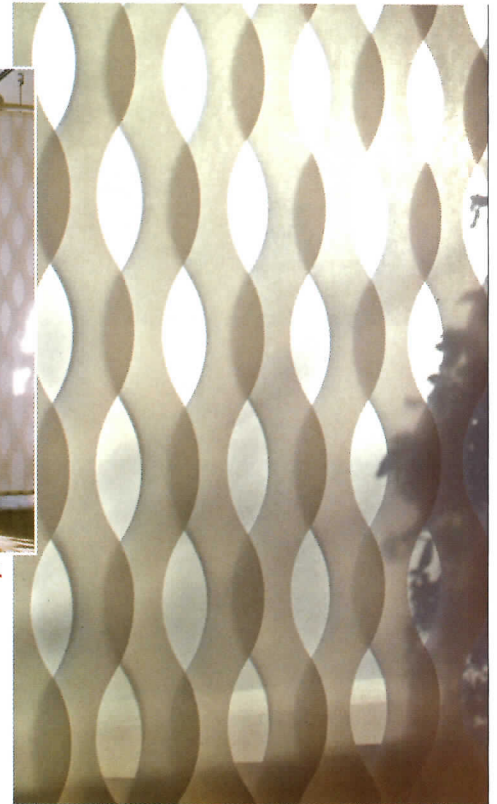
For the first time in NeoCon's history, a lighting fixture took home the Best of NeoCon Award. The slim Brazo LED task light beat out 426 other entries, an indication of the growing importance of the adjustability, sustainability, and ultimately, the health of our personal work spaces. *Eileen Ragsdale*

1 Silent bliss Swedish designer Eva Marmbrandt dreamed up three sinuous designs for Silent Gliss's vertical blinds systems. The Vertical Waves series offers three fresh patterns for laser-cut vanes that overlap in luscious undulating layers of light and shadow. Vanes are available exclusively in 14 colors of Visiotex polyester fabric. Silent Gliss USA, Norcross, Va. www.silentgliss-usa.com **CIRCLE 200**

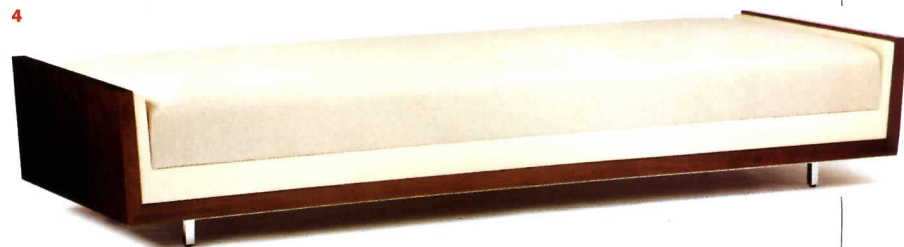
2 Bravo Brazo! Luminous on many points, Pablo Design's LED desk lamp beams with clever design, precise details, and sustainable advantages. Brazo is the first desk lamp designed with focus control and full dim control of a linear band of light. Calibrated light spread is adjusted by rotating a glass tube sheathed in the slim, aluminum, multiadjustable arm. Haworth, Holland, Mich. www.haworth.com **CIRCLE 201**

3 Plush planes Complex yarn-twisting techniques are Suzanne Tick's latest weaving wonder. Her Bas Relief series for Monterey has taken broadloom to new heights. The soft sculptural volumes of extra large, twisted, airy yarn loops yield underfoot but spring back into lofty place as the highest relief offered in a contract carpet. Tandus, Dalton, Ga. www.tandus.com **CIRCLE 202**

4 Right from any angle Refined geometry shaped Lauren Rottet's collection for Decca with precise details, calculated angles, and edgy material applications. The LR CT100 coffee table (top) applies origami to wood slabs with corner folds elevating it to a nearly floating table. The LR BE600 bench (bottom) boasts simple lines with wood panels perched proud of its seat. Decca Contract Furniture, Dallas. www.deccacontract.com **CIRCLE 203**

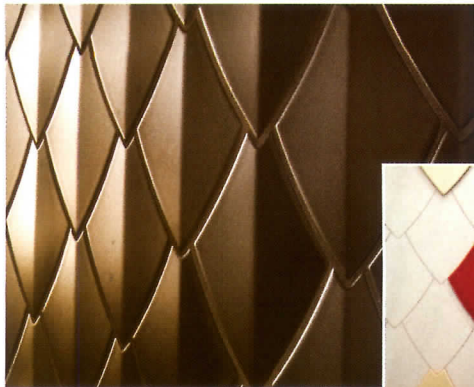


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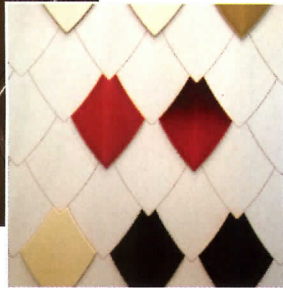


Eileen Ragsdale is resource librarian at TPG Architecture in New York City and president of the Resource Directors Association. She served as a Best of NeoCon return juror this year.

Trade Show Review Chicago • NeoCon



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5 Scale the wall Turkish designer Can Yalman interprets organic snake skin patterns in manually pressed, rhombus-shaped tiles from the Reptile collection's Snake series. Single 6.3" x 7.9" ceramic "scales" come in 15 color options. Century Tile Distributors, Lombard, Ill. www.century-tile.com **CIRCLE 204**

6 Crystal clear persuasion Alison Berger Glassworks' Lantern pendant shines brightly despite its mere 25 watts. Crafted of mouth-blown leaded crystal, a narrow wine-glass shape emerges from within a wide cocktail-glass shape. Holly Hunt Collection, Chicago. www.hollyhunt.com **CIRCLE 205**

7 Switch the flip As viewing angles change, so do the subtle patterns of the Flip fabric collection. The Zez weaving technology is available exclusively through Steelcase. Steelcase, Grand Rapids, Mich. www.steelcase.com **CIRCLE 206**

8 Light as a feather Next is a new generation of height-adjustable tables, with lighter scale, advanced motion control, independent legs, and ergonomic advancements. The elimination of rails allows flexibility and ample leg room. Baker Manufacturing, Pineville, La. www.bakermanufacturing.com **CIRCLE 207**

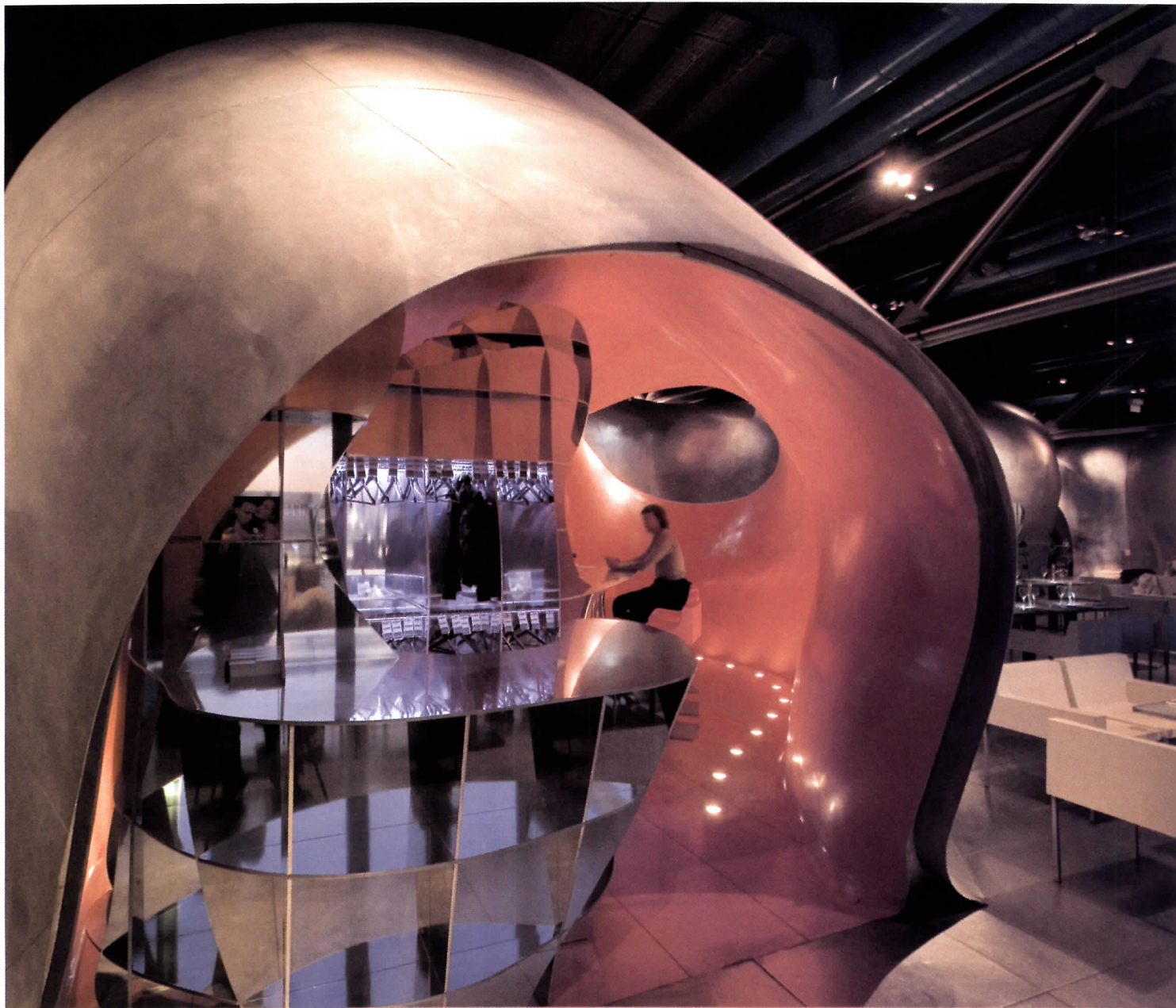
9 Reign of the planes Seamless expanses of glass, wood, and solid surfacing free of visible hardware render the Uffizi casegood collection a sleek and functional office furniture system. Features include file pedestals disguised as cabinet doors, cantilevered shelves, and magnetic panels of wood veneer or back-painted glass. Tuohy, Chatfield, Minn. www.tuohyfurniture.com **CIRCLE 208**

10 Grass fed Composed of high Kenaf fiber content and backed with recycled paper pulp, Organics biodegradable, recyclable wall covering is hardy enough for commercial interiors. Eight designs are coated with PLA derived from renewable resources. Wolf Gordon, New York City. www.wolf-gordon.com **CIRCLE 209**

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Snapshot

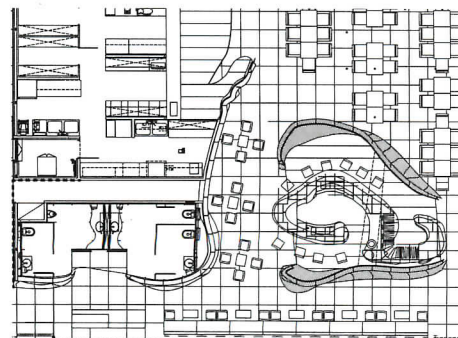


Raising glasses to *la vie en rose*

By Beth Broome

Pink Bar in Paris, a diminutive meeting place with a big personality, is a project within a project within a project. Here, architects Jakob + MacFarlane have staged an intervention inside the restaurant they designed a decade ago as a larger intervention at the top of Richard Rogers's and Renzo Piano's iconic Pompidou Centre.

In 1997, Dominique Jakob and Brendan MacFarlane won a competition to design a restaurant [RECORD, September 2000, page 128] to replace the Pompidou's cafeteria, as part of the museum's extensive, two-year renovation. The young, Paris-based architects were understandably intimidated by the weighty charge, but hardly scared off. Not permitted to touch the trademark ceiling or the walls, the team focused on the 31-inch-square floor grid, the smallest unit of the center's larger matrix.

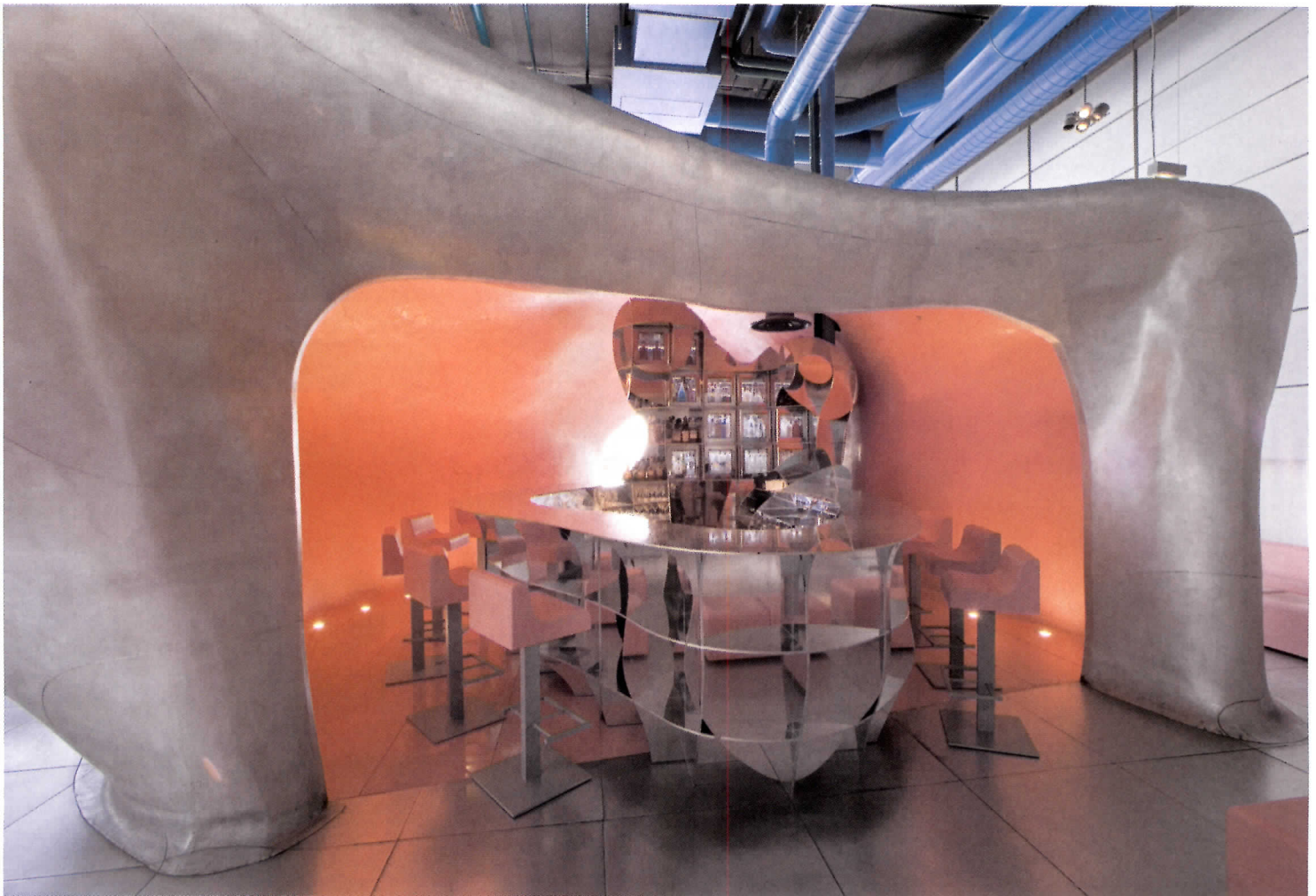


Snapshot

Playing against the building's orthogonal lines, they placed on the grid four organically shaped, aluminum-clad volumes—including the kitchen, coat check/bathroom, and VIP lounge—each lined in vibrantly colored rubber. Named Georges (after Pompidou), the restaurant quickly established itself on the city's roster of hot spots.

In 2006, Jakob + MacFarlane was again approached, this time with the challenge of converting the restroom volume into a bar. The architects were enthusiastic, but again had hesitations. Reflecting on the museum's call for an entirely new architecture in the original restaurant commission, the partners now questioned their role. "Was it right that we come in and do a second take on our own project?" asked MacFarlane. "Or would it be more interesting to have someone else do it?" In the end, the pair embraced the job (which included adding dining-room seating and relocating the toilets) as an opportunity for a rebirth within one of their own works.

Small, ice-cube-traylike refrigerators housing a variety of liquor bottles recall automats and, from a distance, give the illusion of TV monitors.



For the Pink Bar, the architects again used the museum's grid, says MacFarlane, "as a geometrical basis for a dialogue between the existing architectural context and the new project." Within the volume's aluminum shell, which Jakob + MacFarlane left unchanged, they inserted an S-shaped, buffed-aluminum bar that snakes around to create the cloakroom. The team replaced the lime-green interior with shocking-pink rubber, and carried the color over into the molded polyurethane bar stools and other seating, which they also designed, that spills out of the bar area. Floor lighting and LEDs under the bar and inside the refrigerators bring a glow to the lively but intimate space.

Giving diners a place to eat lighter fare in a more private setting, Pink Bar, which opened last spring, fills its role as a parallel restaurant to Georges and, in its own small, otherworldly way, inhabits the grid of the Pompidou's great meta structure. ■

architect as DEVELOPER

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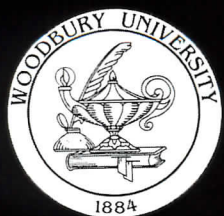
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By John Gendall

As Gregor Samsa awoke one morning from uneasy dreams, he found himself transformed in his bed into a gigantic insect." So begins Franz Kafka's *Metamorphosis*, the famous 1915 novel in which an adolescent boy is mysteriously transformed into a bug. Last July, a Civil War-era fort in Boston awoke to find itself transformed into an evocative gallery for a luminous, sinuous acrylic object, twisting through it. And earlier this year in Lisbon, a stringently Cartesian exhibition hall by Alvaro Siza turned soft, dripping with stalactites of supple fabric. These metamorphoses are temporary installations—small structures that use the spatial, structural, and conceptual tools of architecture and engineering, but lack specific program. Though some installations are outdoors, the projects shown here inhabit interiors, dramatically transmuting the spaces that contain them. And unlike the irreversible metamorphosis of Gregor, who died a beetle, such work is all, sooner or later, dismantled, returning the rooms to their original state.

At the 19th-century fort, the installation, by Office dA, not only transforms the place's spatial qualities, but also, temporarily, its meaning. Fort Warren, a stone structure on Georges Island in Boston Harbor, was built in the mid-1800s as protection from naval attacks and a prisoner-of-war camp. Since its decommission in 1947, it has stood as a reminder of war. But walk into the small, dimly lit powder magazine today, and you'll find no trace of conflict or the military. Until October 8, it will house *Voromuro*, an installation with an expressive yet delicate sense of movement and fluidity that springs to life within its austere surroundings.

Without touching the enclosure, Office dA completely altered the 1,800-square-foot room by inserting a single object that curves, stretches, and vaults through it. Based on a Voronoi mathematical diagram, the piece is composed of variously sized and shaped acrylic panels, riveted together to create coffers. The structure allows the form to morph across space, its undulant wall gradually becoming a vaulted dome.

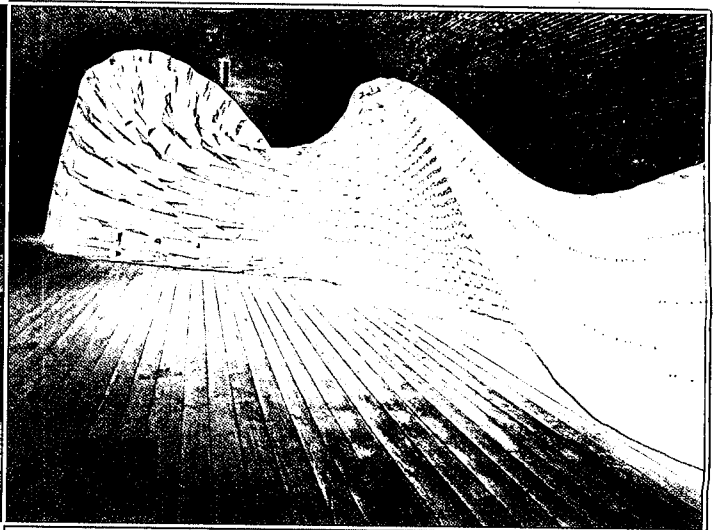
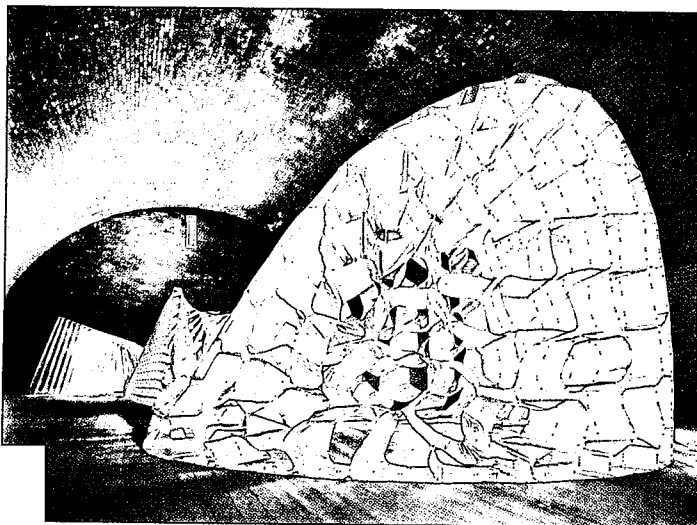
In this dark interior, visitors' eyes must adjust to the light level, a slow process that heightens sensory awareness. Lit only by

John Gendall is a New York-based architectural writer.

Spatial Mutations

VOROMURO (2007),
by Office dA

Based on a Voronoi mathematical diagram, variously shaped and sized translucent acrylic panels are riveted together to form coffers.

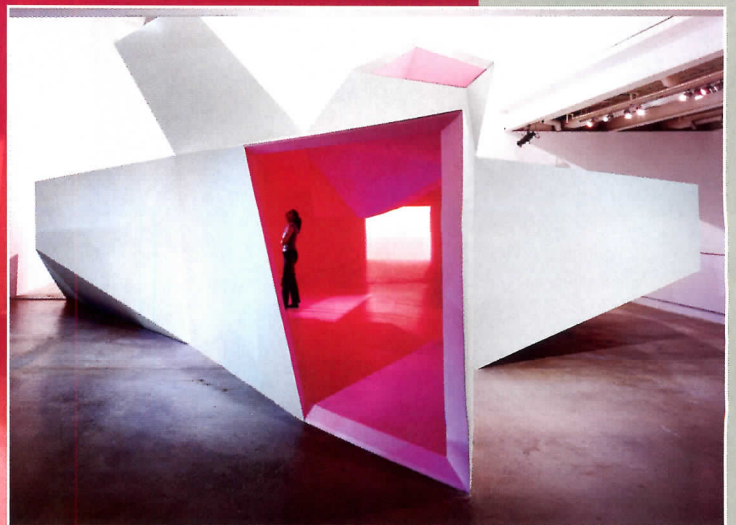






HOLIDAY HOME
(2006), by UNStudio

Calling into question the very notion of a holiday home, the piece is an extended, extruded, and otherwise mutated gabled form. Its pink lacquered interior conveys an intended sense of otherness.





H_EDGE (2006),
by Cecil Balmond
with Arup Advanced
Geometry Unit

Made of steel chain and
aluminum plates, *h_edge*
is freestanding and
self-supporting with its
chains, remarkably,
“standing” in tension.





daylight filtering through two doorways, the installation achieves luminosity through the material's translucency. Stunningly, the project finds serenity in a former prison camp. Without being political, the piece temporarily strips the room of that meaning, reterritorializing it as a beautiful architectural experience.

The practice of creating temporary spatial interventions gained traction in the 1970s, when architectural theory was arguably at its zenith. Notably, in that era, John Hejduk made his most celebrated architectural works—*Vladivostok*, the *Masques*, and *Victims*—indistinguishable from installations.

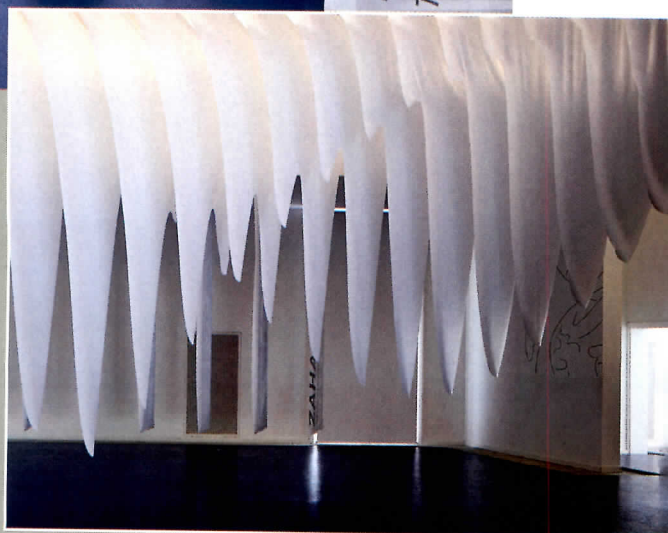
Other such investigations continue. Last year, UNStudio installed an inhabitable object called *Holiday Home* inside Philadelphia's Institute of Contemporary Art. The piece evolved from the architects' theoretical inquiry, calling into question the very notion of a holiday home. Beginning with a gabled form, they extended and extruded it, generating an object with expressive openings. The mutated volume had a lacquered pink interior (in contrast to the white exterior), emphasizing the difference between its inner realm and the surroundings. Like a vacation getaway, the piece conveyed a sense of otherness, removing it tectonically and experientially from the rest of the gallery.

Installations, of course, are not a mere license for cerebral theorizing. Many have a real, pragmatic purpose, allowing architects and engineers to investigate such matters as structure, materials, form, and fabrication. Office dA used *Voromuro* in part to research the firm's design for Villa Moda, an upcoming mixed-use project in Kuwait. Though much larger in scale, the villa's coffered structural system relates to the installation's. With both projects, the Voronoi formulation generates an expressive topology, absorbing differences among individual, constituent parts to create a continuous condition.

In a similar vein, structural engineer Cecil Balmond, with the Arup Advanced Geometry Unit, converted Artists Space, a Manhattan gallery, into a grand structural experiment, called *h_edge*. With 5,000 feet of stainless-steel chain and 5,200 small aluminum plates, laser-cut into X shapes, the project translated a binary system from engineering into positive and negative spaces, creating geometric enclosure within the gallery. Ingeniously, the chains, acting in tension with the plates, formed reciprocal load paths, allowing the freestanding, filigreed installation to support itself. With its chains standing vertically, *h_edge* recalled the Indian Rope Trick, where magicians make cords stand on end.

In some installations, relatively simple gestures heighten spatial attunement, producing overwhelming effects. At the 2007 Lisbon Architecture Triennale, Zaha Hadid turned white polyethylene canvas into a luminous, inverted landscape, a quasi-glacial passage, suspended from the ceiling of Siza's Portuguese Pavilion. The intervention effectively dismantled the purely orthogonal space, reconstituting it with soft fluidity.

Whatever the underlying intentions or spatial outcomes, installations bring a compelling element of time to architects and engineers' concerns with the physicality of space. These projects are architectural, yet ephemeral. In their impermanence, paradoxically, they bring the enduring reality of architecture into focus. ■



LISBON TRIENNALE INSTALLATION (2007),

by Zaha Hadid

Within a stringently Cartesian space by Alvaro Siza, flaps of white polyethylene canvas become soft and luminous "stalactites."

Record Interiors

2007



PHOTOGRAPHY: © DAICI ANO (1, 3); FOTOWORKS/BENNY CHAN (2); BRUNO HELBLING (4); HISAO SUZUKI (5); ELIZABETH FELICELLA (6)

In this issue, where delicate, mostly white interiors prevail, lightness of hand takes many guises. And though our editors never come to *RECORD INTERIORS* with a preconceived theme, one often emerges, as it has this year: A pale yet nuanced palette characterizes all six of the issue's featured interiors, evoking serenity and, simultaneously, a sense of drama. Almost contradictory, this duality seems to suggest a contemporary desire for calm refuge—but not without a hint, however subtle, of excitement.

A play of animated against decisively neutral gestures is key to Jin's Global Standard, an eyeglass boutique near Tokyo. Here, a muted palette of off-white surfaces and the geometric lockstep of narrow parallel corridors give way to dynamic optical effects, befitting an optician's shop. Forced perspective, feats of illusory depth, reflections within reflections receding into infinity all color the experience of this unusual retail space.

But whiteness and dynamism take a different tone at Honda's Advanced Design Center, in California, where a glowing "cocoon" of milky, translucent acrylic, molded into streamlined curves, creates a calm, shielded work zone within a highly visible storefront. Heightening the form's implied momentum, its pearlescent skin shimmers with pale fluctuating casts of aqua, green, and purple.

Equally striking is the Alessi shop in New York City, where jagged light strips edge "folded" walls of palest blue. Within the interior's misty aura, these luminous bands become angular proscenium arches, placing at center stage the high-design objects for sale.

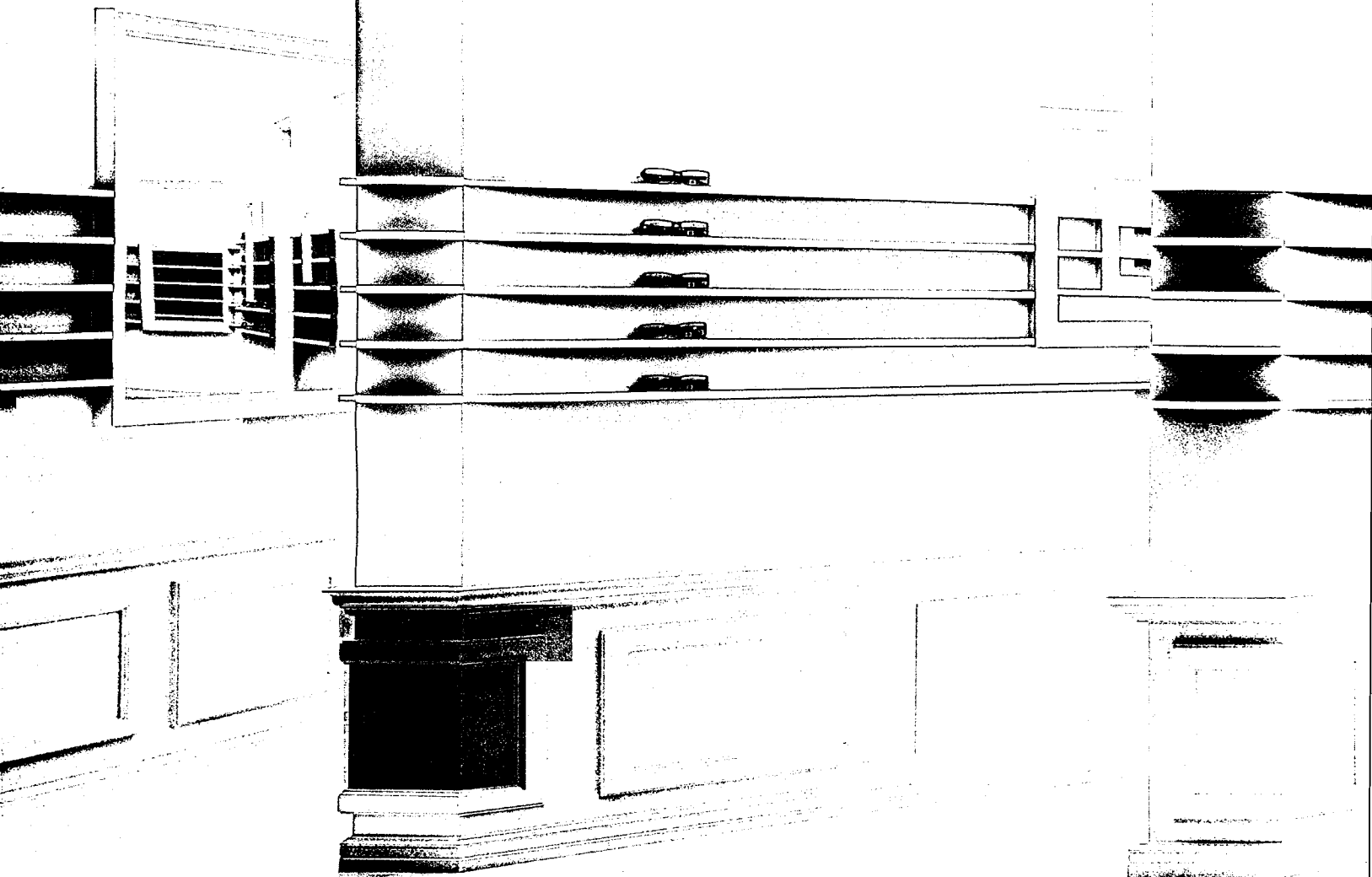
Just as sunlight passes through a piece of ice "appearing bright white in spots, but dark, almost blue, in others," as writer Diana Lind observes, Gus Wustemann's white-on-white Glacier Loft, in Switzerland, glows enigmatically with a subtle and varied luminosity.

And with even quieter serenity, veil-like screens of natural materials—delicate bamboo strips and glass with an aqueous, underwater quality—contribute to a poetic stillness at the Ginzan Onsen Fujiyan, a hot-springs hotel in Japan. While the drama here is low-key, it appears in the atrium's vertical expanse and in the way daylight filters into the baths, illuminating steamy fog or glinting off the water.

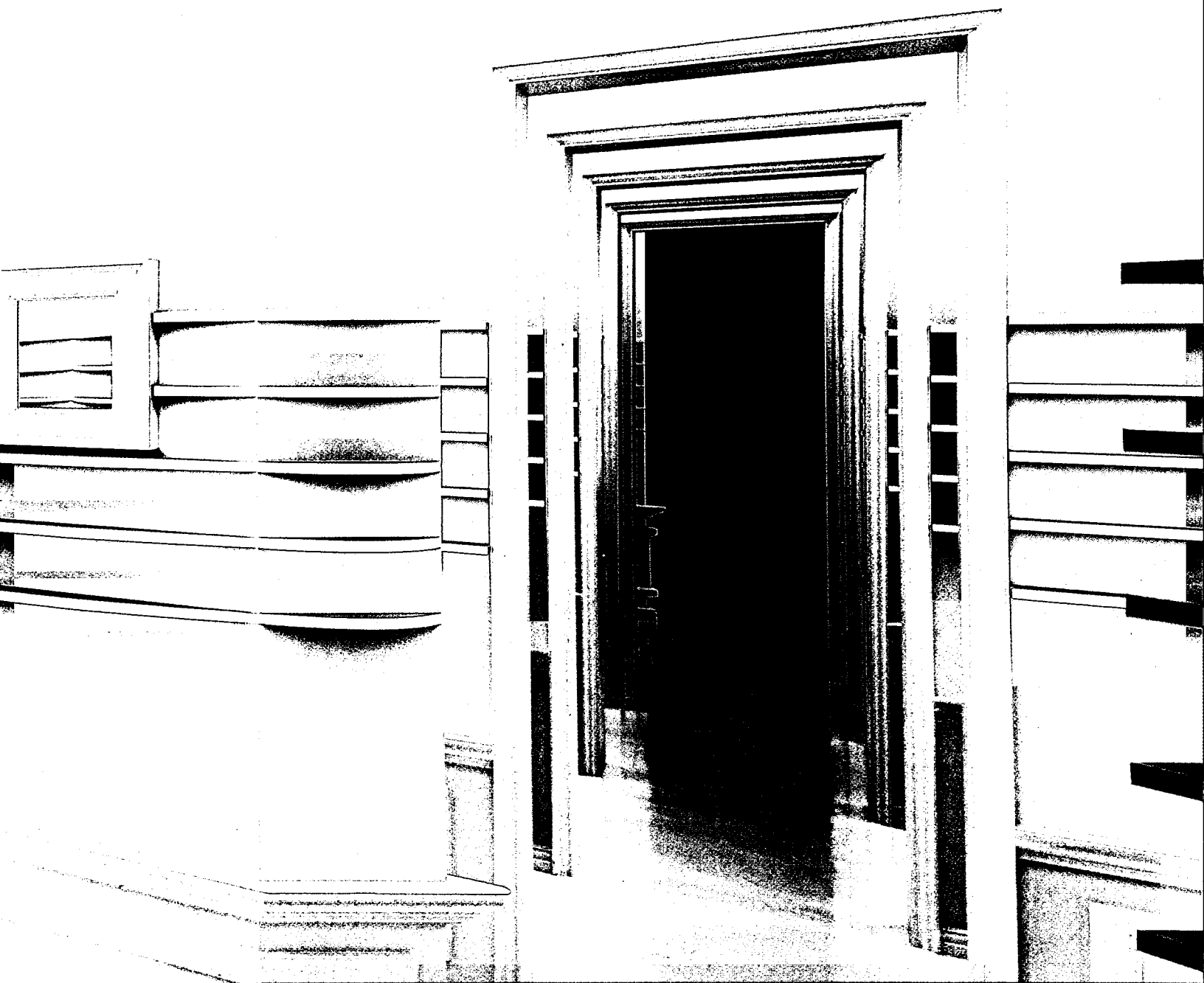
An ethereal atmosphere of mystery also permeates the Czech monastery of Novy Dvur, where Minimalist planes of smooth, white plaster virtually sculpt raw daylight. In the sanctuary, the effect is most potent, as the sun's rays enter through hidden skylights and emerge through the side walls of the nave's inner shell.

In the following pages, these six diverse projects gradually reveal themselves—all light-hued yet remarkable in their experiential intensity. *Sarah Amelar*

ONLINE: To rate these projects, and to access additional interiors, slide shows, architect portraits, and sources, go to architecturalrecord.com/interiors/.



Set inside a mall, the shop features parallel, open-ended corridors slicing across this corner space at a 45 degree angle. Narrow ledges display up to 1,500 pairs of eyeglasses that customers can freely try on. Closely spaced walls and numerous mirrors amplify the sense of multiplicity and spatial depth.



Even though Jin's Global Standard occupies a busy corner inside a shopping center near Tokyo, this eyeglass boutique looks nothing like your typical suburban mall shop. Without flashy signage, conventional display tables, or even open floor area, the store is a visual curiosity, distinguished by a series of 3-foot-wide, 11-foot-high corridors. Formed by freestanding parallel walls that slice across the interior at a 45 degree angle, these deep passages invite customers to slip in for a peek or simply take a shortcut through the shop. "Normally, you don't feel you can go in if you're not going to buy," explains its architect, Ryuji Nakamura. But here, the absence of doors—and the enticement of 1,500 pairs of glasses to try on—welcomes everyone.

The 1,076-square-foot store is the latest addition to Jin's Global chain, headed by a visionary Japanese businessman. Though he'd started out in bags and belts, his discovery of how inexpensively glasses could be fabricated in China gave him the idea of turning prescription eyewear into must-have accessories. The frames, designed by his staff in Japan and then manufactured in China, are fit with made-to-order lenses at each of his 20-plus boutiques for less than \$90 a pop (total)—and in under 30 minutes.

Here, production takes place in a narrow, L-shaped zone along the square space's two inner faces. Cleverly and compactly sequestered behind walls, one leg contains waiting and eye-exam areas, and the other lens-molding and service counters, where customers place and pay for their orders. The corridors stand evenly spaced between a triangular pillar at the cash register and an encased structural column bearing subtle signage at the shop's outermost corner. When the shop closes for the night, the employees simply pull down a cloth net (all the security needed here), instead of metal grilles or sliding-glass doors.

The boutique's well-ordered geometry yields some unexpected visual experiences and twists of perception. While it is impossible to lose sight of the mall through the corridors, these discrete, floor-to-ceiling, canyonlike slots (each outfitted with its own sprinklers and halogen light fixtures) are simultaneously open-ended and narrowly enclosing. Nakamura relieves that tension with a pair of perpendicular circulation routes that cut through the

walls with 2-foot-wide doorways. When viewed in perfect alignment, the openings appear to nest one inside the next, receding into space with amplified depth, reminiscent of a stage set—as striking from across the mall as from up close. Though this tunneling looks as if it could go on forever, it gently leads toward the cash register. Wall-mounted, rectangular mirrors compound the effect. Various sized and randomly arranged, these surfaces bounce reflections back and forth along the length of each corridor, sometimes capturing reflections within reflections within reflections.

Painted off-white, the freestanding, 8-inch-thick walls carry classicizing, wraparound molding at their tops, panels concealing storage cabinets at their bottoms, and five tiny shelves, each a mere 2-inches deep, in between. Mounted at or near eye-level, these ledges serve the essential function of openly displaying the current stock—amazingly, in Japan shoplifting is not a serious problem—but their purpose is as much decorative. "I think of them as a pattern," the architect explains. The horizontal stripes of wood enliven the walls' smooth surfaces while the rows of eyeglasses add color and texture.

"In Japan, we don't have a strong idea about decoration, but [I realized] it can change the feeling of architecture entirely," observes Nakamura, who cultivated his taste for adornment while working on Jun Aoki's ornate Roppongi Hills Louis Vuitton boutique. Following that project, Aoki introduced his protégé to the eyewear entrepreneur. Though the young architect only opened his office in 2004, he has already completed three other eyeglass-shop interiors for the same client and has another in process, each one unique. At the Tokyo boutique, Nakamura suspended the frames from metal rings attached to a fabric wall. And in Kyoto, he showcased them in insect-display cabinets imported from France.

The fast pace of these commissions comes as no surprise; this latest shop, with its clever scheme, took three months to design and a mere four weeks to build. Already the most profitable of the chain's outlets, it may well enjoy a long shelf life. But in Japan, where retail interiors typically last no more than five years, remodeling is as routine as getting new glasses. ■

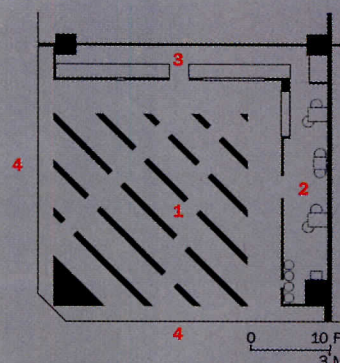
Naomi Pollock is RECORD's Tokyo-based correspondent.

For sources, go to page 142 or architecturalrecord.com/projects/.



Project: Jin's Global Standard, Nagareyama, Chiba, Japan
Architect: Ryuji Nakamura
Architects: Ryuji Nakamura, principal
Lighting: Ismi—Izumi Okayasu
General contractor: AIM Create

canyonlike slots (each outfitted with its own sprinklers and halogen light fixtures) are simultaneously open-ended and narrowly enclosing. Nakamura relieves that tension with a pair of perpendicular circulation routes that cut through the



1. Eyeglass selling floor
2. Eye exam area
3. Service counter
4. Mall passageway

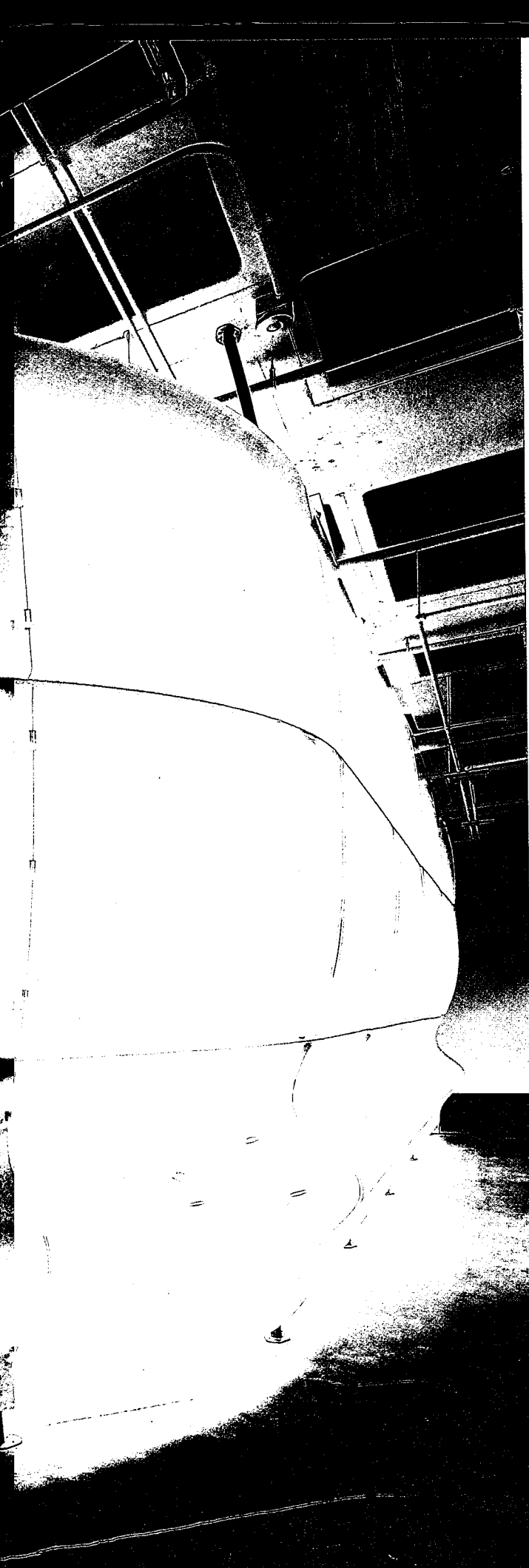


With acutely angled ends, the 8-inch-thick walls (above) create a forced perspective, aggrandizing their soaring appearance. The corridors' proportions—11 feet high and 3 feet wide—accentuate that effect. These slots of space are open-ended, enticing customers to slip in for a peek or a shortcut through the mall (opposite).

With high-speed, streamlined curves,
the late **George Yu** created a shimmering
work space for Honda's **ADVANCED
DESIGN CENTER**



The cocoon panels (above and left) have flanges that fit into brackets welded to the curvy steel poles rising from floor to ceiling.



By Sarah Amelar

Top-secret research is not usually hidden behind the bare, plate-glass windows of a corner storefront at the intersection of two busy shopping streets. But that's exactly where Honda, the automotive company, has inserted its new Advanced Design Center, a studio where scrupulously guarded concepts for future cars are born.

Before moving to this surprisingly exposed location in the Old Town area of Pasadena, California, the 10-person advanced-design team, an in-house R&D engine, had been buried deep in Honda's corporate campus some 25 miles down the freeway, in Torrance. "We definitely needed a cooler, more vibrant environment—right in the thick of a hot neighborhood—to inspire us," says Dave Marek, the company's chief auto designer for its R&D Americas division. The freedom to develop forward-thinking, even risky, ideas in a totally independent venue, where no other staff members could second-guess them, he suggests, also had real appeal.

Pasadena offered a lively creative scene within easy access to Honda headquarters; and just up the road from Old Town is the Art Center College of Design with its world-class automotive design school (where Marek studied and now teaches). Plus, the city already had a strong connection with Honda through the car company's longtime sponsorship of the Rose Bowl and Rose Parade there. But how to give the Advanced Design studio an intriguing yet stealthy presence—and even more crucial, how to keep the team's secret workings under wraps in such a curiously public spot?

Given the center's focus on innovation, the solution clearly had to be the architectural equivalent of the experimental car of the future. When Marek—openly unincorporate in his purple-tinted glasses, long ponytail, and backward baseball cap—met architect George Yu, he sensed an immediate creative kinship. Yu, who died of cancer this past July, had a history of rethinking conventional workplaces and exploring the possibilities of sometimes ordinary materials and cutting-edge, often digital, technologies, as with the Virgin Digital/Lost Boys studio, in Vancouver, where he and Jason King created sheer polyester window coverings embedded with light-responsive "memory coils" [RECORD, December 2000, page 100] and IBM's e-business center, in Chicago, where they integrated plasma screens and lenticular coatings into the interior furnishings [RECORD, September 2001, page 100].

When Yu toured Honda's Torrance facility early in the project, he was captivated by the computer-controlled milling machines on which designers make high-density foam, rapid-prototyping molds for full-scale car models. Excited by the prospect of borrowing this technology, he asked for permission to "play with" the equipment after-hours to create architectural components for the Pasadena studio. His concept was to insert into that 6,000-square-foot space, at the base of a 1904 building, an undulant "cocoon" of translucent acrylic. Since local ordinance prohibited storefront window coverings, the idea was to shield the 10 designers' workstations and model shop from street view, while filtering daylight into that inner realm.

With Honda's milling equipment and Rhino, a software used by car designers, he produced 12 different double, dense-foam molds for a total of 99 cocoon panels, each about 4-by-6 feet. Next, under high heat, UV-rated acrylic sheets were pressed onto the forms. Assembled on-site, three registers of panels fit onto bracketed stainless-steel poles that rise with gentle S-curves from the studio's polished concrete floor to its ceiling.

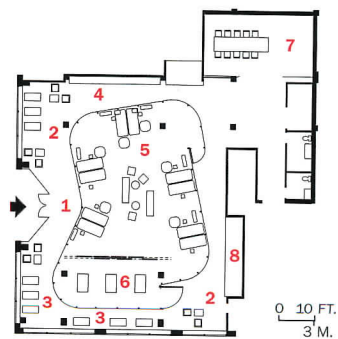
Forming a single discrete object, the acrylic stops short of both ceiling and ground planes.

The resulting structure evokes an auto body in its deep sheen and streamlined curves—streaking through space with

Project: *Honda Advanced Design Center, Pasadena, California*

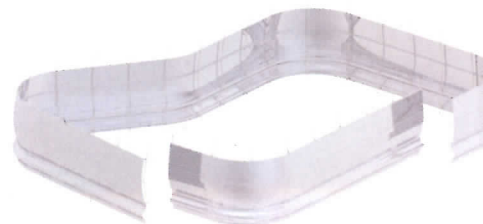
Architect: *George Yu Architects—George Yu, principal; Sandra Levesque, senior designer; Daniela Franz, Marius Eggli, design team*

PHOTOGRAPHY: © FOTOWORKS/BENNY CHAN



1. Lobby
2. Lounge
3. Gallery
4. Kitchen
5. Design studio
6. Model shop
7. Conference
8. Library/archive

The studio has a floor of polished concrete and a painted-white ceiling with exposed ducts (left and above). Textured, waterjet-cut felt (above, far right in photo) lines the conference room.



Openings into the cocoon are oriented to deny views in from the outside. This interior realm includes a model-milling area (top) and the design team's desks (bottom).



implied momentum—but this great stretch limo of a studio (and stretch is the operative word) is far curvier than any car on the road. Adding to the dynamism, Yu chose a pearlescent white acrylic that changes constantly with the light, taking on subtle purple, green, or aqua casts.

Around the cocoon, Yu created an enclosed meeting room, lined in waterjet-cut felt; a sleek, open kitchen along one wall; and free-form space for gallery displays (including models of nonconfidential car designs), visible from the street, and future lounges, or break-out zones from the studio.

The relationship between this interior realm and passersby remains a curious one. The cocoon looms larger than life, glowing from within at night, veering tantalizingly close to the plate glass, yet revealing only the moving shadows of its occupants. Except during the occasional party or reception in the break-out zones, the place is closed to the public. (And there was absolutely no exterior signage, no mention of Honda, until confused delivery workers convinced the studio to post a makeshift placard.) Showcased yet inaccessible, speeding yet stationary, the mysterious cocoon hovers. Quietly powerful as subliminal advertising, it remains an almost-open secret. ■



For sources, go to page 142 or architecturalrecord.com/projects/.

The entrance hall introduces visitors to the Minimalist aesthetic found throughout the inn. Kuma layered the grand space with a subtly tinted French-glass wall on the street side (right in photo) and, inside, a diaphanous screen of thin bamboo strips (left in photo).





Kengo **Kuma** wraps a hot springs hotel,
the **GINZAN ONSEN FUJIYA**, in screens
as exquisitely delicate as a cricket cage





Subtly lit treads suspended from the ceiling on steel rods give a stair connecting the top two floors a sense of floating in space (above). A 700-year-old French handblowing technique called *dalle de verre* was used to create part of the almost-transparent glass entry wall (left).

By Clifford A. Pearson

Just as gene splicing raises controversies in the field of biology, experiments in recombinant architecture pose both practical and philosophical dilemmas. In reconfiguring a 100-year-old *onsen* (hot spring hotel) in Japan's snow country, architect Kengo Kuma raises such issues, grafting modern elements onto historic roots and giving traditional design strategies contemporary interpretations. While strict preservationists may argue with his hybrid approach to history and construction, Kuma fuses eras in a manner that is simultaneously radical and subtle.

Nestled at the bottom of a narrow valley in Yamagata Prefecture on the main island of Honshu, the Ginzan Onsen Fujiya stands shoulder-to-shoulder with 13 other inns facing the Ginzan River. Although most of the buildings have been altered over time, they still form a historic ensemble with powerful appeal to tourists and television crews (the popular 1983 Japanese series *Oshin* was shot here). So breaking ranks with the scale or massing of its neighbors was out of the question.

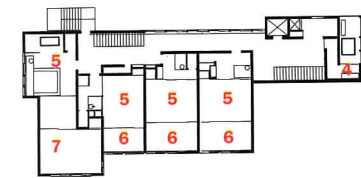
"We wanted to retain the continuity of the old facade while introducing a new spirit and modern amenities," explains Kuma. To do so, the architect took apart the existing building, then reassembled it using old and new wood members. He kept the original silhouette and traditional Japanese post-and-beam construction, but inserted larger, wood-framed windows and a new sliding glass entry wall. "The idea was to connect the street with the lobby inside," says Kuma. "So we established a new sense of transparency."

Recessed beneath sloping wooden eaves and set behind a pair of reflecting pools, the entry wall reveals a materiality that hints at the erabbling design within. Here, Kuma employed a centuries-old, hand-blown-glass technique from France called *dalle de verre*. The vitreous panels, set within a steel frame, create a slightly mottled, subtly stained greenish-blue surface that infuses the lobby with an almost aqueous character. And instead of welcoming guests into a low-ceiling reception space (as is customary in Japanese inns), he wows them with a two-story-high atrium furnished with modern tables, chairs, and sofas that he designed with a Zen-like simplicity of form.

Layering space with screens is a traditional Japanese device, but Kuma imbues it with an inventive spirit by choreographing a sequence of entry rooms divided by veil-like walls of remarkable materials. Beyond the gridded panes of *dalle de verre* comes a two-story-high partition of thin bamboo strips that reveals a scissor stair at the back of the building. Master craftsman Hideo Tanaka sliced 30,000 poles of bamboo from Oita Prefecture, on the island of Kyushu, into 1.2 million strips, each 4 millimeters wide, and attached them to sectional frames to create this ethereal divider and others throughout the hotel. The thin strips retain the idiosyncratic bumps and crooks of the original bamboo poles, establishing a sense of natural variation within their vertical repetition. They practically beg you to explore them with your fingers.

Material investigation—especially with buildings' skins—has informed much of Kuma's work over the years, from his Water/Glass Villa in Atami, Japan, where he created a poetic dialogue between reflective sur-

Fourteen *onsen* face the Ginzan River at the bottom of a narrow valley, creating a cherished historic ensemble (below).



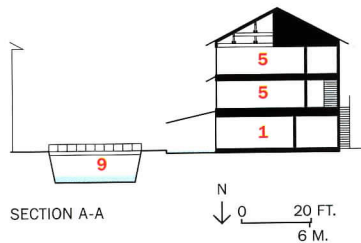
THIRD FLOOR



SECOND FLOOR



FIRST FLOOR



SECTION A-A
N
0 20 FT.
6 M.

1. Lobby/lounge
2. Café
3. Office/staff
4. Communal bath with dressing area
5. Guest room
6. Veranda
7. Dining
8. Kitchen
9. Ginzan River

Project: Ginzan Onsen Fujiya, Obanazawa, Japan
Architect: Kengo Kuma & Associates—Kengo Kuma, principal in charge; Makoto Shirahama, project

architect
Engineer: K. Nakata & Associates
Lighting designer: EPK
General contractor: Aiwa Construction



Daylight filters into one of the inn's communal baths (above), where minimally detailed wood elements quietly add to the relaxing aura. The same sensibility informs the guest rooms, including one of three large suites (above, right).

faces, to his Lotus House near Tokyo [RECORD, April 2006, page 98], where he subverted the weightiness of stone by creating a porous checkerboard of travertine plates suspended from stainless-steel bars. At the Fujiya *onsen*, Kuma has designed rooms with generous, modern proportions and wrapped them in traditional materials crafted the old-fashioned way. Just as Tanaka stripped and assembled the bamboo for the many screens, so Masato Shida oversaw artisanal production of the *dalle de verre* in France. Handmade *Echizen-tesuki* paper, which gets its uneven surface from water dripped on it during its manufacture, graces many of the inn's interior walls and partitions. For the communal baths, Kuma used a range of materials: bamboo on one, *hinoki* (a Japanese spruce) on another, and *sanseikuro* (a Chinese granite that has a grain similar to wood) on a third. The sun's rays filter into each bathing area, animating the spaces with subtle changes over the course of the day. "Daylight is really important," states Kuma. "It brings out the materiality."

In renovating the 10,000-square-foot *onsen*, Kuma reduced the number of guest rooms from 12 to eight, making them larger and giving each a small, private bath. He eliminated most furnishings, providing each room with ash-veneer cabinets, bentwood chairs, and an ash table, all of his own design. "I was thinking of two things," says Kuma of this project, "focusing on the essence of the materials and minimizing the details."

In some of his earlier projects, Kuma had exhibited an ironic approach to materials, making plates of stone float in the air at the Lotus House, for example. But at the Fujiya *onsen*, he plays it straight, while creating frankly modern spaces. "In other projects, I combined old and new in a mostly metaphorical way," says the architect. "Here, I combined them more literally." The result is a building that may be less overtly risk-taking but more comfortable in its (reinterpreted) skin. ■

For sources, go to page 142 or architecturalrecord.com/projects/.



Kuma used daylight from above and halogen lights in a cove at the floor's edges to soften the mood and accent the materials in a communal bath.

In the kitchen area, the glacier stair (this page), beneath the existing skylight, rises to the roof deck. Here, glossy white-lacquer finish plays against exposed strand board (opposite).





By Diana Lind

It's every architect's fantasy—getting carte blanche from a client. “It was excellent, and the first time for me,” Gus Wustemann says with evident glee, recalling how a couple contacted him after seeing his work in magazines, and offered complete creative license. The couple owned a 2,000-square-foot attic apartment in the historic quarter of Lucerne, Switzerland, and wanted it not just renovated, but transformed.

“The place was a black box—practically no context whatsoever,” Wustemann says of the loft's original condition. The architect, who has offices in Zurich and Barcelona, specializes in sleek, airy residential spaces. The dark garret in Lucerne was just calling for his brand of intervention.

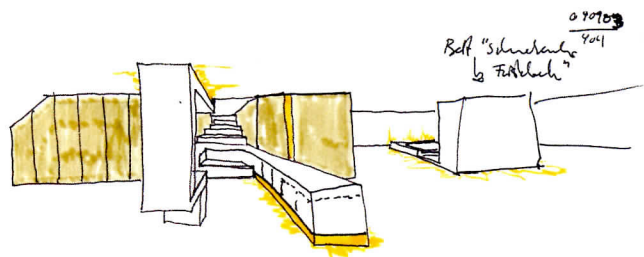
The clients, a food business manager and his wife, delivered a

Diana Lind is author of the forthcoming book *Brooklyn Modern* (Rizzoli 2008).

Project: *Glacier Loft, Lucerne, Switzerland*

Architect: *Gus Wustemann with Pinar Gönül*

In Lucerne, Switzerland, Gus **Wustemann** forms the crystalline **GLACIER LOFT**, turning a dark attic luminous



All the kitchen appliances lie hidden behind sleekly hinged panels (below and opposite, bottom left). The bathroom “box” can be closed or partially opened (bottom.)



brief of only two points: a light-filled loft and a better way to access their roof terrace (to replace the extremely ordinary existing stair). With these parameters set, they let Wustemann get to work. No histrionics, no difficult contractors, no budget-related delays. Half a year and \$190,000 later, the apartment was move-in ready.

Like this fairy-tale process, the resulting pure-white loft appears more ethereal than real. But that’s just the idea—the beauty distracts from the architect’s smart, hardworking solutions to the space’s shortcomings.

Wustemann—a Swiss native and longtime mountaineer—took inspiration from the glacier as a metaphor for the stair to the terrace and the loft’s entire “landscape.” The motif would connect not only the apartment to its roof deck, but also this most Modern interior to the nearby alpine scenery. “Getting to the light, and to the terrace, is a little like getting to the summit,” he explains, envisioning the loft’s components as part of the ascent through a glacial landscape.

To set the tone for that narrative, Wustemann coated the floors in white polyurethane, creating a “frozen lake” beneath his glacier. Offsetting the coolness of the floors, warm, honey-brown, unvarnished oriented strand board (OSB) forms the bathroom and service cores. For the built-in furniture and cabinetry, the architect chose the same inexpensive material, which offers a desirable sustainability through its reconstituted content. Elsewhere in the loft, OSB reappears in two other finishes—slick, lacquered white for the glacier stair, kitchen, and bedroom; and whitewashed for the existing structural walls—calling to mind the transformative states of such natural substances as stone eroding into sand or water chilling into ice.

Most of the loft, apart from the cores, remains open. Though the place, roughly trapezoidal in plan, appears free-form, the glacier stair is its centerpiece, immediately visible on entry. Here, Wustemann created a lacquered sculptural wall that rises with a meandering path of asymmetrically placed steps. Niches articulate the glacial cascade, casting an animated play of shadows while offering nooks for object display or storage. Also on the stair, friends can gather and chat or watch dinner preparation.

Much like ice floes on a frozen lake, the kitchen and bathroom are seemingly stationary objects that actually move. The bathroom, at first glance a simple OSB box, can be closed for privacy, or partially opened, keeping the room’s lower registers discretely hidden. The kitchen’s almost seamless white surfaces can be unfastened, its hinged panels revealing a refrigerator, stove, oven, and sink. And sheer white curtains—one covering a blank wall as if concealing yet another section of the apartment, the other closing off the bedroom—sway in the breeze. The movement keeps the loft’s sculptural sections in dialogue, even as the conventions of function remain purposefully obscured. “For many people, it would be a new kind of living,” says Wustemann, “because there are so few recognizable architectural features—the bathroom, the kitchen, the usual boring stuff.”

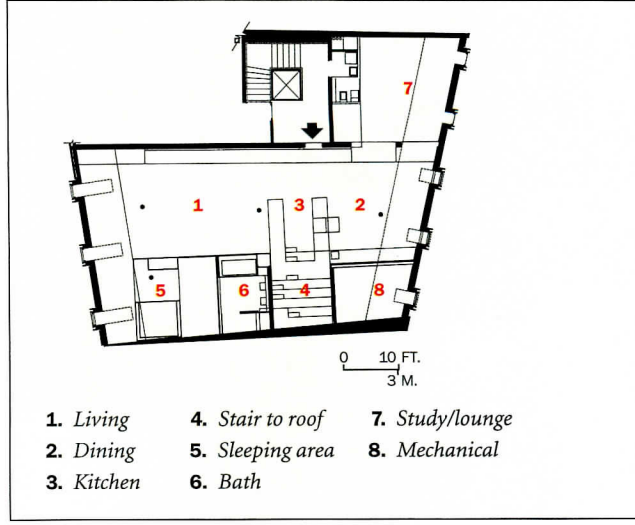
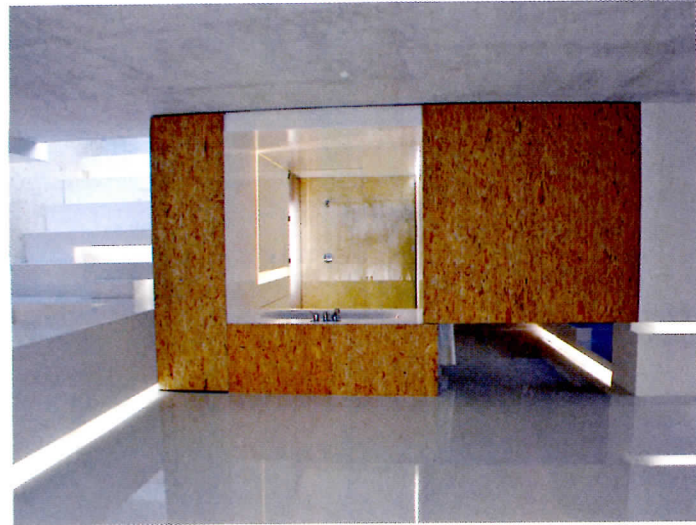
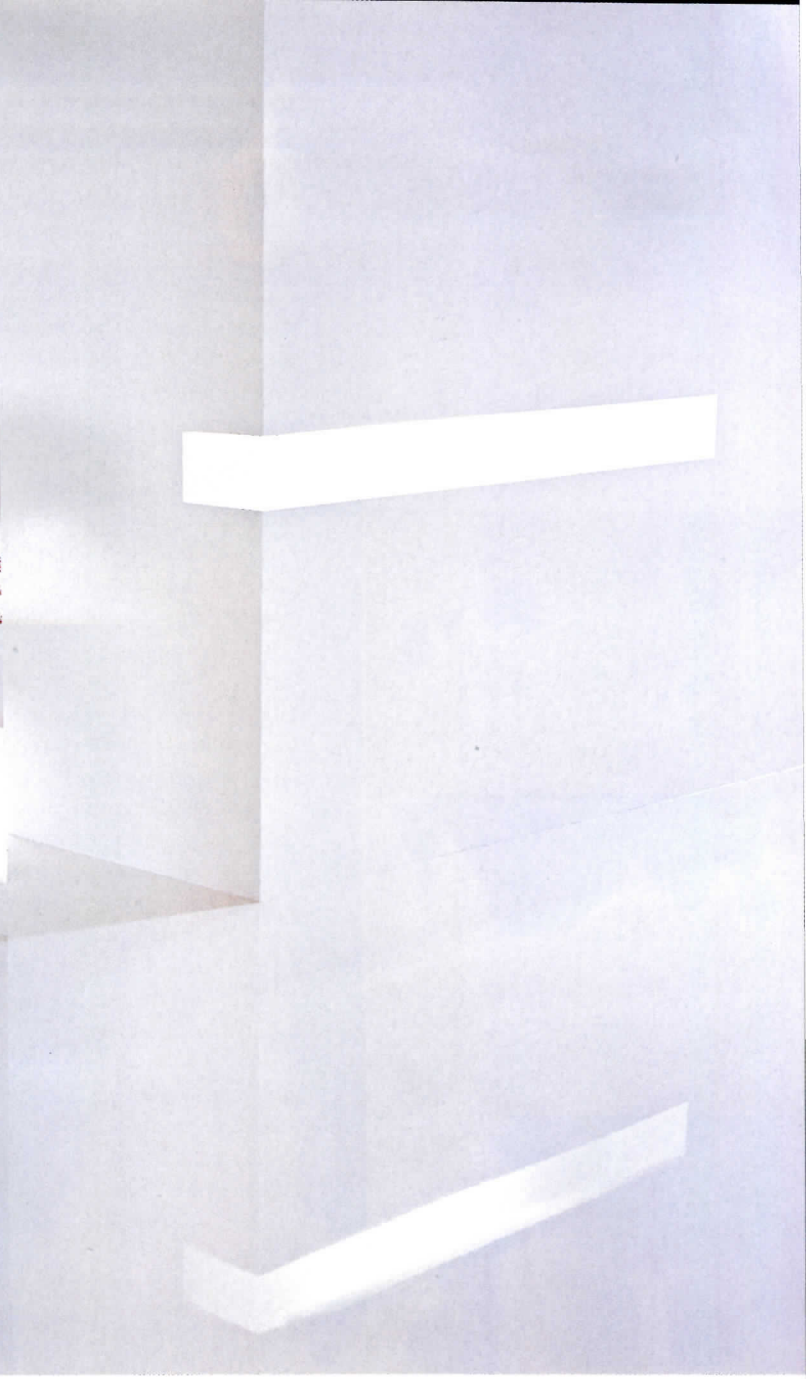
Enhancing the loft’s enigmatic qualities is the near absence of direct illumination. Slits in the lacquered walls glow with hidden, dimmable fluorescents. More recessed fluorescents lie in the stair nooks, beneath the kitchen cabinets, and under a living-area seating platform, providing light that filters through the space much as rays pass through a hunk of icy crystals, appearing bright white in some spots, but dark, almost blue, in others. As Wustemann notes, “The sculptures become alive through the light, taking the pressure off the call for a big window.” Without adding to the existing 10 small windows and single skylight, he achieved this remarkable luminosity.

After a leisurely glide through the loft, the path up the glacier wall offers yet one more delightful delay to the summit. There, the terrace awaits with a panorama of old Lucerne and the Swiss Alps beyond—a stunning view, well worth the journey. ■

For sources, go to page 142 or architecturalrecord.com/projects/.



The structural walls are clad in whitewashed OSB. Recessed, dimmable fluorescent lights, reflecting off the glossy floors, illuminate the loft (this page).

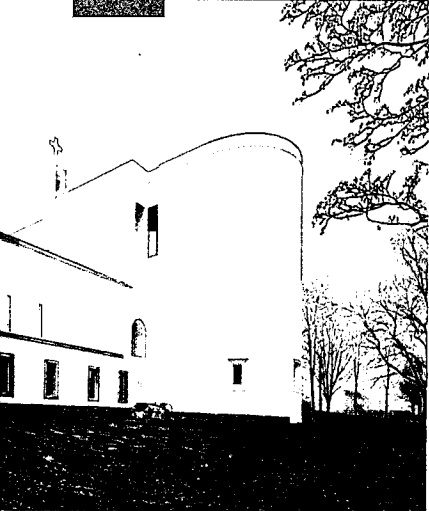
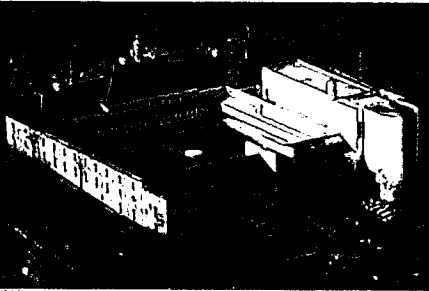


On the surface at least, it is hard to imagine a more incongruous combination of architect and client: the London-based John Pawson, known for his starkly Minimal and elegant temples to material culture, and a community of Cistercian monks whose lives revolve around prayer, study, and physical labor. But just such an odd couple has created a luminous monastery in a remote corner of Bohemia, the first built in the Czech Republic since the 1989 Velvet Revolution ended four decades of religious suppression.

The monastery, Our Lady of Novy Dvur, was founded by a group of mostly Czech Cistercians relocating from Sept-Fons Abbey in central France. Pawson won the commission in 1999 after Sept-Fons's abbot saw photographs of the architect's New York City Calvin Klein boutique. Though the store's program and consumerist mission could not differ more from a monastery's, the abbot saw in its Minimalism a spirit akin to traditional Cistercian buildings. As Father M. Samuel, superior of Novy Dvur recalls, "His work seemed well adapted to a monastic architecture."

Novy Dvur sits on a wooded, 100-acre site about 30 miles northwest of Pilsen. Here, on a slope, stood an abandoned 18th-century manor house that Pawson, with the Czech firm Atelier Soukup, restored and incorporated into the design. In place of several dilapidated agriculture buildings surrounding a court shared by the house, the team created three new wings that recall the character of the original structures.

The resulting 60,000-square-foot complex includes a church, dormitory, refectory, infirmary, and manuscript room—everything this religious community needs for a self-sufficient, structured routine that begins at 3:15 A.M. and includes prayer seven times a day. Now 20 monks live at Novy Dvur, but it is designed for an eventual group of about three dozen brothers. The architecture serving their ascetic life is accordingly spare, characterized



Project: *Our Lady of Novy Dvur, Bohemia, Czech Republic*
Architect: *John Pawson—Vishwa Kaushal, Pierre Saalburg, Stéphane Orsolini, Ségolene Getti, Stefan Dold,*

Shingo Ozawa, project team
Executive architect: *Atelier Soukup*
Collaborating architect: *Denton Corker Marshall*
Contractor: *Starkon CZ a.s.*



The monastery design incorporates a restored Baroque manor house (near left) and three new wings (far left three) surrounding a grassy court. Daylight enters the church (opposite) through hidden skylights and is channeled through openings in the nave walls' inner shell.

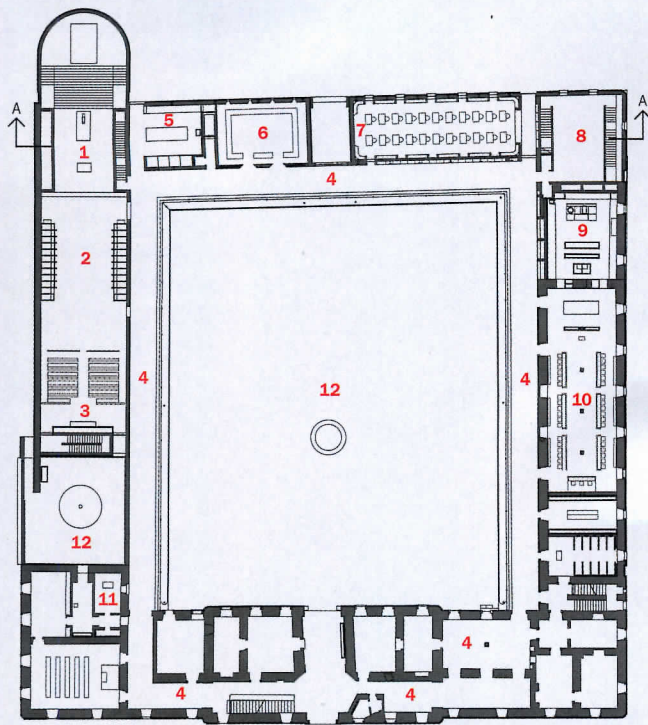
In a remote corner of Bohemia,
John Pawson sculpts light, carving
out a powerful yet ethereal home
for the brothers of **NOVY DVUR**





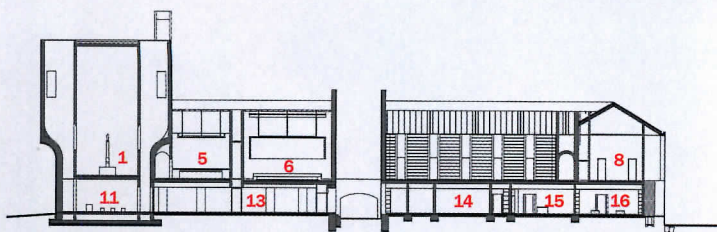
Though the refectory occupies one of Novy Dvur's new wings, the groin-vaulted ceiling, lime-washed walls, and stone columns recall the structures that previously stood on this site.





SECOND FLOOR PLAN

N ← 0 20 FT.
6 M.



SECTION A-A

1. Presbytery
2. Monks' choir
3. Lay area
4. Cloister
5. Sacristy
6. Chapter house
7. Scriptorium
8. Cowl room
9. Kitchen
10. Refectory
11. Chapel
12. Courtyard
13. Infirmary
14. Laundry
15. Cloakroom
16. Boot room

by smooth, white plaster; concrete; glass; wood; and stone. As Pawson puts it, "An absence of visual and functional distraction supports the goal of monastic life: concentration on God."

Reducing the architecture to essentials, he has seemingly questioned the necessity of every element, even structure. In the glass-enclosed cloister, a barrel-vaulted ceiling cantilevers toward the grassy inner court. With no columns at the perimeter, an interior bench becomes a rainwater canal on the exterior, opening the walkway visually to the court—a modern interpretation of the traditionally more contained (or "cloistered") space.

The church, on the north side of the quadrangle, most clearly a new insertion, rises with an almost windowless skin and sculptural apse, its flat roof contrasting sharply with the other three wings' sloped slate roofs and facades articulated by punched openings and stone string courses. Inside, the sanctuary is all volume and light. Conveying a sense of mystery, hidden skylights channel reflected and diffuse daylight through openings in a secondary set of nave walls, bathing the elongated and tall space in an ethereal glow.

Pawson says the manipulation of daylight, handling of proportion, and simplicity of detailing, along with the programmatic components, were informed by a template created in the 12th century by Saint Bernard outlining the essentials of a Cistercian monastery. But the building is nevertheless, as he says, "of this community and of this time."

And that is exactly the kind of monastery the client hoped for. "We sought a building adapted to the monastic life we live today" rather than one founded on "archaic ideas," says Father Samuel. Founding Novy Dvur was "not a matter of archaeology," but a "matter of concrete life." ■

For sources, go to page 142 or architecturalrecord.com/projects/.



The ceiling of Novy Dvur's barrel-vaulted and glazed cloister cantilevers toward the grassy inner court, appearing to float over the slightly reflective resin-coated concrete floor. A continuous bench at the cloister's perimeter transforms into a rainwater trough on the exterior.



Steps lead from the church's apse to the presbytery. Invisible from the choir and lay areas, these stairs give the impression of the floor falling away, enhancing the atmosphere of mystery.

Asymptote renders the new store for **ALESSI** in jagged strips of light, adding drama to New York's SoHo neighborhood



Fluorescent "light bars" define folded ceiling and wall elements. Receding in layers like a series of angular proscenium arches, they draw shoppers into the store and café (above).

Facing the espresso bar, shelves of vacuum-formed PVC, set within the luminous folds, display historic Alessi items. Between the folds are banquettes.



By Suzanne Stephens

For its flagship in the SoHo neighborhood of New York City, Alessi, the ultra-design-conscious Italian manufacturer of household objects, found a hot location—on Greene Street, where a dense cluster of design stores guarantees high-volume, well-heeled pedestrian traffic. But the narrow, 13-foot-wide storefront in a renovated loft building lacked dramatic presence. Although the long, 1,800-square-foot interior widens to 21 feet toward the rear, the place posed yet another problem, namely “too much space for this kind of retail operation,” as Jan Vingerhoets, Alessi USA’s executive vice president, puts it. But he and Alberto Alessi, the company’s joint general manager, hit on a solution: an espresso bar inside the shop. The concession, serving on Alessi tableware, would draw potential customers, while demonstrating that these fanciful objects were not just for collecting.

For both the interior and graphic design, Alessi hired Asymptote Architecture, a New York firm, whose principals, Hani Rashid and Lise Anne Couture, have forged an avant-garde reputation based on digitally generated forms. Alessi’s mandate was to update the store image from its 1980s Postmodern heyday, when it purveyed playful polychromed objects by Michael Graves, Aldo Rossi, Hans Hollein, and others in similarly colorful and whimsical shops by Atelier Mendini. While those stores functioned well in presenting Alessi’s evolving line by later generations of vanguard architects and designers, including Asymptote, Frank Gehry, Zaha Hadid, and Toyo Ito, “It was time to be different,” says Vingerhoets, “especially in New York.”

Asymptote’s scheme draws on a pale-blue and cloud-white palette (inspired, says Rashid, by mist on Lago Orta, Italy, near the company’s headquarters) to endow the cavernous space with an ethereal aura. Principles of stagecraft pull visitors in, beyond the espresso bar, to the objects for sale. With a series of folded walls and ceilings, made of medium-density fiberboard and spaced algorithmically, the architects created successive layers of angular proscenium arches in forced perspective. Visible from the street, the jagged, receding planes are dramatized by 2-foot-wide light bars that edge the folds. These troughs of fluorescent fixtures beneath stretched, white copolymer membranes help define bays for espresso sipping or object display. At the back of the store is the true *mise-en-scène*. Here, an off-white, bent-steel shelving system, illuminated by hidden LEDs, juts out from the sidewalls, following the pattern of the light bars—presenting Alessi’s gleaming artifacts as if on miniscule stages.

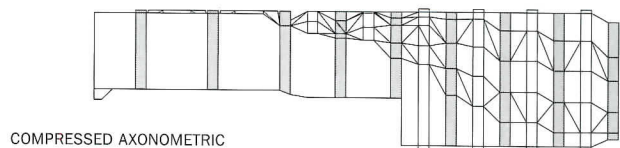
In the year since its opening, “Asymptote’s shop has proved number one in sales worldwide out of our 18 stores,” Vingerhoets proclaims. While the architects are now hard at work on a master plan for central Prague, a 50-story residential tower in Abu Dhabi, plus a mid-rise luxury condominium in Manhattan’s West Village, Rashid doesn’t discount small-scale shop design. “Each store,” he says, “is an architectural experiment that adds something to the city.” ■

Project: Alessi Flagship Store, New York City

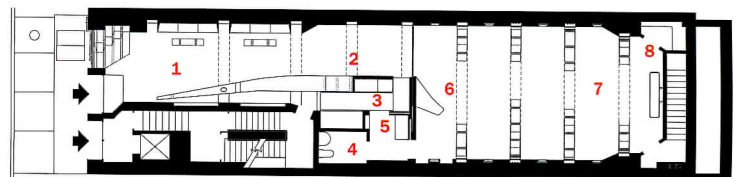
Architect: Asymptote Architecture—Hani Rashid and Lise Anne Couture, principals; Jill Leckner, Stella Lee, David Lessard, project architects

Consultants: Robert Silman Associates (structural); Tillotson Design Associates (lighting)

At the rear of the store, off-white, bent-metal shelving, by Asymptote and Visplay, continue in three dimensions the graphic pattern of the light bars.

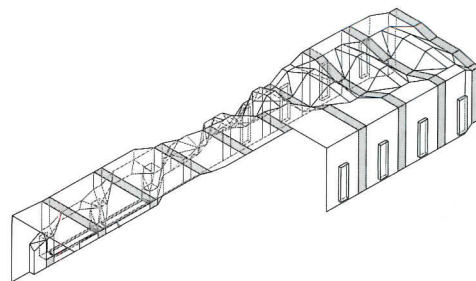


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COMPOSITE AXONOMETRIC

1. Entry seating
2. Espresso bar
3. Café register
4. Bathroom
5. Washing area
6. Shop register
7. Sales area
8. Gift wrap/storage

For sources, go to page 142 or architecturalrecord.com/projects/.



A 38-foot-long counter frames the espresso bar. Ethereally, the vinyl wall covering and poured-epoxy floor reflect shifting patterns of light.

SOURCES/RESOURCES PROJECTS



JIN'S GLOBAL STANDARD

Chiba, Japan

(page 112)

Sources

Paint: Nippon Paint (ceiling, wall);

Daido Corporation (floor)

Lighting: ITL Company

(interior ambient)

Interior finishes: Mihasi Company

(moulding)

HONDA ADVANCED DESIGN CENTER

Pasadena, California

(page 118)



Sources

Furnishing: Vitra

Fabrication: Aircraft Windshield

(plastic thermoforming); Aria

Advanced Composites Manufacturing

(mold milling); Metalmorphosis

(metal pole fabrication); FELT Studio

(felt panel fabrication)

Doors: Pacific National Group

(glass doors)

GINZAN ONSEN FUJIYA

Obanazawa, Japan

(page 122)

Sources

Roofing: Yodoko (galvanized steel)

Hardware: Miwa Lock (locksets);

Atom (hinges)

Interior finishes: LGS

(suspension grid)

Furnishing: Tendo Mokko

(chairs, tables)

Conveyance: Mitsubishi

Plumbing: Imax-Satis (toilets);

Fantini (showers); Agape, Toto

(sinks); Cera, Advan (faucets)

Stained glass: Peintre Verrier

(Masato Shida)

Sumushiko: Hideo Nakata



GLACIER LOFT

Lucerne, Switzerland

(page 128)

Sources

Interior: LuternauerInnenausbau GmbH (sliding doors, demountable partitions, custom woodwork)

Interior finishes: Schlagenhauf (paints and stains, wall coverings)

Flooring: Walo Bertschinger AG

(resilient flooring)

NOVY DVUR

Bohemia, Czech Republic

(page 132)

Sources

Organ design: Kánsky-Brachtl

Flooring: Remmers (resin)

Seating: Betsinor (precast bench)

Taps: Dornbracht

Door handles: FSB

Skylight: Schuko

Roofing: Sarnafil; Rheizink (zink)



ALESSI FLAGSHIP STORE

New York City

(page 138)

Sources

Glazing: Empire Glass

Hardware: FSB (lockset)

Interior finishes: NJS woodwork

(cabinetwork); Abet Laminati (lami-

nate); Barrisol (special surfacing)

Lighting: Bartco (ambient); Con-Tech

(downlighting); Alko (task lighting);

Lutron (controls)



For more information on these projects, go to
Projects at architecturalrecord.com.

Architectural Technology

Smart, smarter, smartest

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- 151** The New Age of High-Tech Hospitals
- 160** For Smart Materials, Change Is Good
- 164** A Prague Stairwell's DNA Structure Revealed



This light project takes smart materials up a notch (page 160).



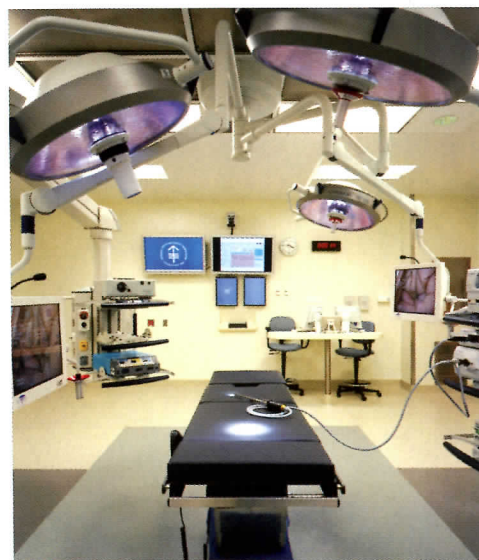
DNA sequences inspire the smart design of a stairwell (page 164).

Smart hospitals. Smart materials. Smart design. This month, we take “smart” three ways. Of course, it can mean so many things, but when we think about it in terms of architecture, we typically invoke technology. Smart design adds a layer of informed wisdom, feedback potential, or control to the increasingly interwoven systems that make up architecture. We’ve often used the term to hype a future eased by technological breakthroughs. In the middle of the last century, we would have thought about automation and the ways in which buildings do things without human intervention. Think of thermostats and lighting-control systems, both of which have become standard components of architecture.

Now, we must consider the ubiquity of information technology (IT) and how it has spread to nearly every aspect of building technology. A ballast in a fluorescent light fixture becomes an Internet protocol address in a computer network that sees architecture as a simple set of numbers to decode. *The Matrix* aside, anything can reside on the networks of this virtual architecture. The convergence of IT systems in health care leads the building industry’s embrace of technology’s potential, so we begin by looking at high-tech hospitals. Not surprisingly, we find them far from a seamless paradigm of integration. Health-care architects face a complicated task of sorting through rapidly developing technologies, but they can often overlook who should be their best friend: the IT consultant.

We then consider smart materials, particularly the way they are underutilized by the architecture profession. Why do we insist on subjugating new, little-understood materials to the realm of predetermined, market-based construction categories? Too often, this leads to the misuse of materials or, worse, it prevents our buildings from exploiting the full benefits of a material’s potential. Thankfully, some architects are working to change that for the better.

Finally, we close with a stairwell in Prague that takes the coded genetic underpinnings of what it means to be smart—DNA—as inspiration for the etched pattern on its glass landings. It turns out that intelligent design is all around us, if we take the time to see it. *Russell Fortmeyer*



ONLINE: View additional images of other health-care projects at architecturalrecord.com/tech/. Submit your project to construction.com/community/gallerylist.aspx.

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The New Age of High-Tech Hospitals

INFORMATION TECHNOLOGY AND DIGITALLY ENABLED MEDICINE MAY BE CONVERGING ONTO A SINGLE SYSTEM, BUT ARE ARCHITECTS PREPARED TO TAKE THE LEAD WITH THEIR HEALTH-CARE CLIENTS?

The planned Sidra Medical and Research Center in Doha, Qatar, will combine architectural spectacle with advanced health-care technology.



By Russell Fortmeyer

CONTINUING EDUCATION



Use the following learning objectives to focus your study while reading this month's ARCHITECTURAL RECORD/AIA Continuing Education article. To earn one AIA learning unit, including one hour of health, safety, and

welfare credit, turn to page 159 and follow the instructions. Other opportunities to receive Continuing Education credits in this issue can be found beginning on page 167.

LEARNING OBJECTIVES

After reading this article, you should be able to:

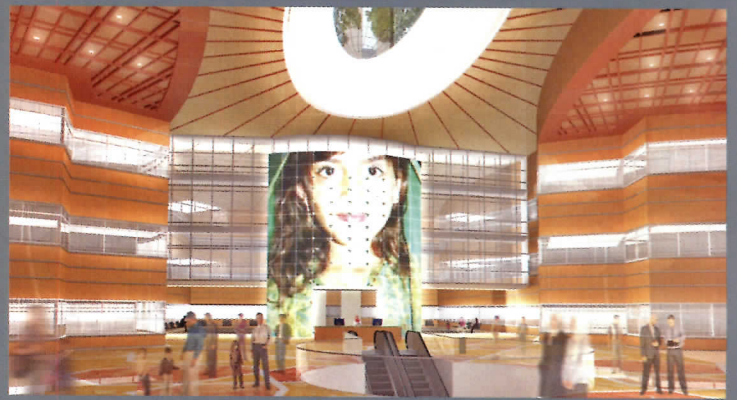
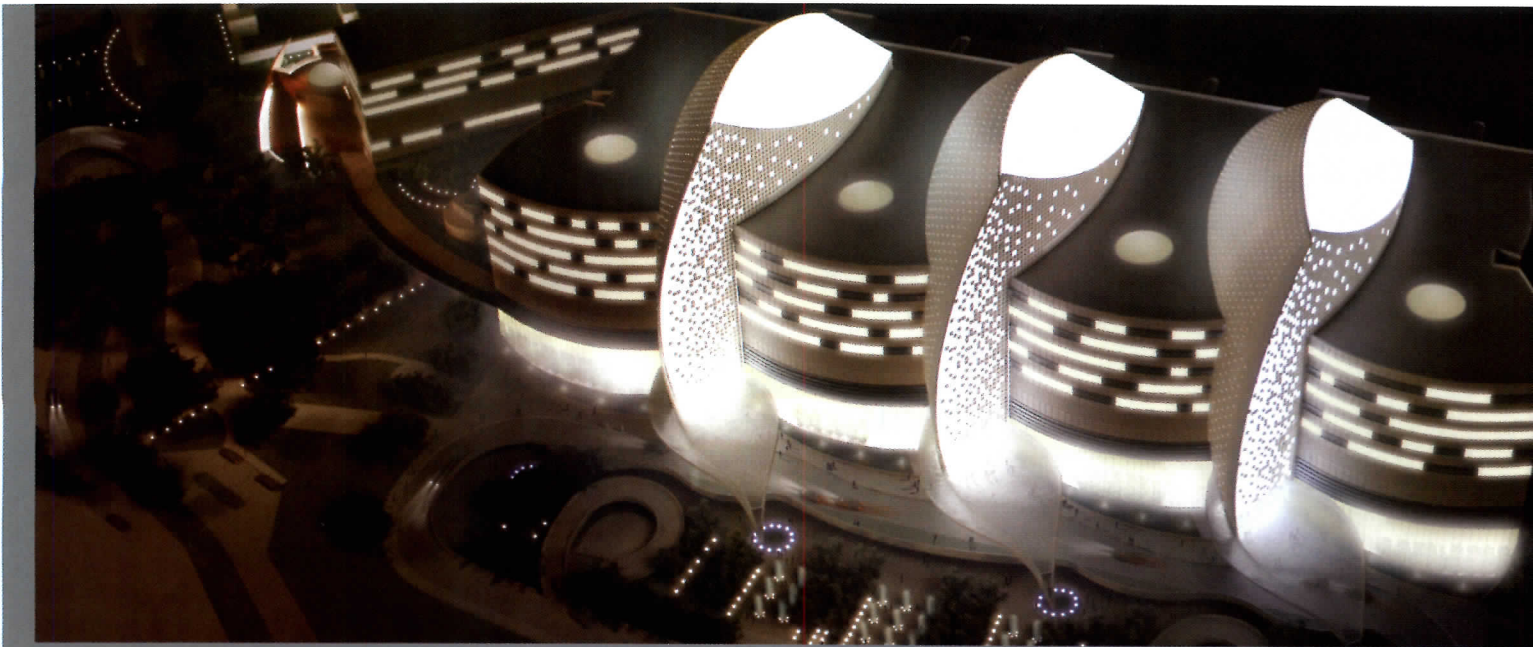
1. Describe changes in technology that will affect hospital design.
2. Explain the advantages of converging networks onto fiber-optic cable.
3. Discuss the IEEE standards that will promote convergence.

The best new digitally enabled American hospital of the next five years may be in Qatar. This tiny Middle Eastern state has brought together American architects Ellerbe Becket and Pelli Clarke Pelli to design the technologically advanced Sidra Medical and Research Center, part of the ambitious Education City project in Qatar's capital of Doha.

If built as planned, Sidra would epitomize a fairly progressive model of acute-care hospital design, where architects and their clients deploy technology in a variety of modes: in the realm of patient care; for enabling international collaboration and education in the medical field; to operate building systems; and to design the building itself. Perhaps most explicitly, technology could be used as a way to explain the hospital and its spaces to visitors. But what all of these disparate applications may ultimately share is a single digital conduit—or backbone—that collapses the information technology (IT) supporting the processes of running a hospital onto a piece of fiber-optic cable.

"Before, each system had its own cabling infrastructure, while now that's no longer the case," says Joe Leger, a Seattle-based principal with EDI, a group of information-technology consultants based in Atlanta who specialize in health-care technology. "When we ask for large rooms for IT, architects cringe, but we're actually saving space because

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



traditionally we would have been asking for individual rooms for each system.” Leger is consulting with Ellerbe and Pelli on the nearly 400-patient-bed, 1.7-million-square-foot Sidra project. The hospital—Sidra is the name of an indigenous tree in Qatar—will be operationally connected to the Weill Cornell Medical Center in New York City.

Nowhere has convergence caught on more than in the operating room (OR) suites, where the past five years have seen an explosion in the use of flat-screen monitors, interventional radiology equipment, and videoconferencing capabilities that have brought such heretofore invisible support equipment, like IT racks and cabling wireways, into a realm previously considered sacrosanct for reasons of hygiene.

Contrary to this development, however, the emergence of the IT consultant as a major player at the health-care design table continues slowly, with many consultants still lamenting that by the time architects include them in the process, it’s often too late. Furthermore, the health-care industry, and its architects, increasingly grapple with a variety of digital-infrastructure issues, such as myriad cable options and space planning, that have yet to be codified. But industry players see change on the horizon.

All systems go

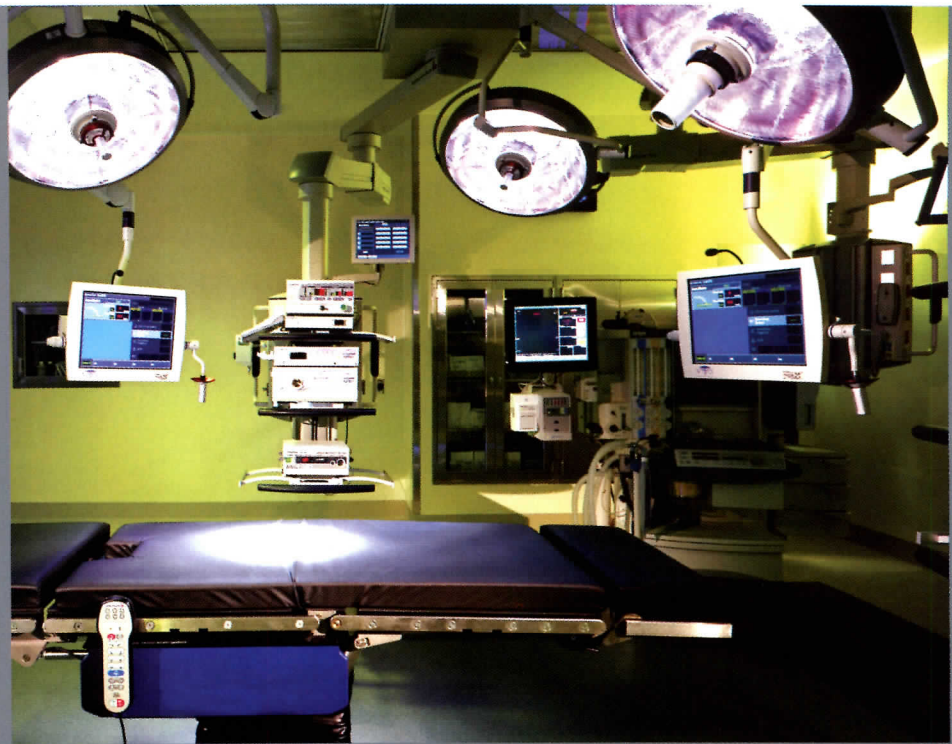
The sheer number of digital systems that go into a hospital has encouraged clients to embrace convergence. On the medical side, these systems can include both informational and clinical kinds, such as Electronic

Medical Records (EMR), Picture Archival and Communications Systems (PACS), and radio frequency identification tagging (RFID). Systems such as nurse call, code blue, fire alarm, and telemetry and patient monitoring (vitals) are placed on separate networks, since they are critical systems. Communications systems, such as voice-over Internet protocol (VOIP), video- and teleconferencing, and overhead paging, are also typically separate. Security, including infant abduction systems, are yet another separate item. The building systems side, typically the province of the mechanical engineer and a building-management system (BMS), often consists of monitoring the mechanical ventilation systems, indoor air quality, and humidity, as well as central plant equipment operating status. In some cases, the BMS may monitor lighting systems and energy use, though this is less common.

Hospitals have pushed for medical systems to go wireless, which conceivably allows medical staff, particularly nurses, to stay mobile and yet connected. For example, with a VOIP system, which routes telephone calls across a network—as opposed to a conventional phone system—a hospital can direct a call for a nurse to one of several locations: an office phone, pager, cell phone, overhead paging speaker, or even the nurse call device at a patient’s bedside. This connectivity depends on a distributed antenna system (DAS) throughout the hospital; the antennae look like smoke detectors, but they are basically wireless on-ramps to the hospital’s network. What makes this transfer between

Sidra Medical and Research Center Doha, Qatar

Three offices of Minneapolis-based Ellerbe Becket, with design architect Pelli Clarke Pelli Architects, are collaborating on this new, 1.7-million-square-foot hospital in the Middle East. Sophisticated wayfinding displays and interactive flat-screen TVs in patient rooms use technology to soften the visitor's experience.



Memorial Sloan-Kettering Cancer Center New York City, 2006

Perkins Eastman and KMD Architects collaborated with the facility and IT consultants Shen Milson & Wilke on new surgical suites for this existing cancer center, incorporating what is arguably the most progressive technology program for ORs in the country (above). Doctors can access pathology results on videoconferencing equipment in any of the 21 rooms (right).



communication device, antenna, and network even possible is so-called "middleware," a software solution that translates the voice data between these various digital components. Mario Sanchez, a technology consultant with the Los Angeles office of RTKL Architects, refers to this concept as the "call-escalation procedure." Once a call is converted to data, moving it around the network simply depends on the preference of the hospital. "Facilities are being very slow at adopting this because it's a huge capital investment," Sanchez says, noting that many hospital projects occur on existing campuses where design teams face established standards for IT infrastructure.

Regardless of the potential for convergence, and given the sweeping nature of the Health Information Patient Privacy Act (HIPPA) passed in 1996, directing large amounts of sensitive data around digital networks has concerned many hospitals. This becomes more critical when a hospital adopts EMR systems, where a patient's entire medical history may be moving throughout a statewide medical records system, such as will be the case in Wisconsin. Mark Valenti, the president and C.E.O. of Pittsburgh-based technology consultants The Sextant Group, says firewalls are effective, but there can still be considerable security risk. "It's less expensive to build a couple of networks than to think about a converged environment, once you start to consider the risks," Valenti says. This is mainly true because most digital devices are fed with copper wire, since fiber optics are expensive and are used mainly for the backbone of the

system. Copper wire, Valenti says, is easy to strip of data, but fiber-optic cables are secure and, since they hold so much data, would make systems convergence a snap. However, he says it could be 10 to 20 years before fiber optics are cheap enough to replace copper.

Converging bricks and mortar

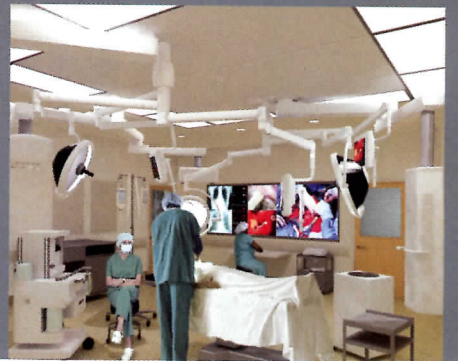
Convergence translates to health-care architecture mostly through the centralization of these systems in massive new data centers, as well as the proliferation of smaller closets to handle wireless devices or critical components that cannot be housed with other systems. Consider that instead of three antennae in the corridor ceiling for different systems, one antenna feeds back to an IT closet where each system's control unit would be mounted in an equipment rack. With each additional system, more rack space is needed, and IT closets get larger. This situation, as well as how all of these IT considerations affect the operational procedures of the hospital, explains why consultants like RTKL's Sanchez argue for their early involvement in design. The tendency of architects in planning the building to use out-dated grossing factors—standardized area-allocation percentages—which affect square footage for IT space, only exacerbates the problem.

For example, take the PACS system, which is basically a digital X-ray, or could be something like magnetic resonance imaging (MRI) results. Doctors and radiologists use these images to diagnose a patient. A doctor may want to review that information at the patient's bedside, in an



Geisinger Wyoming Valley Medical Center
Wilkes-Barre, Pennsylvania, 2003–08

Philadelphia-based architects Francis Cauffman designed the operating rooms for the in-construction critical-care building to be 600 to 800 square feet, versus the industry standard of 400 to 600 square feet, in part to accommodate more technology (right). That building is part of a larger master plan (top right) that included a heart hospital (above and middle right).



OR, or on a golf course, so the IT system must accommodate compression formats that support moving this data between everything from large-screen monitors to handheld personal digital assistants (PDAs). If the IT consultant can't establish these hospital operational needs early on, adding equipment racks at the end of the construction document phase may prove impossible. This is the sort of "planning" that leads to IT rooms in converted janitor's closets.

"The rate of change on the technology side complicates long-range planning," says Jim Crispino, AIA, president of the Philadelphia-based firm Francis Cauffman, "but you just have to build that space into your infrastructure." Crispino, who leads his firm's health-care design from its New York office, feels that health care is in a technology transition, where old systems like light boxes for X-rays are still required, even when hospitals have adopted digital formats.


The penchant for building flexible shell space, particularly for new hospitals, can often lead to complications, he says, because while a hospital may agree to build 500 square feet of shell space for a future CT scan room, they may not agree to build 50 square feet for an IT closet to support it. "We have to understand that these things have a physical presence, and because of that very simple fact, how they are configured and where they reside needs to be coordinated by the architect," Crispino says. If you ask many IT consultants whether most architects understand what Crispino is saying, you're likely to hear a resounding no. But that is chang-

ing as more health-care clients have recognized how poor decisions about technology infrastructure can haunt their buildings for years to come. By 2009, it's expected that a new version of the National Fire Protection Agency's *Standard for Health Care Facilities* (NFPA 99) will codify things such as IT room sizes, basically forcing the issue on architects.

Operating rooms under the knife

The ORs in a new addition at New York City's Memorial Sloan-Kettering Cancer Center opened in May 2006. Designed by architects Perkins Eastman and KMD, with New York IT consultants Shen Milsom & Wilke (SMW), the technology installed in the 21 ORs represents an advanced model of digitally enabled health care. Aside from a PACS system, SMW designed a Digital Video Archival and Communication System (DVACS) that integrates digital video editing, indexing, digital video transport, patient monitoring, audiovisual systems, and various medical systems into a single, time-stamped digital file that could be searched based on spoken word, time parameters, or even something like heart-rate information.

For example, a doctor could review a procedure to pinpoint each time a patient's heart rate exceeded a certain level. Doug Santo, a consultant with SMW, helped develop each OR's Wall of Knowledge, which basically amounts to flat-screen televisions programmed to display things like radiology images, live video of the procedure, endoscopic images, or patient vitals. "In order to collect five physiological monitor



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Methodist Mansfield Medical Center,
Mansfield, Texas, 2006

Dallas-based RTKL Architects designed this 285,000-square-foot acute-care hospital (above), located near Dallas, with an emergency department, surgery facilities, 80 private patient rooms, a cardiac catheterization lab, and a women's hospital. A typical IT closet (above right) includes equipment racks for such things as nurse call, communications, paging, telemetry and patient monitoring, and video-conferencing. Additional shell space in these rooms can help hospitals plan for the future. RTKL has developed a model for patient rooms (right) that the firm plans to deploy across the large number of health-care facilities it designs every year.

1. Internet-enabled TV
2. Wireless antenna
3. Patient monitoring
4. Nurse call system
5. RFID-tagged patient bed



feeds and combine them into one digital model is fairly complex," Santo says, adding that expensive software does most of the work.

The integrated systems in the ORs at Sloan-Kettering benefited a great deal from a client who knew how to coordinate the needs of both the surgical side and the facility IT side, says Doug Gordon, AIA, with KMD's Portland, Oregon, office. "In my experience, IT has definitely come around to become a more sophisticated part of the hospital's infrastructure, for surgeons and facilities managers," Gordon says.

At Sloan-Kettering, SMW installed a video-only IP network, to keep the huge streams of data from competing with things like e-mail on the regular network. Although this enormous video archive of thoroughly documented procedures opens the hospital to potential liability issues, it is a boon to medical education and to minimizing the need for invasive procedures. This last benefit is significant, as a doctor can now take a biopsy before a procedure and get digital results back quickly enough from a pathology lab that a diagnosis can be made in the OR. In some cases, it can eliminate the need to bring the patient back to the OR and under anesthesia again—which is always a risk—following a later diagnosis. The technology has enabled even further compartmentalizing of responsibilities, as SMW's Santo says some hospitals have electronically transferred radiology images to diagnostic services in India and Australia, to save both time and money. "The technology is just there to help the surgeons do their jobs better," he says.

Diagnosing the building

If anything has held up the convergence of these myriad electronic systems, it has been that medical-equipment and building-products industries have remained apprehensive about standardizing technology. Every nurse call system on the market uses proprietary technology. Building-management systems, which have become even more comprehensive in the past five years, also suffer this fate. What that means is that a health-care client must live with a specific system for years, if not decades, since changing would require a costly wholesale replacement.

A huge motivating factor for digital convergence is the developing standard 802.11-2007 of the Institute of Electrical and Electronic Engineers (IEEE). Without adding yet more acronyms to this article and further confusing the reader, this standard basically governs wireless networks in buildings, establishing protocols for bandwidth, capacity, and speed. As an example, EDI's Leger points to telemetry, which is a wireless system that allows hospitals to track a patient's vitals no matter where they are in the building. Currently, telemetry would be on its own network, but Leger says several manufacturers are working to operate systems over the 802.11 standard. As more types of technologies converge onto the 802.11 standard, fewer wires will be needed in cable trays. However, Leger is quick to admit wired networks won't go away, since they have unparalleled reliability.

Building-management systems, provided by industry giants like Honeywell, Johnson Controls, and Siemens, among others, offer much

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potential for streamlining hospital operations. Devices like RFID tags, thermostats, chiller alarms, and light sensors could all communicate across a single network, which would allow other devices to be added in the future to create a digital mesh across the facility. IEEE's standard 802.15, commonly referred to as "ZigBee," governs so-called mesh networks. ZigBee is a data protocol for a low-power, low-bandwidth network, and it is the standard the industry will eventually adopt. A mesh network, as opposed to a daisy-chain approach, eliminates widespread failure because devices are connected to each other in multiple ways. A thermostat would connect to thermostats in each adjoining room, or could potentially connect to something like a light fixture ballast. Each point along that mesh is just another IP address in the network. RTKL's Sanchez considers this integration, or what we could call a "smart building," like an insurance policy against the future. "We know there's going to be more technology coming down the line," he says. "The most consolidation you can do at the beginning, the better you'll be positioned when it arrives."

Cheap energy often prevents the implementation of such building-management systems. The Sextant Group's Valenti sees this firsthand, as he helped develop the *Intelligent Buildings Roadmap* for the Continental Automated Buildings Association. The *Roadmap*, finished in April 2007, is essentially a marketing push for the adoption of comprehensive systems in buildings to combine electrical, mechanical, security, communications, data, and just about anything else currently residing on

a digital network. Valenti says there is little incentive for a facility manager to implement what could be a costly system, when energy rates remain historically low. "An intelligent building would have a piece of software programmed to automate all of this," he says. Valenti imagines that a client could tie room scheduling to the mechanical system, where a vacant conference room could shut its cooling off when not in use. That may sound like peanuts, but in a 500,000-square-foot hospital, the savings add up quickly.

That's the sort of thinking that motivates the design team on the Sidra project in Doha, which is being designed as a building information model (BIM) to achieve a seamless integration from the beginning. Travis Leissner, AIA, with Ellerbe's Minneapolis office, says visitors will get a taste of the digital convergence of the hospital's systems from the moment they walk in the door. Large, wall-size LCD screens in the atrium lobbies will direct patients to their appropriate hospital—adult, women's, or children's—based on the projection of related imagery. It's a bold, digital effort at wayfinding, often a sore spot with hospital patients. Summarizing the approach to the elegant campus, which begins construction this fall for a 2010 completion, Leissner says, "The concept for the hospital was to be both high-tech and high-touch, so patients have sophisticated technology in an inviting, healing environment." Once Sidra opens and the digital systems go online, patients may find they require more than just nursing care—perhaps also some bedside IT support to assist with e-mail. ■



AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION

INSTRUCTIONS

- ◆ Read the article "The New Age of High-Tech Hospitals" using the learning objectives provided.
- ◆ Complete the questions below, then fill in your answers on the next page.
- ◆ Fill out and submit the AIA/CES education reporting form on the next page or download the form at archrecord.construction.com to receive one AIA learning unit.

QUESTIONS

1. Recently, operating-room suites have incorporated all except which technologies?
 - a. voice-over IP systems
 - b. flat-screen monitors
 - c. videoconferencing
 - d. interventional radiology
2. Aside from a higher capacity for transmitting data, the use of fiber-optic cables for hospital technology systems is especially beneficial for which reason?
 - a. fiber-optic cable is more flexible
 - b. fiber-optic cable is cheaper
 - c. fiber-optic cable is more secure
 - d. fiber-optic cable is stronger
3. Hospitals have pushed for medical systems to go wireless for which reason?
 - a. to cut down on IT equipment
 - b. for staff to stay connected while being mobile
 - c. to eliminate overhead paging
 - d. to keep better track of the staff
4. The digital transfer of voice between communication devices, antennae, and networks is possible because of which?
 - a. video input
 - b. a software that translates the voice data between digital components
 - c. fiber-optic cables
 - d. mesh networks
5. The installation of videoconferencing and recording technology will most dramatically affect physicians' ability to do what in an operating room?
 - a. digitally record a procedure
 - b. watch the procedure from a remote location
 - c. both diagnose and treat patients during a single procedure
 - d. broadcast the procedure to a patient's family
6. What has been the biggest hindrance to digital convergence of building-management systems in hospitals?
 - a. electrical codes
 - b. proprietary technology
 - c. lack of leadership from hospitals
 - d. FCC standards for health care
7. The largest motivating factor for digital convergence of wireless IT systems is which?
 - a. HMO lobbyists
 - b. nurses' unions
 - c. American Medical Association
 - d. IEEE Standard 802.11
8. Wired networks will not go away for which reason?
 - a. their reliability
 - b. their cost advantage
 - c. they are the FCC standard
 - d. IEEE code requires them
9. What is an advantage of a mesh network?
 - a. it is currently the industry standard
 - b. it will eliminate widespread failure because devices are connected in multiple ways
 - c. it centralizes the majority of IT equipment in dedicated rooms
 - d. it is a data protocol for a high-energy, low-bandwidth network
10. In the Sidra project, patients will find their way to the appropriate hospital through which method?
 - a. color-coded arrows on the floor
 - b. volunteers giving directions
 - c. handheld GPS devices
 - d. LCD screens in each lobby

Program title: "The New Age of High-Tech Hospitals," Architectural Record (09/07, page 151).

097EDIT1

AIA/CES Credit: This article will earn you one AIA/CES LU hour of health, safety, and welfare credit. (Valid for credit through August 2009.)

Directions: Select one answer for each question in the exam and completely circle appropriate letter. A minimum score of 80% is required to earn credit. Take this test online at <http://archrecord.construction.com/continuinged/default.asp>.

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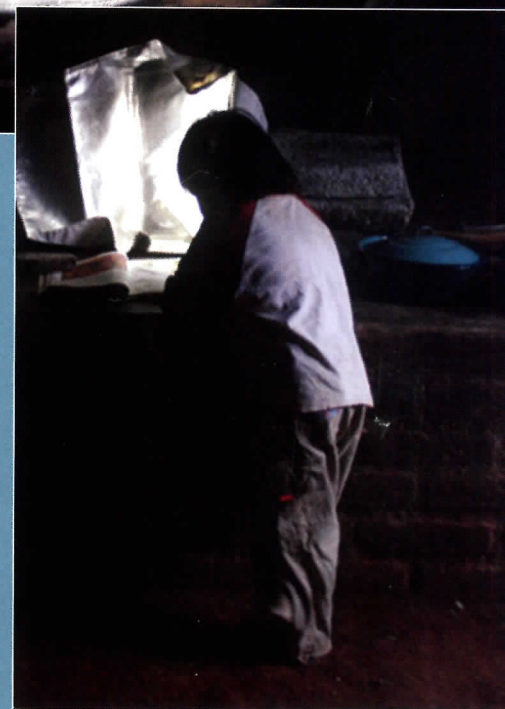
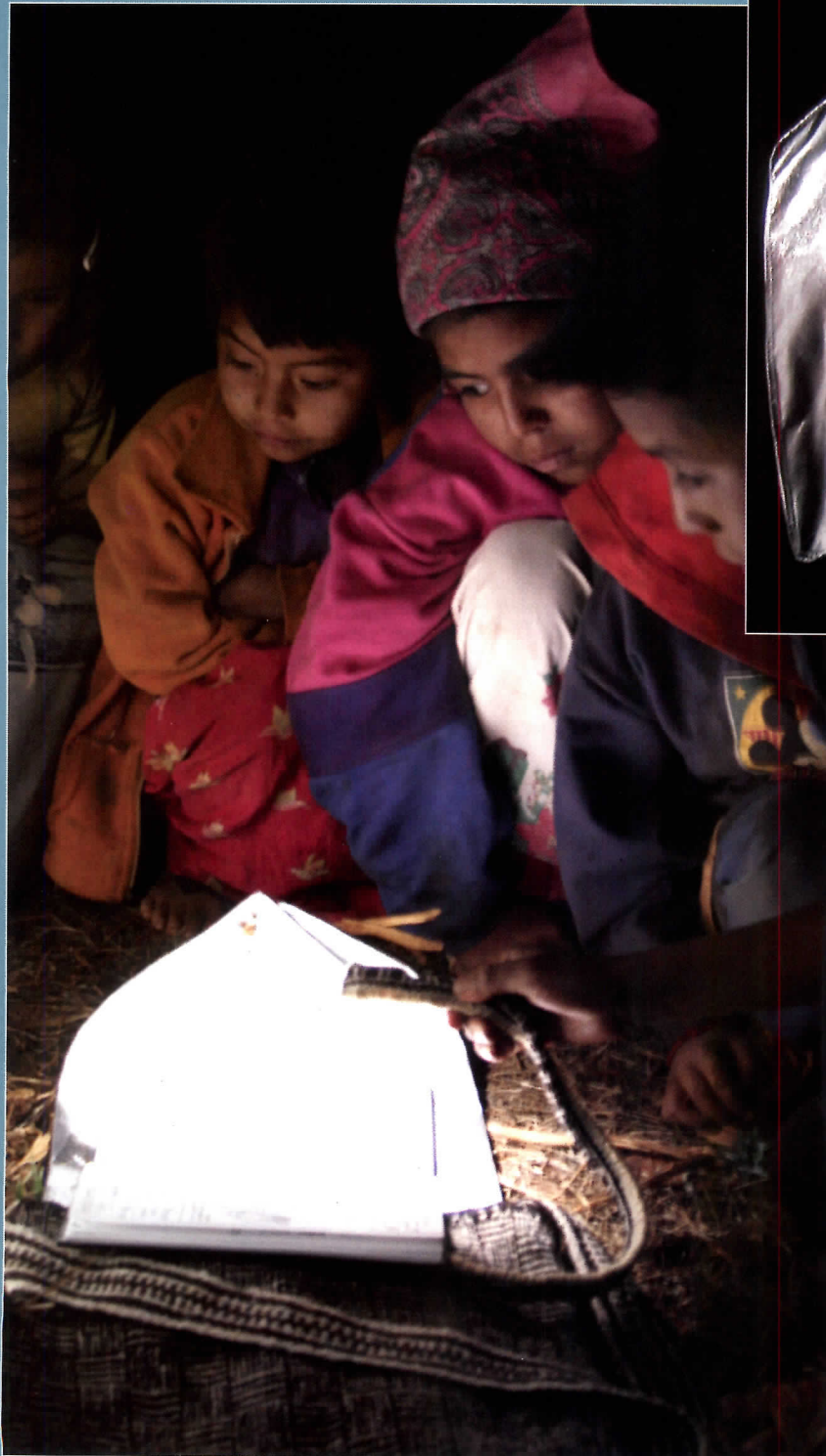


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For Smart Materials, Change Is Good

OUR TRADITION OF CLASSIFYING MATERIALS IN GIVEN CATEGORIES HAS TENDED TO OBSCURE THE POTENTIAL FOR UNCONVENTIONAL MATERIALS TO TRANSFORM ARCHITECTURE



Boston-based Kennedy & Violich Architecture and MATx have produced the Portable Light Project, which relies on flexible photovoltaic cells woven into a fabric bag to supply energy for light-emitting diodes threaded through the same bag. The photos were taken of two pilot projects, in Australia and Mexico.

By Michelle Addington

We presume that the link between intention in design and the materials we choose is deterministic: The right collection of materials will yield the desired effects both aesthetically and performatively. For example, a glazed curtain wall may be designed to visually dematerialize the exterior of the building while providing a predictable and measurable quantity of daylight to the interior. In this mode, the material is the effect, and as such, it is often foregrounded. Indeed, many of us are more familiar with the facade materials of Herzog & de Meuron's projects than we are with the projects' spatial organizations. This de facto coupling of material with effect is reflected in our classification systems, whether organized by material—metal, wood, concrete—or by end use—tile, roofing, cladding. Conventional materials are thus understood and applied as artifacts: physical, tangible, and static. Our classification systems, such as the Construction Standards Institute categories (CSI), group these artifacts into a familiar and finite set of extensively documented materials with which there is collective experience.

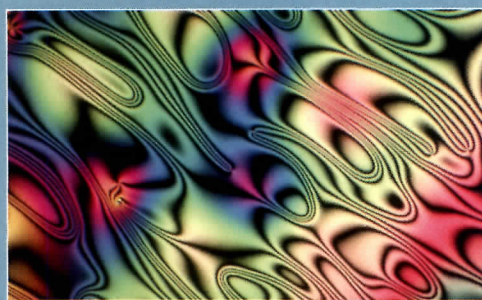
It is through this lexicon that “smart” materials have entered the profession of architecture. While definitions as to smartness abound, the most generalized one is that smart materials are transformative: The transformation may be within the material itself, as in one of its properties or its physical state, or the material could be the vehicle to transform other things, such as energy forms or the surrounding environment. These are materials, then, whose most salient descriptor is motion. Even though this is starkly counterintuitive to the inherent stasis of conventional materials, we have tried to shoehorn smart materials into our normative categories. Any smart material with a transparent or translucent state is placed in the glazing category, and any light-emitting material is dispatched to the electric-lighting category. We do this to increase our comfort level with their use. When something like an electrochromic is placed into the glazing category, we understand it and thus use it as a substitute for glass, albeit a very expensive substitute. We specify it in the same sizes and shapes as glass. We justify its expense relative to standard glazing by comparing their performance. A smart material becomes but one of many choices for a given end use.

This subordination of the material to how we usually do things often prevents us from exploiting the truly remarkable characteristics of these materials. Instead, much of the attention has been placed on demonstration. For example, installations with color-changing materials didactically demonstrate that the materials change color. In the desire to provide a visual marker of interaction with these materials, we are instead continuing to articulate them as building-scaled artifacts. The unrealized potential of smart materials resides in their instrumentality, which is a bit of a paradox: The spectacle of their transformation, the aspect that has so captivated architects and designers, is incidental.

As materials of motion, all smart materials involve an energy transfer in some form or another for transformation to take place. The type of energy that is transferred determines how the material state—temperature, pressure, density, or internal energy—will change. The quantity of energy that is transferred to produce this change is determined by the properties of the material. This relationship governs the behavior of all materials, including smart ones. In conventional materials, the properties scale the relationship between state change and energy transfer. For example, a material's specific heat (property) will determine how much heat (energy) is needed in order to change its temperature by a specified amount. From the deflection of a material under a structural load to the color that a material appears to be, the relevant material properties will produce repeatable

Michelle Addington, an associate professor of architecture at Yale University, wrote Smart Materials and Technologies in Architecture (2004) with Daniel Schodek.





results. Smart materials add a wrinkle to this predictability in that the relationship is no longer scalar or linear. A material's property might shift to another value, an energy input might turn into a different form of energy.

Depending upon what is changing and what motivates the change, we can group smart materials into four categories:

(1) A change in state produces a change in the material property. A thermochromic material reflects a different color when the temperature changes. The material state of temperature determines the material's property of spectral reflectivity. In this category, we find such things as liquid crystals (driven either by a change in temperature or chemical concentration).

(2) An energy input produces a change in the material property. A photochromic material changes its spectral transmissivity (the ability for light to pass through it) when radiation (light) transfers into the material. This category also describes electrochromics (an input of electrical energy) and many of the viscosity-changing materials.

(3) An energy input is transformed into a different energy output. A photovoltaic converts an input of radiation into an output of electricity. Most of the semiconductor-based smart materials are in this category, such as light-emitting diodes (electrical energy into radiation).

(4) A change in state produces another change in state (internal energy) that transforms properties and the energy output. Shape memory alloys are in this category: When the temperature of the alloy changes, the material undergoes a crystalline phase change (internal energy) that produces an output of mechanical energy (strain).

We begin to recognize that smart materials provide the ability to precisely design behaviors. The material becomes secondary to the effect, and if we properly map how a transformation could and should proceed, then we will discover that numerous materials are capable of producing the behaviors to yield a desired effect. Decoupling material from effect is but one challenge in working with these materials—a more difficult one is determining how to directly design for effect. An effect should be more than the production of a different color; it should result from the instrumentalization of the different color. Does the change in color reduce the ambient light levels? Does it obscure visibility? Should it activate an interior system? Could it visually change an object's apparent location in the field of view? Looking at just one behavior—the transmission of light through a transparent medium—we find that several smart materials are capable of controlling transmission, but there are significant differences in how they do so, as well as in the specific results. The spectral composition of the light might be altered, the light may be diffused or redirected, view may be diminished, and ultraviolet or infrared radiation may be absorbed or reflected. Smart glazing is often proposed as a seamless method for stabilizing interior light transmission as daylight levels change, but no material actually does this.

The smart material that has penetrated furthest into the field of architecture is the light-emitting diode, or LED. Less than five years ago, LEDs were found only in novelty applications, such as disco dance floors. White light from LEDs has recently proliferated into general, or ambient, room lighting in competition with fluorescent and High Intensity Discharge

Phase changes in liquid crystals, such as these used for LCD screens, act as on/off switches for light. The color is produced by filters placed over the liquid crystals.

(HID) systems. Although less efficient than conventional general lighting, and much more expensive, LED lighting has nevertheless been designated as a "green" technology, which has helped encourage its use.

This evolution illustrates the path taken by many smart materials as they enter into the architecture field—first demonstrative, then performative as we fold them into our normative practice.

If we could step away from standard practice and conventional applications, we would find that smart materials present unprecedented opportunities to challenge the accepted, and unquestioned, beliefs about how building systems should perform. A closer examination of LEDs would reveal their specific characteristics: narrow spectral bands, precise angles and directionality, tiny size, discrete addressability, and reliance on DC power. None of these characteristics are desirable for a general lighting system based on a wide spectral bandwidth, diffuse spreading of the light over large surface areas, and an AC power supply. The characteristics of LEDs, however, are a remarkable match for how the receptors in the eye actually perform. Minute shifts in luminance in the field of view determine our reading of depth and space, while differences in discrete wavelengths determine how we recognize figures. Lighting design for the eye rather than for the building would result in radically different locations and distribution of LEDs, away from the ceiling and discretely placed within certain angles of view. Architects would be able to "script" the view field, and in so doing, meet needs-enhanced vision with dramatic reductions in energy use.

The Portable Light Project, by Sheila Kennedy, with Boston-based Kennedy & Violich Architecture and MATx, demonstrates the instrumental mating of material behavior to phenomena. Flexible photovoltaics, woven into cloth bags, produce DC power that then directly powers LEDs embedded into the same bag. The bag can be unfolded into several configurations depending on the quality of light needed and where it is needed. The project leverages the inherent behaviors of the individual smart materials to yield results that are direct, discrete, transient, and local. Lighting that is designed for the use and the user, rather than for the building, challenges the generic building systems we have tried to force-fit smart materials to engage. To truly exploit these materials, we must not only understand their specific behaviors but also the phenomena they act upon.

Developed as engineering materials, smart materials are constantly emerging, evolving, and rapidly becoming obsolete. When we background the material, using it instrumentally rather than performatively, we decouple material from effect. Any number of materials can manipulate any number of behaviors to produce a desired effect. Designing to manage transient phenomena breaks the hegemony of conventional building materials and systems, allowing many more materials to enter our field. It does, however, ask that architects be willing to step into unknown territory and let these materials teach us lessons about how things work. ■

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Technicalities

A Prague stairwell's DNA structure revealed

By David Sokol

When commissioned to design the facade and interior of the Institute of Molecular Genetics for the Czech Academy of Science, the Prague-based firm Studio P-H-A decided to add some bling to biomedicine. Responding to the standard-issue rectilinear volume designed by fellow Czech firm Atelier Ypsilon, architects Jan Sesták and Marek Deyl appended a glittering steel staircase that takes the form of DNA's double helix.

The interior plan of the lab building "is very economical and rational, without any significant centralized space," Sesták explains, so the architects at Studio P-H-A decided to emphasize the interior's best feature: a circulation core topped by three off-the-shelf skylights. "The chief aim was to bring daylight as far as the ground level" of the six-story interior, Sesták says, adding that in the absence of more formal social spaces, daylight would induce resident scientists to gather in the generous stairwell.

The architects determined that hanging stairs with gridded stainless-steel treads and risers would maximize light penetration. The so-called "poro-grill" was water-jet-cut from sheets and heat-forged. Usually, this kind of stair system is hung with a frame that cradles the steps and keeps feet from landing out of bounds, but Sesták and Deyl eliminated this step of fabrication to avoid the visual obstruction.

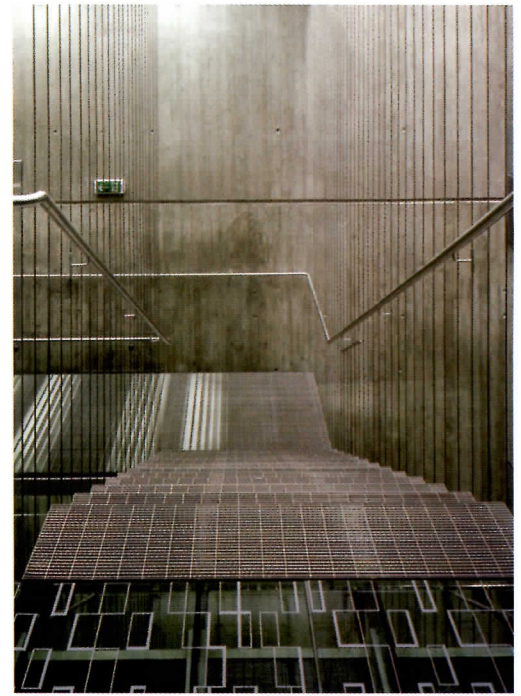
Instead, Studio P-H-A secured the perimeter by specifying a proprietary Carl Stahl system of steel cables that runs the entire height of the building. Each 0.2-inch tie rod is attached to the ceiling and to stainless-steel tensioners anchored with chemical adhesive to the reinforced-concrete foundation. With slim stainless-steel handrails connected to the tie rods, the cables effectively serve as balusters. The railings are reinforced via additional attachments to the concrete shaft surrounding the stair. And where the railing trails off into intersecting corridors, bonded glass replaces the Carl Stahl balustrade. "Glass was measured on-site and specially manufactured for each position, since the precision of the reinforced-concrete structure was not sufficient," Sesták points out.

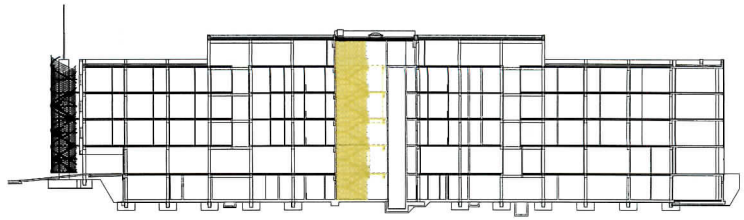
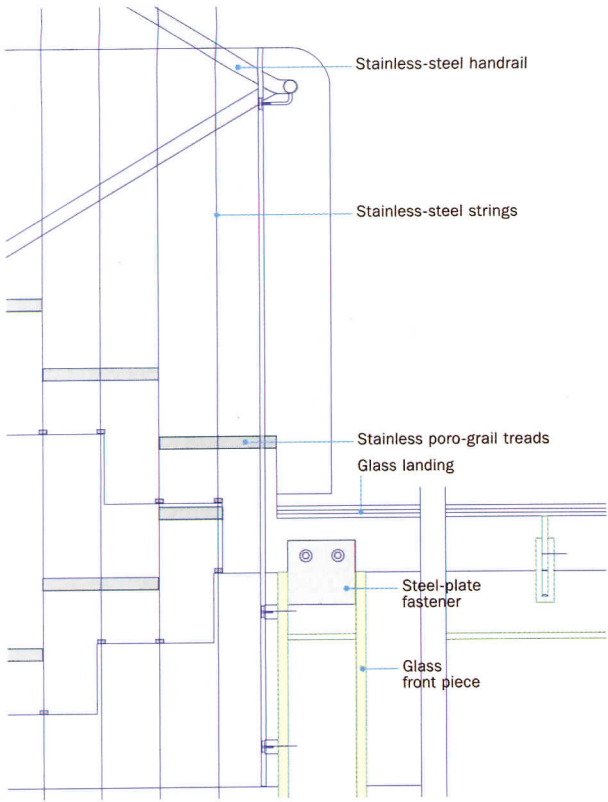
In the spirit of transparency, stair landings of Conex bonded safety glass rest within custom-made steel girders. "We desired to give a 'technological' impression to the entire structure, which would correspond with the exactness of a scientific institution," Sesták says. To invoke the correspondence more literally, the glass landings are printed with an antislip grid in a pattern derived from DNA-sequence-registration-machine outputs.

Institute employees began moving into the new building in January. Today, a double-layer Barrisol membrane on the skylights diffuses the intense sun, transforming the light into a pleasant blanket flooding the diaphanous stair. Sesták admits the installation's astounding visual lightness did inspire early feelings of uncertainty among some building users, who were, perhaps, expecting Studio P-H-A's contribution to be as conservative as the new structure containing it, but the employees now embrace it. ■

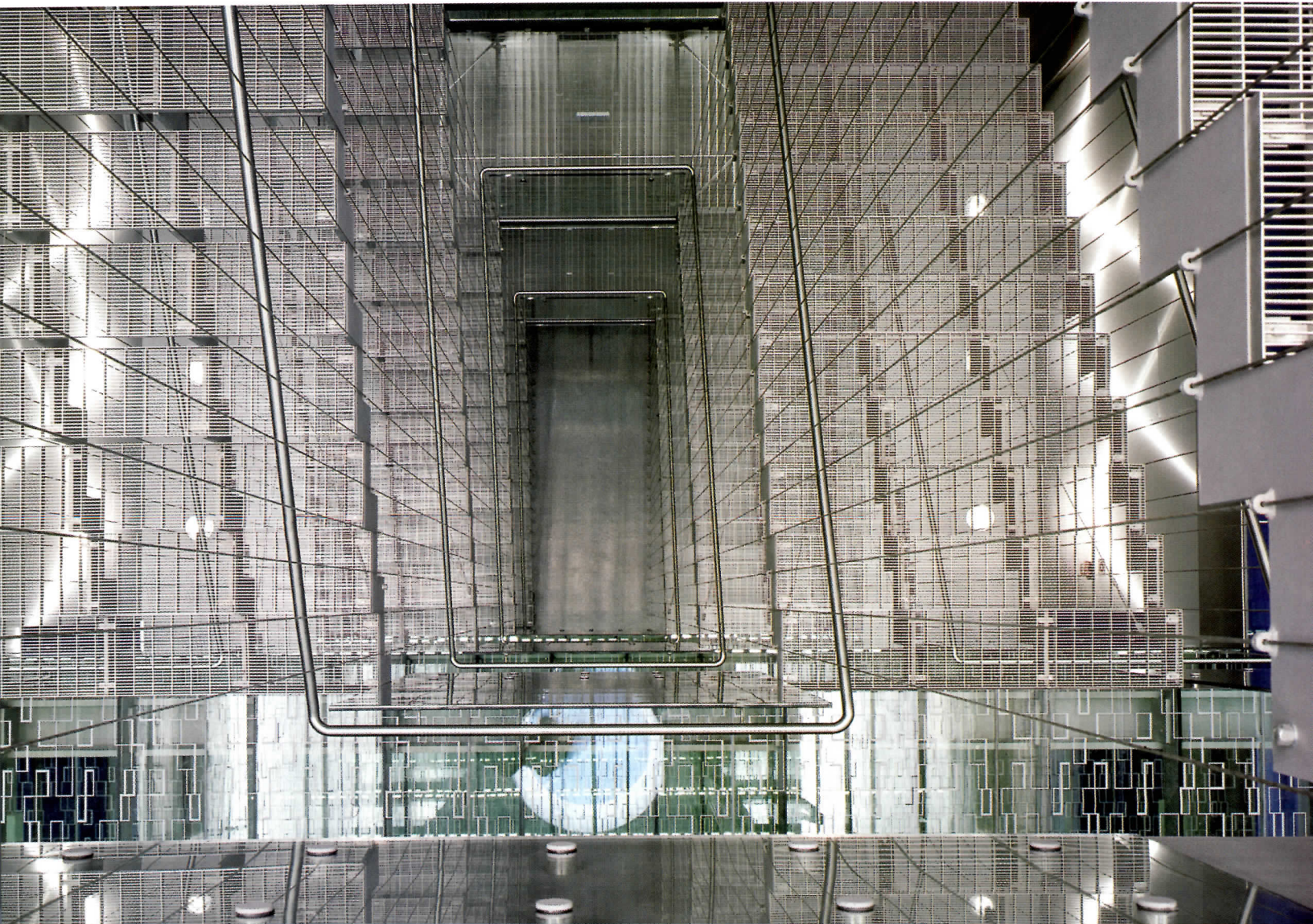
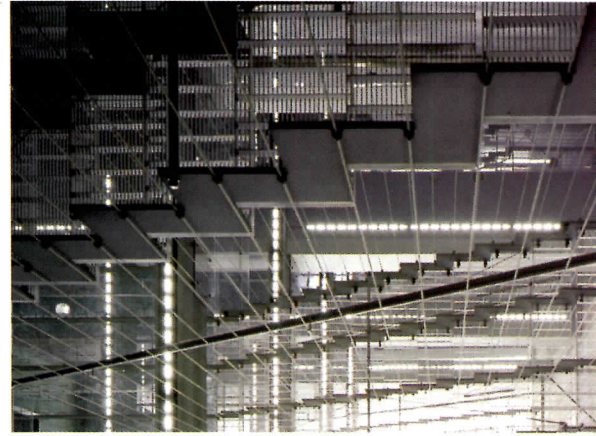
David Sokol is a freelance writer and frequent contributor to RECORD.

The antislip grid of the glass landings (right) is arranged in the manner of the output from a DNA sequence registration machine.





The stairwell's stainless-steel wires (right) run the full length of the building and are held in tension to support the stair's structure. This is especially evident in the bird's-eye view below.



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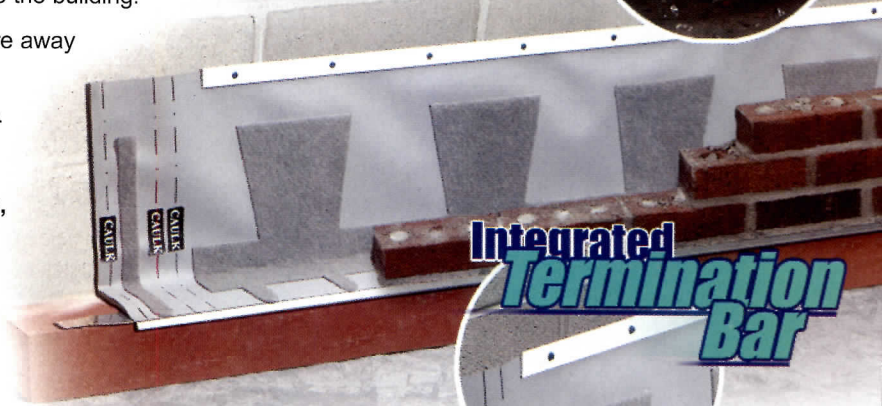
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Product Focus **Contract Carpeting**

Today's contract carpeting, whether broadloom or modular, is expected not only to focus on **pattern, texture, or color**, but to offer the highest green pedigree possible. A range of new collections, from **bold hospitality to classic corporate**, are featured this month. *Rita Catinella Orrell*



Clockwise from left: Zanzibar collection, Durkan Hospitality; Sensory collection, Karastan Contract; Infatuation collection, Durkan Commercial; Encycle PVC-free modular-tile-backing system.

Carpet brands introduce new textures, colors, patterns, and a sustainable backing system

A parent company of six brands, The Mohawk Group includes Lees Carpets, Durkan Commercial, Durkan Hospitality, Mohawk Commercial, Karastan Contract, and Bigelow Commercial. Each brand introduced new broadloom and/or carpet-tile products at this year's NeoCon trade show in Chicago. While there were too many introductions to feature them all, we present a few of the highlights.

Months of research on the sense of touch and how it communicates inspired architect/designer Shashi Caan to create the Sensory collection, one of three new introductions from Karastan Contract.

Spun from high-quality yarns, Sensory plays with various textures and constructions and maintains heavy face weights for greater depth and improved performance characteristics. With Sensory, Karastan blended wool and synthetic fiber for the first time, which helped to enhance the appearance of the collection and bring down the price point.

For Durkan Commercial's Infatuation collection (one of three new lines), the carpet's bold patterns and deep colors, rather than texture, are the main focus. Designed for corporate, retail, and large public-space applications, Infatuation

broadloom features three patterns in a palette of 15 colors.

Durkan Hospitality's newest print collection, Zanzibar, is intended to capture the spirit and artistry of the Far East. Ideal for a variety of hospitality interiors, from traditional settings to transitional contemporary layouts, the collection includes 20 styles: three rug elements, one 6' round medallion, nine broadloom patterns of varying scale, six design borders, and one corridor runner.

The Mohawk Group claims that Encycle, its patent-pending, PVC-free modular-carpet-backing system, is the only carpet tile designed with

three thermoplastic layers and zero water-based components, enabling complete recyclability back into itself without separation. The new backing also incorporates 35 percent preconsumer recycled content by total product weight and utilizes 28 percent less virgin raw materials. Encycle is not Mohawk's only sustainable venture—several Mohawk Group products are CRI Green Label Plus—certified. The Mohawk Group, Kennesaw, Ga. www.mohawk-group.com **CIRCLE 210**

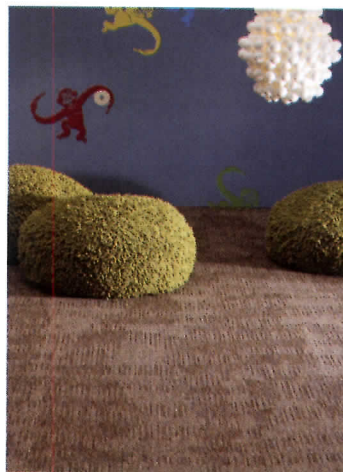
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Products Contract Carpeting



◀ Well-dressed floors

Shaw's redesigned Dressed to Kill collection includes 12 tile options and four broadloom patterns and features both Eco Solution Q fiber and EcoWorx tile backing. Both fiber and backing are fully recyclable in a closed-loop, cradle-to-cradle process. Tiles designated as "Vivid" feature bright colors with contrasting accent stripes and are intended for workplace settings; tiles with "Lux" designation are for professional service applications and feature a more monochromatic palette (left). Shaw Contract Group, Dalton, Ga. www.shawcontractgroup.com **CIRCLE 211**



◀ Corporate coverage

The Never Too Much modular carpet line from Designweave includes four styles in nine classic colorways that are ideal for corporate interiors. The tile is made of recycled and recyclable Eco Solution Q fiber and EcoWorx backing. It is also available with EcoLogix recycled cushion backing. As part of Designweave's DesignTEN Quick Ship Program, orders up to 2,500 square yards will ship within 10 business days from credit approval. Designweave Commercial Carpet, Cartersville, Ga. www.designweave.com **CIRCLE 212**

▶ Bridging styles

Two coordinating styles with a hand-crafted appearance from Bolyu Contract offer color and texture while serving as a bridge to other Bolyu styles. Connex, a multilinear geometric and Sideways, a horizontal stripe, create a harmonic medley of pattern, texture, and color with a modern twist on classic designs. Both are ¾ gauge, 100 percent ultra type 6.6 nylon. Nine colorways in each style include teals, gray and yellow greens, red umber, and persimmon. Beaulieu Commercial, Adairsville, Ga. www.bolyu.com **CIRCLE 213**



▶ Layered effects

Milliken's new Intervals Collection uses the manufacturer's exclusive Convergence technology to create a way to layer, pattern, and texture with interesting effects. The collection takes its color cues from Perfect Pitch (offered in a range of 34 colors), a tone-on-tone small geometric texture with a near solid appearance. Soundwave Intervals' one meter standard (3.28') and 20" optional modular format aids in easy transportation and storage, simplified installation, and distribution-free maintenance. StainSmart, Milliken's patented stain- and soil-resistance technology, is standard. Milliken Contract, LaGrange, Ga. www.millikencarpet.com **CIRCLE 214**



▼ Naturally American

Even Keel, a new broadloom carpet from Bentley Prince Street, offers a classic, structured texture for commercial interior environments. Even Keel's 12 colorways reflect the organic, rich hues seen in nature by the first American artisans—from natural corn to forest green to the red of autumn leaves. The product is available certified to the stringent California Gold standard required for State of California carpet purchases and as a Scientific Certification Systems' Sustainable Choice Gold/Environmentally

Preferable Product. As a piece dye product, Even Keel is efficient in its manufacture and allows for custom-color minimum orders of only 50 square yards. Bentley Prince Street, City of Industry, Calif. www.bentleyprincestreet.com

CIRCLE 215



◀ Coming around again

The Acadia Collection is made of high-performance Natiq Envirowork 30 nylon carpet fiber from Nylene. Natiq Envirowork 30 branded Nylon 6 contains a minimum of 30 percent recycled content and is manufactured in a closed-loop, fiber-to-fiber recycling manufacturing process in the longest continuously running depolymerization facility in North America. Products produced with Natiq contribute toward LEED certification and are SCS-certified. The collection features two patterns: Acadia Texture, a 46 oz. tip shear, and Acadia Stripe, a cut/uncut tailored linear pattern. Fortune Contract, Dalton, Ga. www.fortunecontract.com

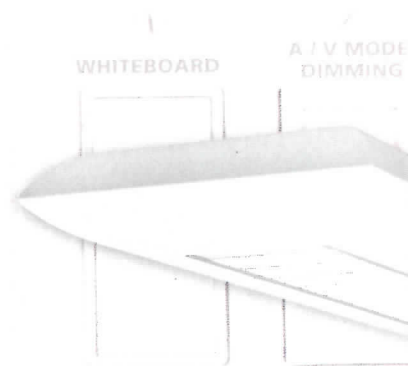
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Product Briefs

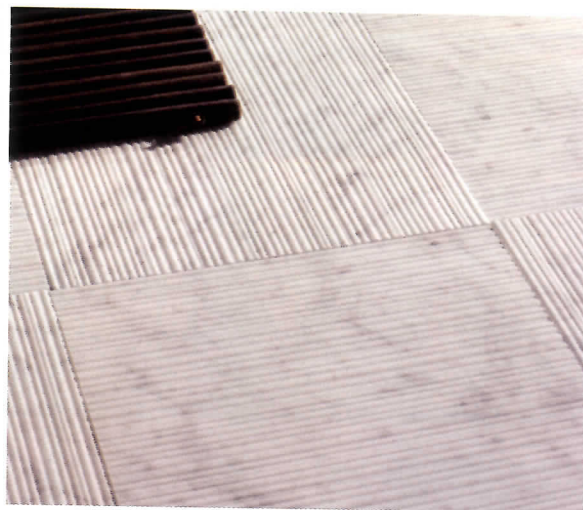
Each May, New York City officially turns into design central during the **International Contemporary Furniture Fair**. Here are some highlights. *R.C.O.*

ICFF

► Modern stone bas-relief

Italian marble-and-stone company Alfredo Salvatori's Bamboo collection interprets the refinement of the ancient marble bas-relief tradition into contemporary production.

Featuring marble or limestone slabs carved with a series of close and parallel grooves with rounded edges, the collection includes Bianco Carrara (right), Grigio Versilia, Travertino Chiaro, Crema d'Orcia, and Grigio Saint Denis stone. Dimensions are approximately 3.8" square, 3.8" x 11.5", 11.5" square, and 11.53" x 23". The slabs may be used for interior or exterior floor and wall applications. Alfredo Salvatori, Querceta, Italy. www.salvatori.it **CIRCLE 217**



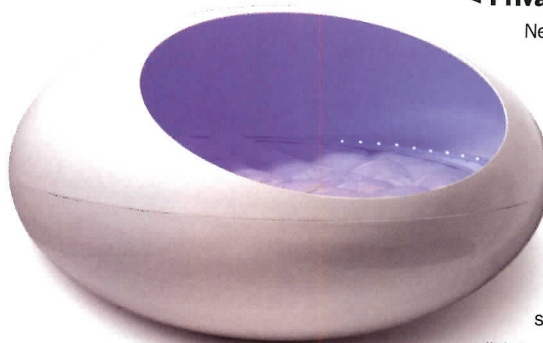
◀ Private environment

Nevada-based architect Alberto Frias exhibited his Transport Perceptual Pod, a "sensual light, sound, and space environment," at the show this year.

Originally developed for the architect's thesis project at the University of New Mexico, the Pod is intended to be a commissioned piece of functional art, with each unit signed and numbered. The handmade, oval composite-fiberglass structure can be a bed, a meditation

space, or both. It comes with a full spectrum LED lighting system, a sound system, water mattress, and cushion to allow for a range of custom experiences. Starting at \$10,000, the

pod is available for purchase directly through Frias (www.albertofrias.com) or at Twentieth in Beverly Hills. Twentieth, Beverly Hills, Calif. www.twentieth.net **CIRCLE 218**



► Fabric of record

DesignTex has introduced Material Matters, the third collection of textiles to come from its ongoing relationship with the Solomon R. Guggenheim Foundation. Modeled on sound-based contemporary artworks in the Guggenheim's collections, the Sonic Fabric material, invented by artist Alyce Santoro, is constructed of 49 percent recycled audiotapes. Giving new meaning to the description "loud fabric," multilayered audio tracks have been recorded into the tape of the fabric and sounds in the weave can be heard by drawing a tape head over its surface. Available in five colors, the fabric reaches a surprising 80,000 double rubs. DesignTex, New York City. www.designtex.com **CIRCLE 219**



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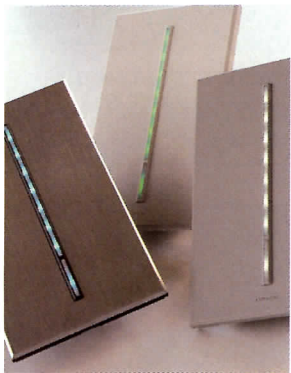
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▲ Well-managed furniture line

Philly-based furniture company Iannone has built its 2007 product line around a core material—FSC-certified birch plywood. In addition to being harvested from managed forests, the plywood is formaldehyde-free; finished with a low-emission, UV-cured topcoat; and rotary cut, a process that can yield the most veneer from a log. The furniture exteriors incorporate an array of green materials, including Kirei board (made from the reclaimed stalks of the sorghum plant), bamboo, cork, veneered plywood, and hardwoods from managed forests. Shown here, the Signature 1.0 Console is made of bamboo and solid ash doors (left), and the Dandelion Tall Graphic Console (right) features a Kirei and gloss-white-laminate front. Iannone, Philadelphia. www.iannonedesign.com **CIRCLE 220**

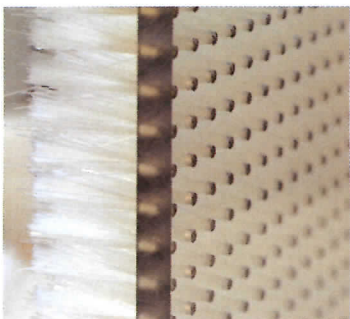


◀ Touchy lighting control

Suitable for both commercial and residential applications, the Vierti architectural touch dimmer from Lutron features adaptive LEDs that brighten when touched to indicate the dimmer is responding and then glow softly when at rest. When at rest, the user can still easily identify the room's light level without the LEDs being fully illuminated. Users touch the highest point of the panel for 100 percent bright light or the lowest point for 1 percent light. In addition to multi-location dimming, Vierti also offers the user audible feedback—a soft click to confirm the user's touch. The dimmers offer interchangeable LEDs in blue, green, or white, and a variety of wall-plate colors and finishes. Lutron plans to begin shipping the product next month. Lutron Electronics, Coopersburg, Pa. www.lutron.com **CIRCLE 221**

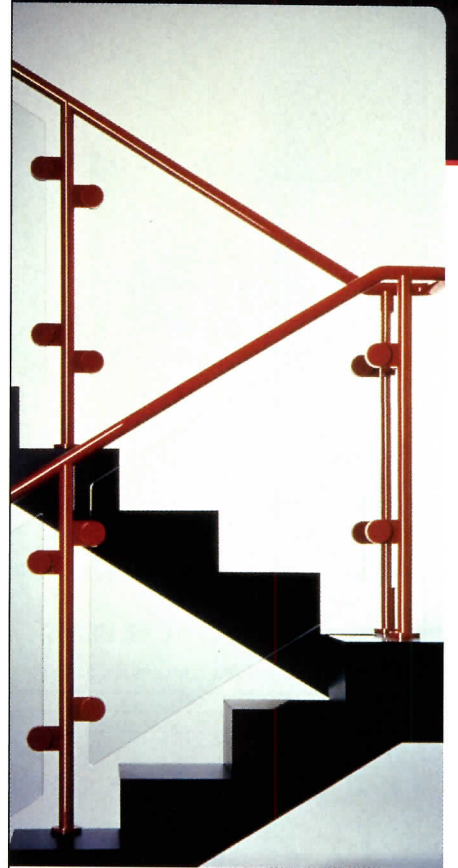
▼ Materials maven

Robin Reigi, a material company based in New York City, took home an Editor's Award for Materials at the show. The Robin Reigi booth featured the new Smooth Wall exhibit system by GES Expositions and launched seven new product innovations within the booth itself. Among the materials on display were Brush "tiles" (left) from the Braun Brush Company, tactile decorative elements that can be carved to achieve topographical or modular effects. The tiles can be made in a range of color and fiber choices; custom projects include furniture accents, sculptural icons, and feature walls. Also on display was the Smith and Fong Durapalm brand Palm Woven material (right), a richly textured seamless wall cladding made from reclaimed coconut palm wood. Robin Reigi, New York City. www.robin-reigi.com **CIRCLE 222**



For more information, circle item numbers on Reader Service Card or go to architecturalrecord.com/products/.

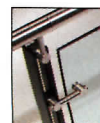
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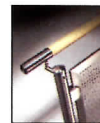
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Product Resources Literature

Ecofriendly ceiling catalog

Sustainability is the theme of Armstrong's new 276-page catalog of ceiling systems. Green attributes are highlighted on each product page, and the catalog itself is printed with vegetable-based inks on FSC-certified paper. Other features include a photo gallery and nine tabbed product sections. Armstrong World Industries, Lancaster, Pa. www.armstrong.com/ceilings **CIRCLE 223**



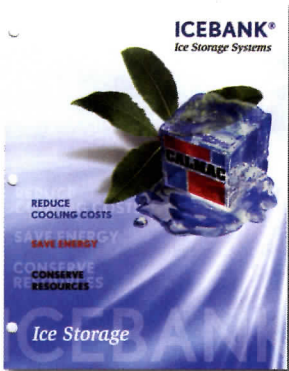
Synthetic millwork lit

Fypon, a manufacturer of synthetic millwork, has printed a brochure, catalog, and plan book showcasing its expanded William E. Poole Collection of cupolas, balustrades, and other architectural elements. Styles range from Southern Classic to New England Colonial to Palladian Italianate. The company says its products are impervious to decay, insects, and warping. Fypon, Archbold, Ohio. www.fypon.com **CIRCLE 224**



A guide to ice cooling

A new brochure by Calmac, *Icebank Ice Storage Systems*, describes how ice can be generated and stored at night and then used to cool buildings the following day. The six-page publication also includes a list of companies using the technology and explains how Icebank can help architects earn LEED credits. Calmac Manufacturing Corp., Englewood, N.J. www.calmac.com **CIRCLE 225**

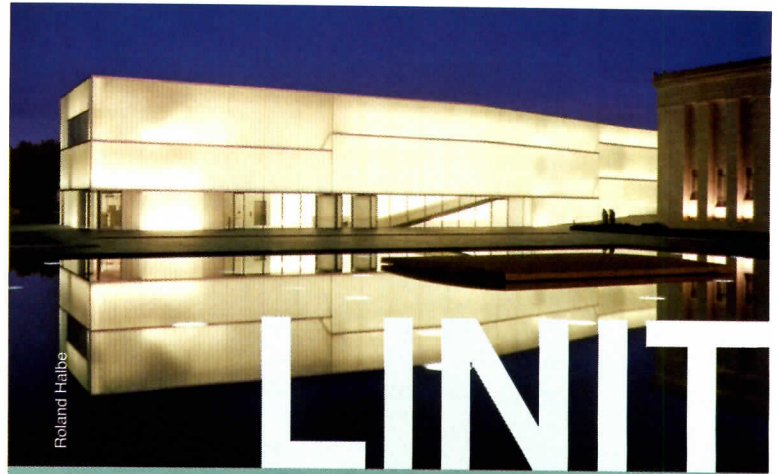


Bathroom beauties

Hansgrohe has created a 106-page catalog with descriptions of technological advancements and a generous number of full-page color photographs showcasing its bath faucets and shower items in lifestyle settings. The soft-cover catalog also presents silhouette-style images of shower panels, body sprays, wall bars, and other products. Hansgrohe, Alpharetta, Ga. www.hansgrohe-usa.com **CIRCLE 226**



For more information, circle item numbers on Reader Service Card or go to architecturalrecord.com/products/.



channel glass

PROJECT: The Nelson-Atkins Museum of Art, the Bloch Building, Kansas City, MO

OBJECTIVE: Construct a bold museum addition complimenting the original classical, columned building. Allow an unobstructed view of the stately main entrance and the expansive Kansas City Sculpture Park. Provide underground galleries suffused with natural light.

SOLUTION: Over 100,000 sqft of custom Lamberts LINIT channel glass form five lenses that punctuate the hills, pouring daylight into the galleries below. LINIT's exclusive Solar® texture, low iron channels diffuse the sunlight, enhance the galleries' interior lighting, and form immense glowing night sculptures. Soaring to heights of 22', every channel is SGCC certified tempered and heat-soak tested. Successful execution of architecture as art; immediately one of the most recognizable buildings in the world.

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Product Resources On the Web

www.danskina.com

Thanks to a simple layout with vibrant images, browsing through the Web site for this Amsterdam-based maker of modern rugs is a pleasure. Visitors can sort through the company's collection by style and color, zoom in on photographs, and download helpful information sheets with technical details and maintenance tips. The project gallery shows Danskina rugs in assorted venues, from a Moroso showroom in Italy to a model apartment in Portugal. The site also features an exceptionally creative store locator.



www.flexibilityconcepts.com

This manufacturer of flexible metal tracks has added content to its dense Web site, such as a calculator that determines linear footage for a specified curved application. Other site features include engineering drawings, installation instructions, and a "products in use" photo gallery. Products are divided into



three categories—commercial, residential, and deflection—and descriptions are accompanied by drawings showing isometric and alternate views. The site's home page, with flashing images, is very dynamic, but the white text is a bit difficult to read.

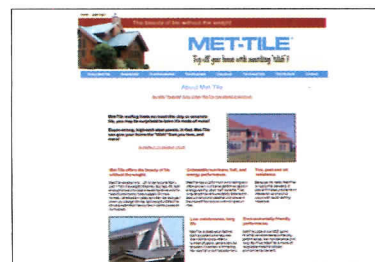
www.rolandsimmons.com

The new Web site for Roland Simmons, a contemporary lighting designer, is clean, attractive, and thin on words. Beyond the store locator, highlights include appealing pictures of the designer's three lamp models—the Lumalight, Kalon, and Trovato—in varying sizes, accompanied by a measurement chart that shows how tall the lamps are compared to a human figure. The site also includes an account set-up area and profiles on Simmons and Interfold, which produces the Wyoming-based designer's lamps.

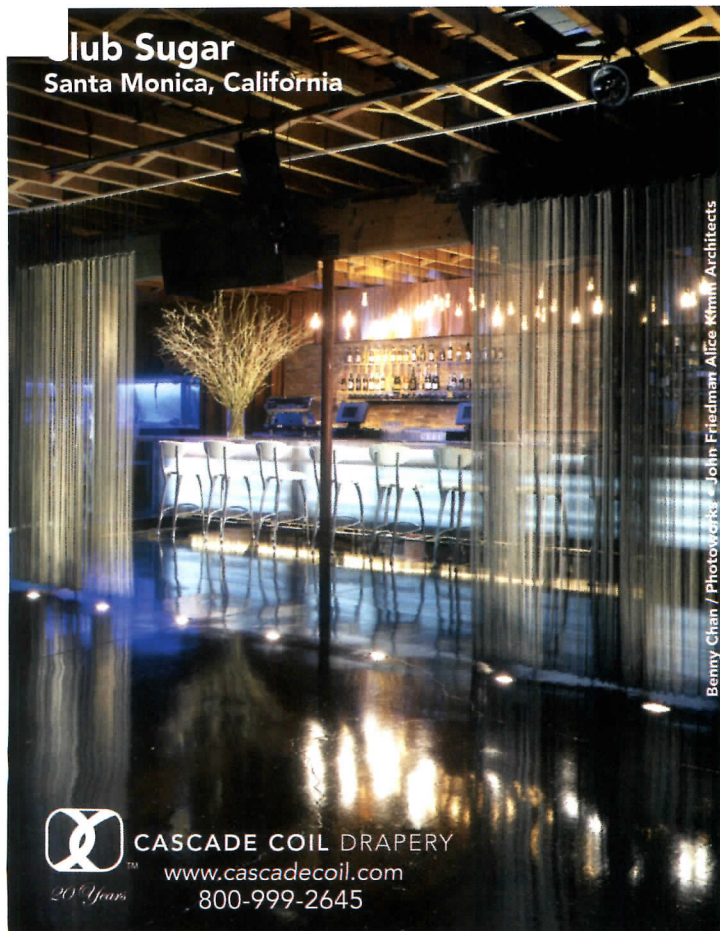


www.met-tile.com

On its newly redesigned Web site, Met-Tile presents ample information about metal-tile roofing panels for residential and nonresidential customers. Features include a photo gallery, extensive list of distributors, detailed technical information, downloadable literature, testimonials, and



a roofing profile quiz (to determine if a roof is metal-tile compatible). Visitors can also learn about the company's new "cool roof" line, which meets Energy Star guidelines. The site isn't very stylish, but it is well organized and easy to navigate.



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Dates & Events

New and Upcoming Exhibitions

2007 Design Week: Design September Brussels

September 9–30, 2007

Following the example set by other major cities such as Paris, Berlin, Stockholm, London, and Amsterdam, Brussels has established itself as a stronghold of design in Europe. A milestone event for amateurs, Design September is a festival that combines almost 30 separate events all over the city. Visit www.designseptember.be.

Provoking Magic: Lighting of Ingo Maurer New York City

September 14, 2007–January 27, 2008

A retrospective of German lighting designer Ingo Maurer's four decades of work, the exhibition will feature site-specific lighting installations designed for particular spaces in the Andrew Carnegie Mansion, home of the Cooper-Hewitt Museum, as well as prototypes and commissioned one-off pieces, and photographs and films documenting Maurer's illumination projects around the world. At Cooper-Hewitt, National Design Museum. Call 212/849-8400 or visit www.cooperhewitt.org.

Historic Ramsey Hill House Tour: Decades of Design: 150 Years of Ramsey Hill Architecture St. Paul, Minn.

September 16, 2007

This decade-by-decade walking tour of houses in a historic neighborhood will feature the interiors of homes, some of which are located along Summit Avenue, the longest and best-preserved Victorian boulevard in the country. Most of the houses in the area were built between 1880 and 1910 and encompass various architectural styles, from Queen Anne to Tudor Italianate and Richardson Romanesque. Visit www.ramseyhill.org.

Ongoing Exhibitions

Hodgetts + Fung: kī-ār'-skoor'ŷ Los Angeles

Through September 30, 2007

A new site-specific installation in the SCI-Arc Gallery by Los Angeles-based firm Hodgetts + Fung. The exhibition deals with visual perception,

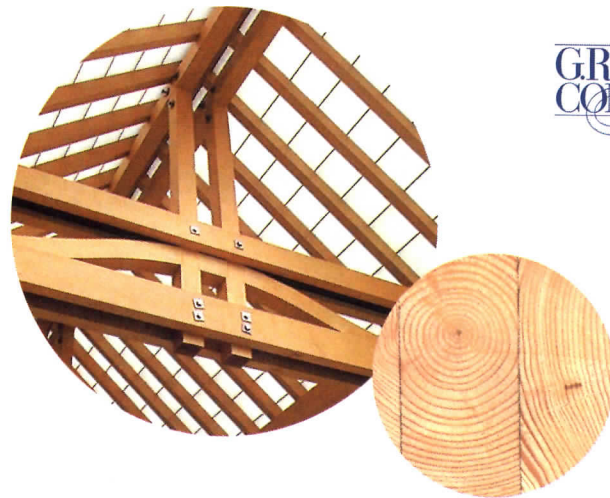
evoking traditions dating back to its namesake, chiaroscuro, the Renaissance technique of using light and shade in pictorial representation.

Instead of controlling the gallery space using physical, material constructs, *kī-ār'-skoor'ŷ* uses a dematerializing process to better understand the subtle nature of spatial perception. At SCI-Arc Gallery. Call 213/613-2200 or visit www.sciarc.edu.

California Design Biennial 2007 Pasadena

Through September 30, 2007

This exhibition is a juried selection of the most original and important design produced in California over the past two years and is the only show that highlights the unique achievements of California designers. Fashion, furniture, transportation, consumer products, and graphic design



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Dates & Events

will be on display—all selected by a jury of renowned design professionals. At the Pasadena Museum of California Art. Call 323/936-1447 or visit www.caapr.com.

Me, Myself & Infrastructure: Private Lives and Public Works in America Chicago

Through November 16, 2007

Featuring a New York coffee shop, a comfortable living room, a city bus stop, and a “big box”-type store, this exhibition invites visitors to explore

how their decisions—whether it’s buying a home in a new subdivision or shopping at Wal-Mart—shape the built environment. At the Chicago Architecture Foundation. Call 312/922-3432 or visit www.architecture.org.

Lectures, Conferences, and Symposia

●AIA150

The 2007 Western Mountain Region Conference: Dreamscapes to

Greenscapes

Incline Village, Nevada

September 12–16, 2007

The conference will promote sustainable design and energy conservation in the region. Featured speakers will be Edward Mazria, founder of Architecture 2030, and R.K. Stewart, the national president of AIA. The conference will include an exclusive green trade show and expo with demonstrations. At the Hyatt Regency Resort. For further information on expo booths, call 775/827-4441. For more about the WMR conference, visit www.aiann.org.

Dwell on Design Conference + Exhibition: Building Community in the Modern World San Francisco

September 14–16, 2007

All aspects of the built environment will be included, from urban redevelopment projects to co-housing and single-family dwellings, farmers markets to public art programs, as well as diverse social and economic interactions that define the world in which we live. A hands-on marketplace will demonstrate top products and services inspired by modern design. At the Concourse Exhibition Center. Visit www.dwellondesign.com.

The London Design Festival London

September 15–25, 2007

Now in its fifth year, the festival has become a fixture on the international creative calendar. With more than 200 projects and audiences of 300,000, it has grown to be of great importance in the design world. Festival projects can be found in more than 150 different venues. This year, the Festival’s hub is the Southbank Centre. Call 020 7739 3814 or visit www.londondesignfestival.com.

Sustainable Excellence: Sixth International Conference on Courthouse Design

Brooklyn

September 26–28, 2007

A discussion among world leaders in the justice field regarding innovation in planning, design, technology, and research for courthouses. The conference will address a broad spectrum of issues that affect the planning and design of courthouses. At the Marriott. Call 800/242-3837 or visit www.aia.org/aaj.

Competitions

Calafia Sketchbook Design Competition

Deadline: September 1–December 1, 2007

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like in Califia, a proposed next-generation ecocity. People worldwide are invited to enter a conceptual sketch conveying their view of "slices-of-life" within Califia, revealing smarter ways of building, powering, and maintaining the urban fabric. Visit www.greencenturyinstitute.org/tellmemore.html.

Design Competition for Creative Preservation of Rudolph's Riverview Buildings

Deadline: September 14, 2007

The Sarasota Architectural Foundation is holding a competition for a design and financial plan to provide alternative use and preservation of Paul Rudolph's historic buildings at Sarasota's Riverview High School, built in 1958, which are scheduled for demolition. The foundation is seeking up to five qualified architect and developer teams with demonstrated experience in creative planning and implementation of projects that include the use of historic buildings. Call 941/365.4723, 415/453-3966 or visit www.sarasotaarchitecturalfoundation.org.

Self-Sufficient Housing/ The Self-Fab House: 2nd Advanced Architecture Contest

Registration Deadline: September 17, 2007

An international summons to architects, designers, and students from around the world, inviting proposals for the construction of self-sufficient dwellings with an emphasis on exploring people's capacity to construct their own homes. Visit www.advancedarchitecturecontest.org.

Solar Decathlon 2007

Washington, D.C.

October 12-20, 2007

The Solar Decathlon consists of 20 university teams competing on the National Mall to design, build, and operate the most attractive and energy-efficient solar-powered home. This year, teams have been selected from the United States, Puerto Rico, Germany, Spain, and Canada. On the National Mall. Visit www.solardecathlon.org.

Portland Courtyard Housing Competition: Creating Spaces for Families, Community, and Sustainability in the City

Deadline: October 24, 2007

This competition will explore possibilities provided by housing oriented to shared courtyards as an additional infill housing type for Portland, Oregon. Architects, landscape architects, builders, devel-

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Programs

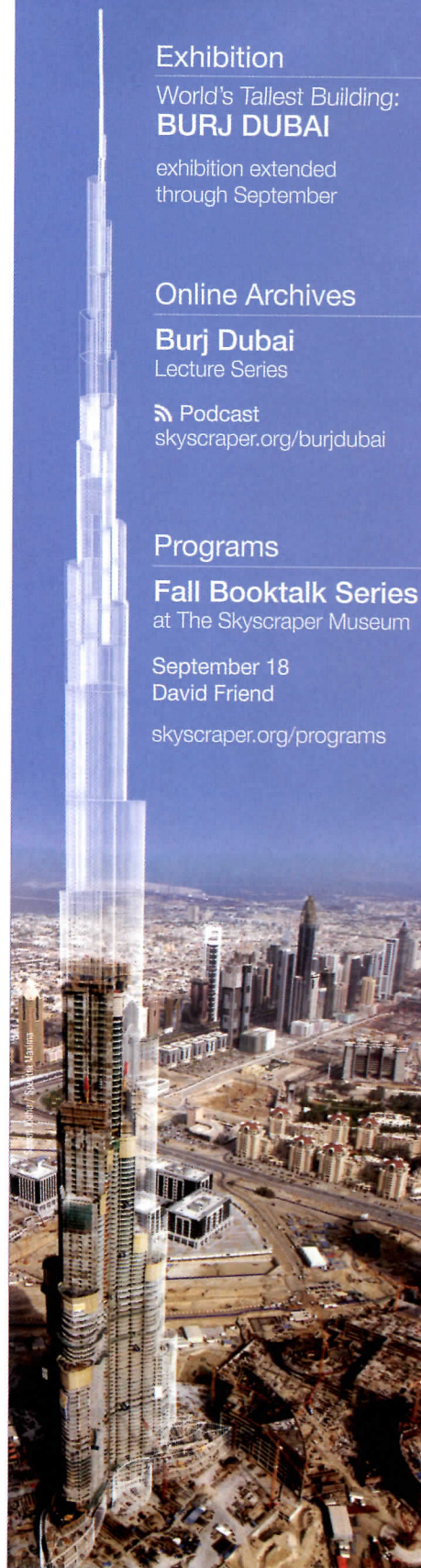
Fall Booktalk Series

at The Skyscraper Museum

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David Friend

skyscraper.org/programs



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Dates & Events

opers, students, and others interested in the competition are eligible. Multidisciplinary teams are encouraged. Visit www.courtyardhousing.org.

The Buckminster Fuller Challenge

Deadline: October 30, 2007

Established to catalyze the vanguard of a global design revolution, the Challenge will award a single \$100,000 prize annually to support the development and implementation of a solution with significant potential to solve the world's most pressing problems in the shortest possible time while enhancing the Earth's ecological integrity. Visit www.challenge.bfi.org.



CAE Educational Facility Design Awards

Submissions Deadline: December 7, 2007

The CAE Educational Facility Design Awards program is a marketplace of ideas. Through this forum, the committee disseminates quality ideas on educational-facility planning and design to clients, architects, and the public. This awards program is an opportunity to engage in critical evaluation and experimentation in the context of clients and their needs. Visit www.aia.org/cae.



The American Institute of Architecture Students' (AIAS) 2nd Annual National Student Design Competition

Deadline: November 5, 2007

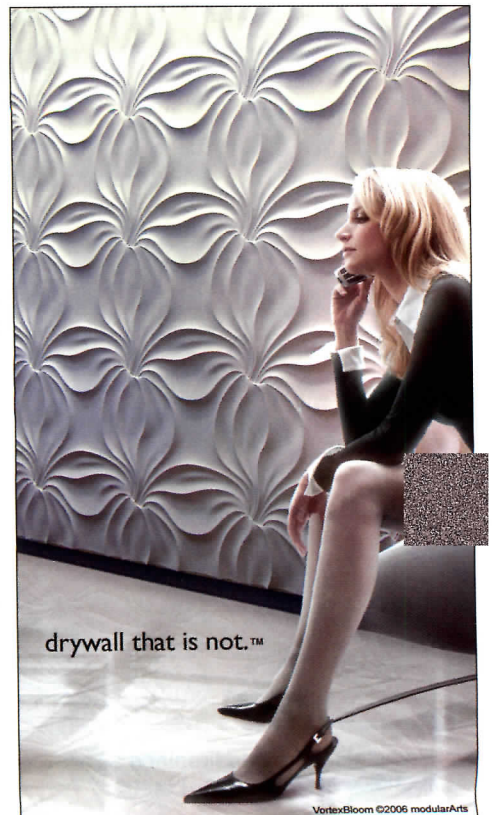
Developed for advanced students, this competition will challenge participants to design a pediatric outpatient rehabilitation center and family support facility utilizing architectural aluminum building products and systems. For more information, visit www.aias.org/kawneer.

Palladio Awards

Deadline: November 15, 2007

This program recognizes individual designers and/or design teams whose work enhances the beauty and humane qualities of the built environment through creative interpretation or adaptation of design principles developed through 2,500 years of the Western architectural tradition. Call 718/636-0788 or visit www.palladioawards.com.

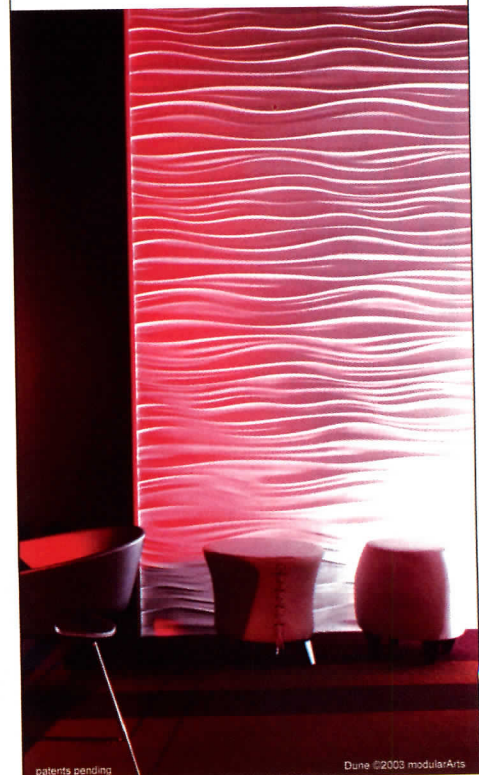
E-mail event and competition information two months in advance to elisabeth_broome@mcgraw-hill.com.



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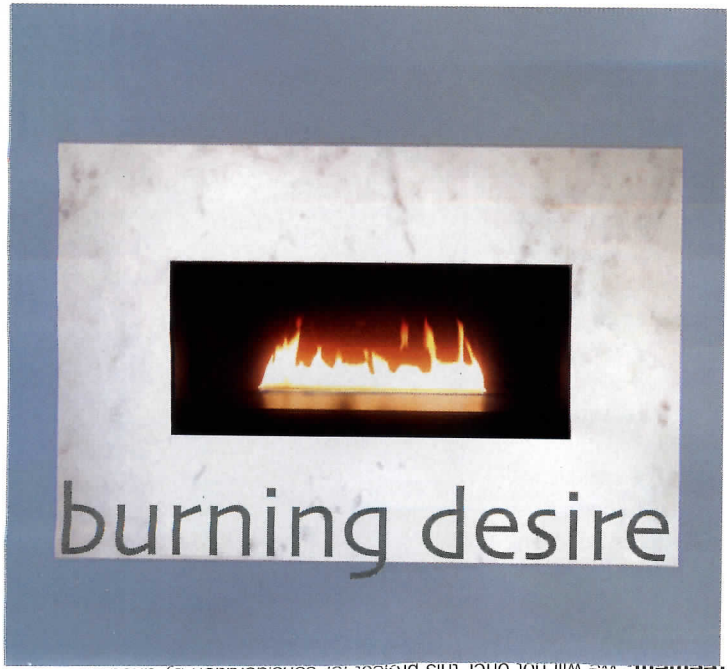
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If previously (or scheduled to be) published, please include a copy of the article, name of magazine or newspaper, and publication date:

XIX INTERNATIONAL CONSTRUCTION AND BUILDING EXHIBITION



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The editors of ARCHITECTURAL RECORD announce the 2008 RECORD HOUSES awards program. Entry is open to any architect registered in the U.S. or abroad. Of particular interest are projects that incorporate innovation in program, building technology, form, and materials. Projects must be built, single-family dwellings. The fee is U.S. \$65 per submission; please make checks or money orders payable to ARCHITECTURAL RECORD (we cannot accept credit cards or wire transfers). Submissions must include plans(s), photographs (prints or color laser), no slides or CDs), a brief project description, and entry form—all firmly bound in a 9-by-12-inch folder. Ring, spiral, perfect, or book binding, as well as portfolios with attached sleeves are acceptable options. Entries submitted as loose pages will be disqualified. Your submission must be postmarked no later than October 31, 2007. Anonymity is not necessary. Selected entries will be featured in 2008 RECORD HOUSES. Other submissions will be returned or scheduled for a future issue. Please be sure to include a pre-addressed envelope with an air bill for the return of your materials. Allow 10 weeks for notification.

CALL FOR ENTRIES 2008 Record Houses



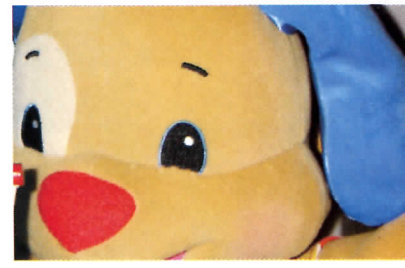
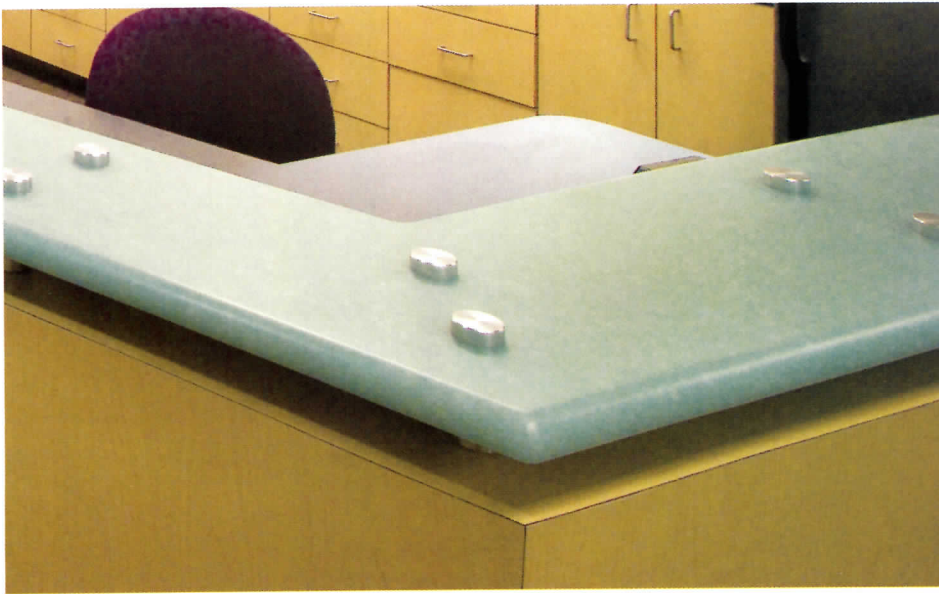
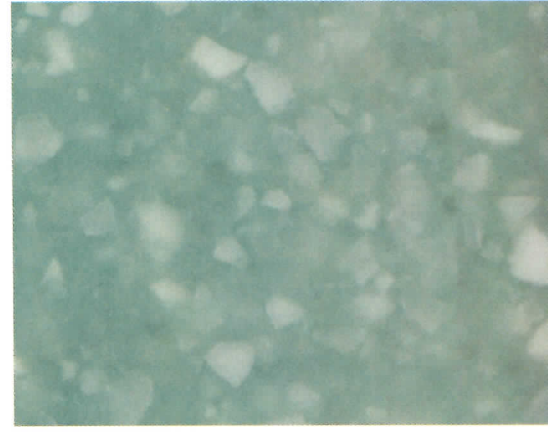
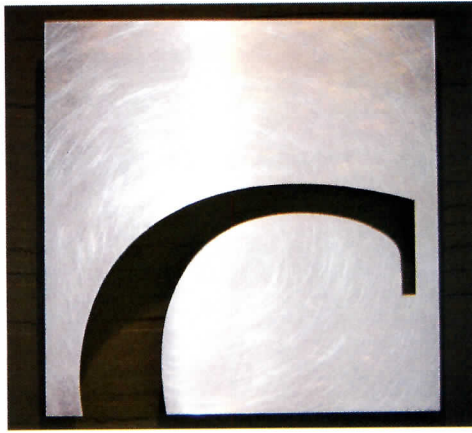
Clockwise from top left:
Pen design by Toyo Ito, ink, 2002;
pen design by Alessandro Mendini,
ink and colored pencils, 2002;
pen design by Álvaro Siza Vieira,
ink, 2002.

Drawing together architects and writers

For more than 30 years, Cleto Munari has collaborated with architects and designers from around the world to create precious, well-designed objects for his Vicenza, Italy-based design company. For his most recent project, Munari invited four architects, Toyo Ito (Japan), Alessandro Mendini (Italy), Álvaro Siza Vieira (Portugal), and Oscar Tusquets (Spain), to each design a pen dedicated to an individual Nobel Laureate in Literature. To promote the collaboration, each limited-edition pen (starting from \$600 for the fountain pen, \$550 for the roller ball) is accompanied by *The Book of the 5 Pens*, a hard-cover, perfect-bound book, complete with prints of the original pen designs and replicas of notes the Laureates wrote to Munari explaining their personal relationship with pens. Beyond functioning as a clever marketing piece, Munari's book illustrates the bond that writers and designers share by creating art with strokes of ink on paper.

While the pen designs were conceived by the architects in 2002, they are only now available in the U.S. According to Mendini, his pen design dedicated to American writer Toni Morrison was inspired by the shape of a tapered column, with a fluted shaft and a base. In his sketch, "Many pens positioned upright next to each other form a temple," he explains. Mendini remains strongly connected to hand drawing, favoring the Tratto Clip pen and colored pencils. "Almost every project I design, at whatever scale—be it architecture or design—starts out with a sketch." Rita Catinella Orrell

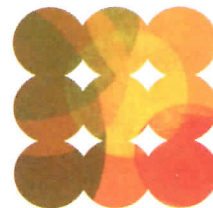
MY DIARY



A project like South Tulsa Pediatric Clinic has a life for me, a beginning and end, and it is part of me. I spend almost all of my time focused on Healthcare, and Pediatric projects have a special place for me. Children are often sick and afraid, and our design can help put them at ease during a difficult time. Our client loves the Avonite Antique Glass, and the translucence of the product pulls the design through. We wanted kids to walk through and be in awe, and our client is very impressed. No one else has a product like this.

I am Jennifer Hodges from Curtis Group Architects, and I help children smile when they're afraid. South Tulsa Pediatric is now part of my life.

JENNIFER HODGES
Curtis Group Architects, LTD * Dallas, Texas.



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