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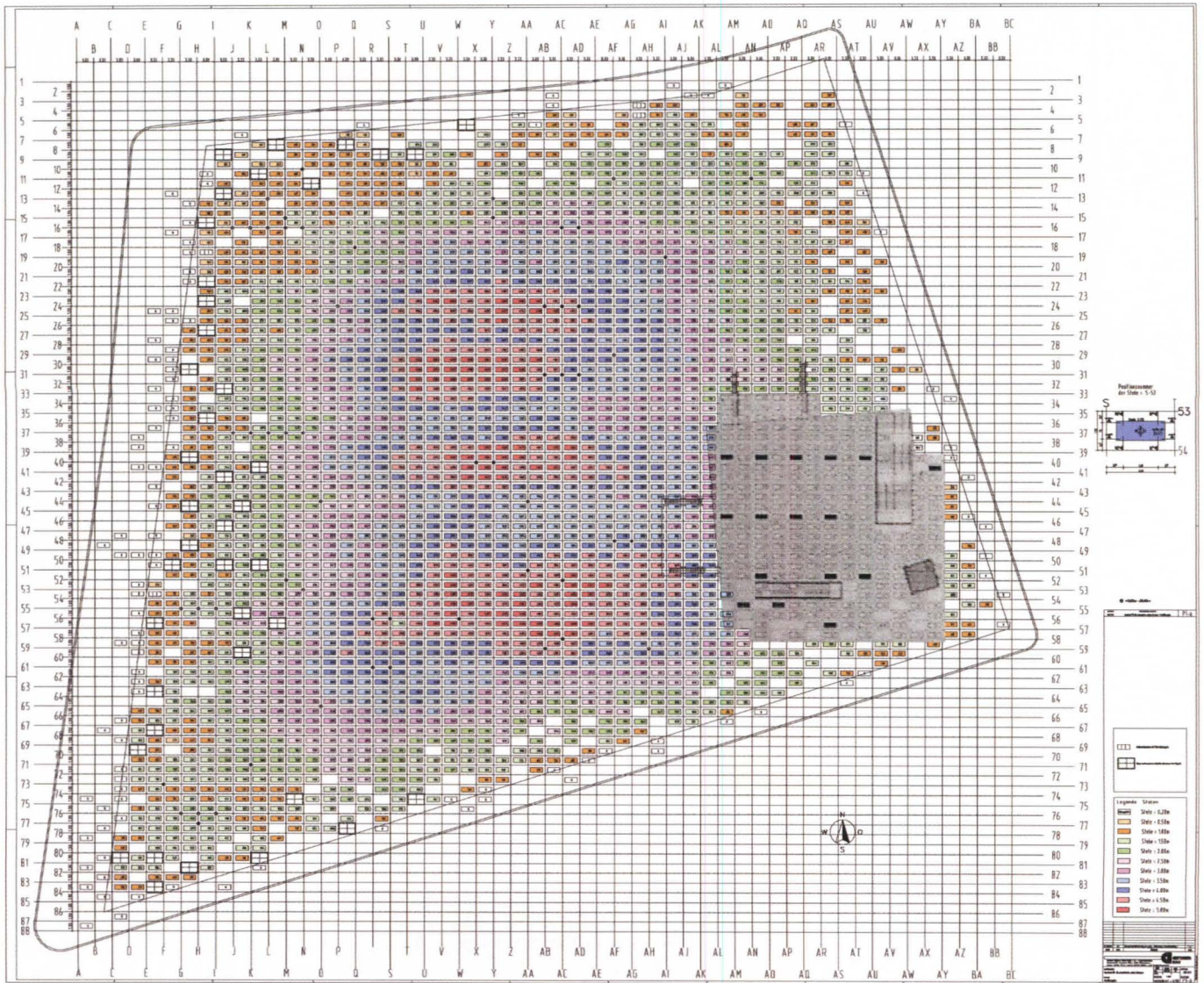
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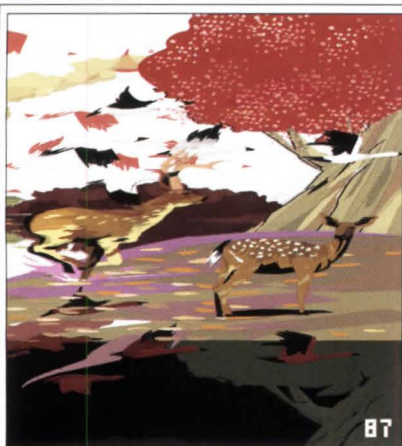
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Ideas
Glass • Coatings



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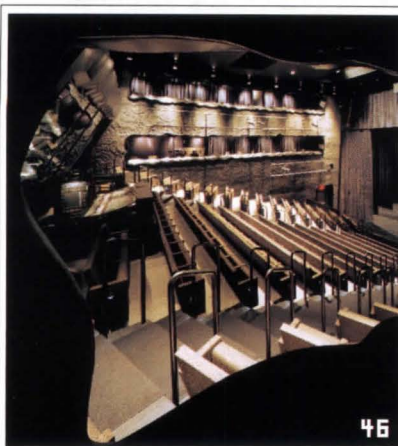
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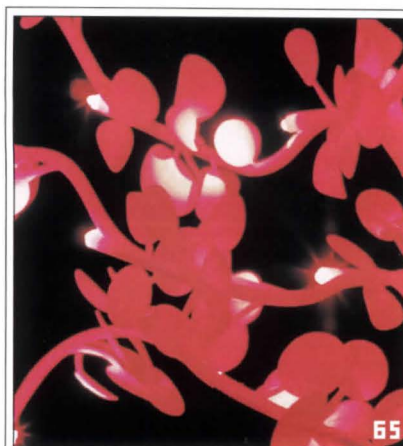
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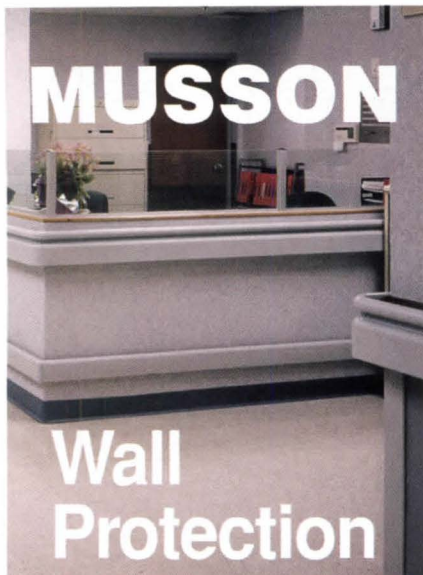
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A field of concrete stelaes ripples across five acres in Berlin—Peter Eisenman's memorial to Jews killed in the Holocaust—dissolving from a grid into a space of controlled chaos (cover). Images this page (left to right): An illustration protests rural destruction by big-city forces; the Walker Art Center's new auditorium; and a light fixture produced using rapid manufacturing technology.

→ COMING NEXT MONTH

LEED for existing buildings | AIA contract documents | A waterfront park by Endres Ware | Zaha Hadid's factory for BMW | Minimalism and retail fixturing

PHOTOGRAPH ON COVER: JAN BITTER; ABOVE LEFT: ILLUSTRATION BY JEREMY TRAUM; ABOVE MIDDLE: ALBERT VEČERKA/ESTO; ABOVE RIGHT: JOHN BRITAIN.



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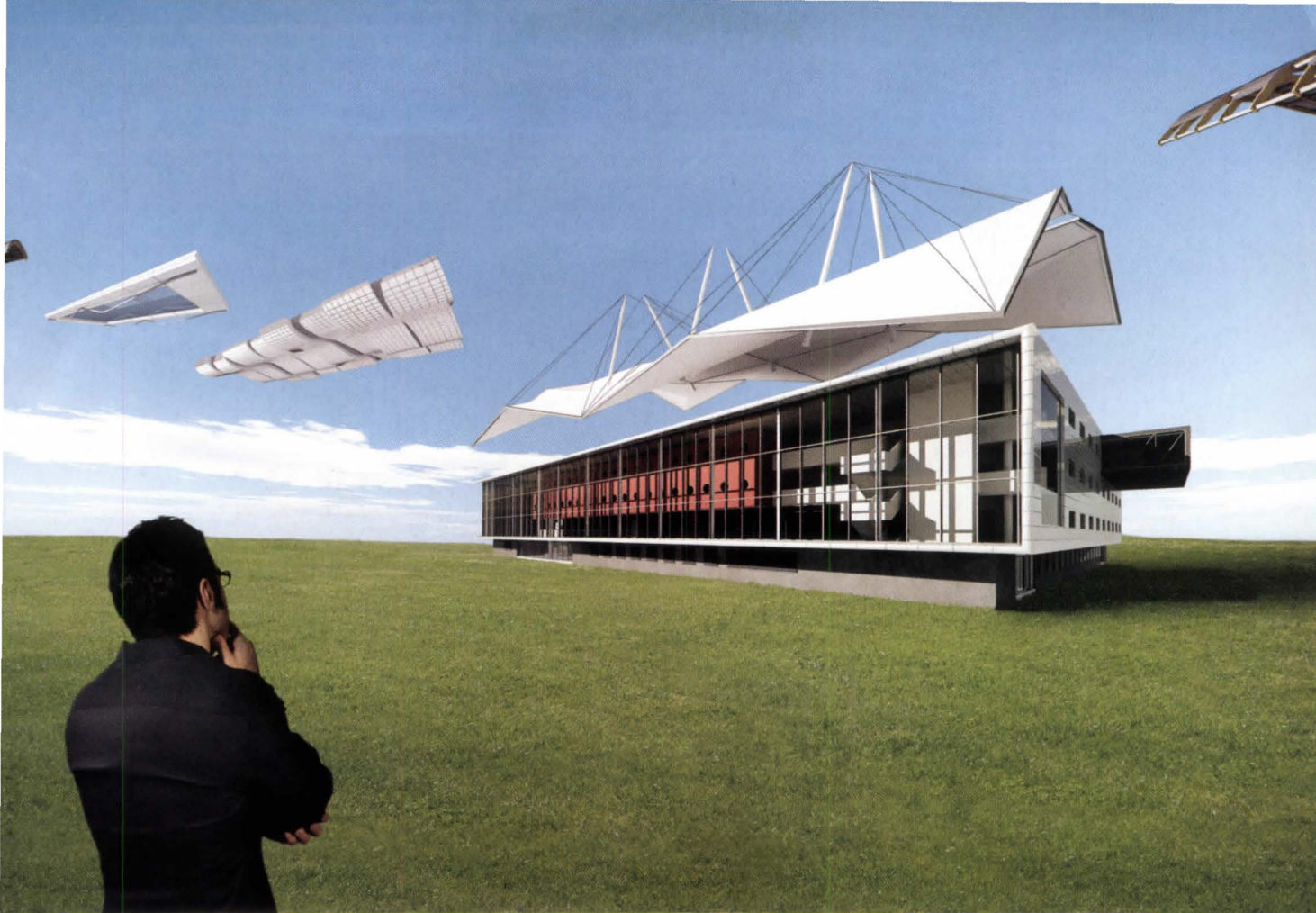
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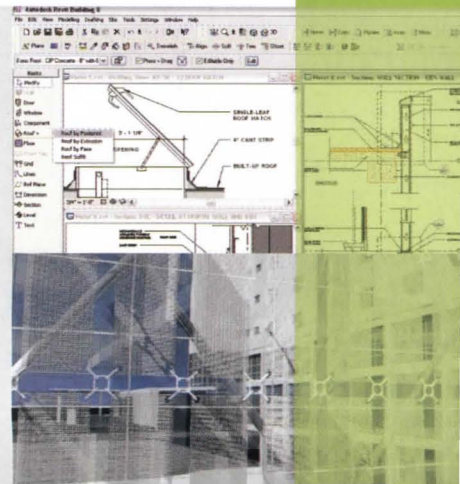
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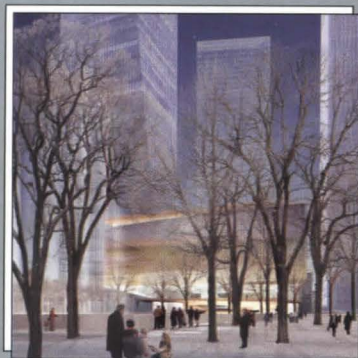
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ENOUGH ALREADY

BY ABBY BUSSEL

Last month's unveiling of Snøhetta's design for a cultural center at Ground Zero produced a breath of fresh air long missing from an otherwise ugly morality play of a rebuilding process now running at the World Trade Center (WTC) site in New York City. There's a governor driven by visions of history-book glory; a mayor preoccupied with building a midtown football stadium; a private developer blinded by fantasy riches in the sky; a master plan hamstrung by its conceiver's patronizing patriotism; and a port agency and a development corporation both kowtowing to said developer.

Architects Craig Dykers and Kjetil Thorsen of Oslo-based Snøhetta have transcended this mess to deliver a remarkably modest and gentle landmark that, at only five double-height stories, stands head and shoulders above the 1,776-foot, 2.5 million-square-foot Freedom Tower, a David Childs-Daniel Libeskind production sent back to the drawing boards in early May to improve the building's ability to withstand terrorist attacks—in part due to the recent decision not to submerge a portion of the nearby West Side Highway in a tunnel and thus keep potential truck bombers contained (see page 19).

Housing the International Freedom Center, the Drawing Center, and a visitors' information center, the Dykers-Thorsen scheme lifts the majority of the building's 250,000 square feet above the ground, forming a gateway to the adjacent memorial by Michael Arad and Peter Walker. A rooftop terrace and glazed openings in the glass-and-wood façade also afford views of the memorial plaza. A light well brings natural illumination through Snøhetta's building, down to a broad, wooden entrance ramp and possibly even into Santiago Calatrava's subterranean transportation hub that will sit below the cultural center.

Snøhetta understands feet-on-the-ground, eye-level urbanism. The firm's low-rider scheme, along with the transit hub and memorial, demonstrates the potential for a robust horizontal precinct in Lower Manhattan. While it is likely that the design will be run through the

proverbial wringer—there are, for example, transit infrastructure issues to be resolved—before opening its doors in 2009, Dykers and Thorsen are outsiders, a position that may give them greater traction to fend off the many parties who wield power over the WTC site.

Rebuilding need not be a game of "our hubris is bigger than your hubris" in order to tell the terrorists of the world that the United States will not cower. Rebuilding is not simply an opportunity to take a defiant stance, but a time to carefully consider our priorities and aspirations. Tall does not equal strong. Clichéd symbols do not equal boldness. (Peter Eisenman's Holocaust memorial in Berlin, page 37, is a compelling example of sentiment-free design.)

It's time to reassess Libeskind's master plan. Let's put the commercial high-rises, including the ill-conceived Freedom Tower and its feeble Statue of Liberty-inspired spire, on indefinite hold—at least until there's a market for them. In the current climate, will any corporation want to put its employees in WTC towers? Insurance alone will likely make such spaces unleaseable. As many others have already suggested, the Port Authority needs to find a way to remove Larry Silverstein, the WTC leaseholder, from the scene. A private citizen should not be a major decision-maker on a parcel of such public consequence.

A revised master plan that includes the memorial, expansive public spaces, the cultural center, and the transportation hub simply makes more sense. In place of office towers, build space for think tanks of every stripe. Let our greatest minds in economics, medicine, technology, and public policy come together to contemplate the future from Ground Zero. Build midrise, mixed-income housing. Construct an international school—surely the great universities of the world will fund such a project. Freedom is not simply a matter of signs and symbols. It is a mechanism to support the exploration of new ideas and expressions.

It's time to start over. ■■■

Get your best work published. Great house? The deadline for *Architecture's* 4th annual Home of the Year Awards is July 15. Great idea on the boards? The 53rd annual P/A Awards are due by August 26.

Healthier hay

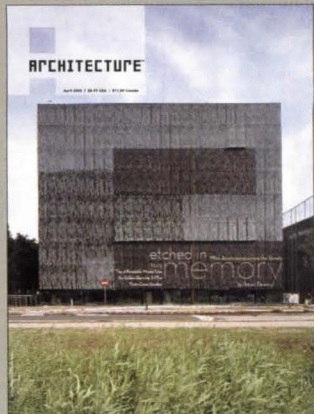
Having just read "Mr. Ed's Shed" [April 2005, page 62], we take great exception to the general accolades expressed over the hay storage/façade design element. In the design of barns and equestrian centers, first priority must be given to the safety of the occupants—horses. For them, this safety includes the proper storage of hay in order to avoid exposure to

rain, which causes mold to grow. If moldy hay is ingested, it leads to maladies often fatal to the animal.

Gary I. Udall
Lafayette, Colorado

Beware the BIM

The BIM software manufacturers [April 2005, page 77] are borrowing from the pharmaceutical industry's playbook:



04 | 2005 ↑

bypass the professional and sell directly to the consumer/client. Let's hope there is room left at the table for architects as deliverables and process get redefined.

Forest T. Hooker
Seattle

A beauty to behold

I was pleased to read Frank Clementi's Protest on beauty [March 2005, page 72] in tandem with such a colorful issue highlighting Ralph Rapson's work [page 40]—particularly his fantastic perspectives. Each drawing was a narrative highlighting the human character, full of life and desire, enlivening Rapson's imaginary spaces and case studies. Adventurous men in helicopters, hardworking housewives, dancing couples: All are examples of Rapson's imagination, pointing out what gives greatest value to architecture—a love for what is human.

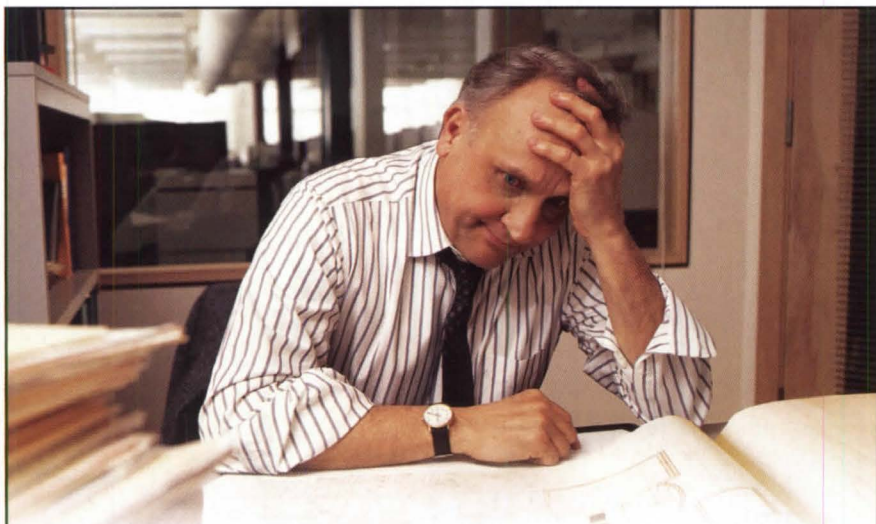
Martin Bacich
San Diego

CORRECTION

The Bernal Gateway in "Changing the Formula" [April 2005, page 29], cited as a project of Pyatok Architects, was the result of a joint venture of that firm and Young & de la Sota Architects.

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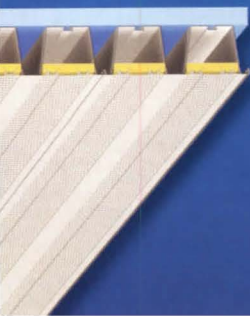
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Architects: The Port Authority of New York and New Jersey

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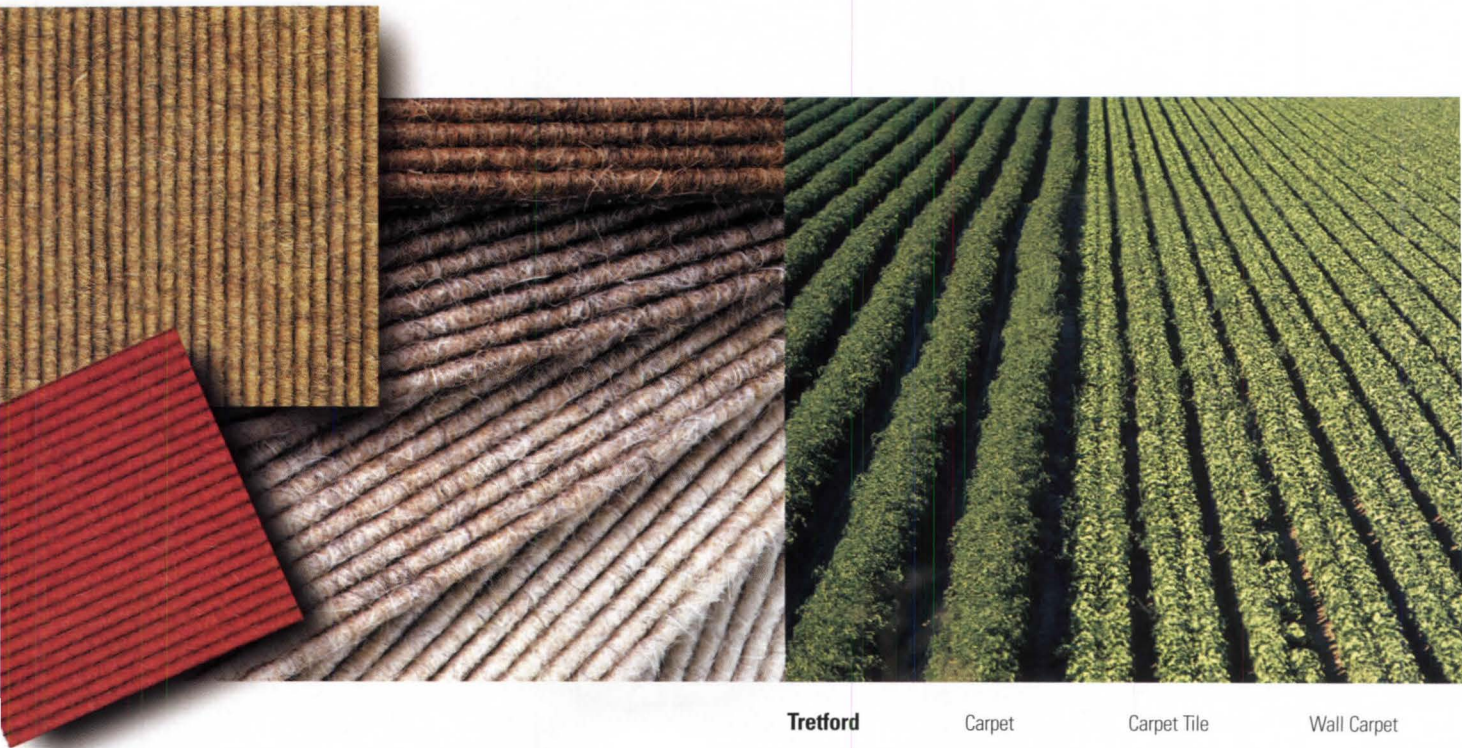


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FREEDOM TOWER'S LATEST TWIST

Even though Freedom Tower—the 1,776-foot-tall emotional replacement for the World Trade Center towers—is back on the boards due to security concerns voiced by local police, design architect and site master-planner Daniel Libeskind remains sanguine. In an impromptu statement made while receiving a design award from *House Beautiful* magazine last month, Libeskind optimistically noted that “the people have spoken,” in a clear reference to the latest chapter for an already controversial building. (Libeskind did take the opportunity to plug his original master plan, however, emphasizing that his scheme devotes about a third of the site’s 16 acres to a memorial.)



According to local officials, new concerns about street-level blasts require the tower’s design team, led by David Childs of Skidmore, Owings & Merrill, to increase the structure’s setback from the street and to fortify the exterior of its first 15 or so floors. The building’s torqued form, however, which Libeskind created in reference to the nearby Statue of Liberty, is expected to remain largely intact.

Freedom Tower has already suffered scrutiny for having only 70 office floors (much of the upper tower is unoccupiable open lattice) and, before that, for accusations of cronyism in the selection of its architectural team. While its cornerstone was laid 11 months ago, what could be the world’s tallest building is now slated for 2010 completion. **C.C. Sullivan**

A.I.A. SELECTS SUSTAINABLE CITIES

In April, the AIA Center for Communities by Design selected five metropolitan areas to be test cases in its new Sustainable Design Assessment Team program. These locales—Oklahoma City; Cache County, Utah; Forest City, North Carolina; and Pittsfield and Northampton, Massachusetts—will each receive \$20,000 from the AIA for a community assessment of sustainability, to be performed by a collaborative team of architects, planners, economic development specialists, and related professionals. The team will advise the communities on issues including air and water quality, economic diversification, and development pressures in rural areas. Each city will host a preliminary visit; a three-day on-site survey followed by a detailed report; a conference call six months later to review progress; and a follow-up visit one year down the line. **Anna Holtzman**

NATIONAL PARK SERVICE SHAKE-UP

A major staff restructuring at the National Park Service (NPS) in May resulted in a new Keeper of the National Register of Historic Places. Janet Matthews, the associate director of cultural resources for the agency, removed 10-year-veteran Carol D. Shull from the keeper position and appointed herself to the post. Shull will run a new office for Heritage Education Services that aims to enhance the public’s understanding of preservation issues. Matthews, a former Florida preservation officer, wrote to her staff that the changes were to promote “more efficiency” in the NPS cultural offices.

A park service spokesman, David Barna, said the move was designed to put more clout behind the post by raising the rank of keeper “to a career senior executive.”

Shull’s removal has rankled some in the preservation community. Ian Brown, an anthropology professor at the University of Alabama, resigned from the NPS National Historic Landmarks Committee in protest and wrote that Shull “does not deserve the treatment that she has received.” **Bradford McKee**

⇒ Painter and architectural theorist Robert Slutzky, 75, died May 3. A former professor of art and architecture at Cooper Union in New York City, Slutzky was most recently a professor of fine arts at the University of Pennsylvania.

⇒ Ralph Erskine, 91, died March 16 in his hometown of Drottingholm, Sweden. An architect and urban planner, Erskine’s last major project was the Greenwich Millennium Village in London, which is undergoing its last phase of construction.

⇒ Antoine Predock won the competition for the Canadian Museum for Human Rights in Winnipeg. In New Haven, Connecticut, Gwathmey Siegel & Associates was named for an expansion of Paul Rudolph’s Art & Architecture building at Yale University.

⇒ A single gypsum standard consolidates eight former standards for gypsum board uses in residential and commercial construction. ASTM c1396 changes none of the technical requirements but is intended to simplify specification.

⇒ St. Louis, Missouri-based HOK will honor its 50th anniversary by funding the construction and operation of a healthcare center in rural Kenya. Through a \$500,000 donation to Chicago-based Africa Infectious Disease Village Clinics, the firm plans to have the facility ready by October. In other HOK news, Bill Hellmuth was made the firm’s new president in April; Bill Valentine, Hellmuth’s predecessor, was named chairman.

⇒ The GSA and the National Park Service chose Brooklyn-based architect Rodney Léon to design the African Burial Ground memorial in New York City, to be completed by 2006.



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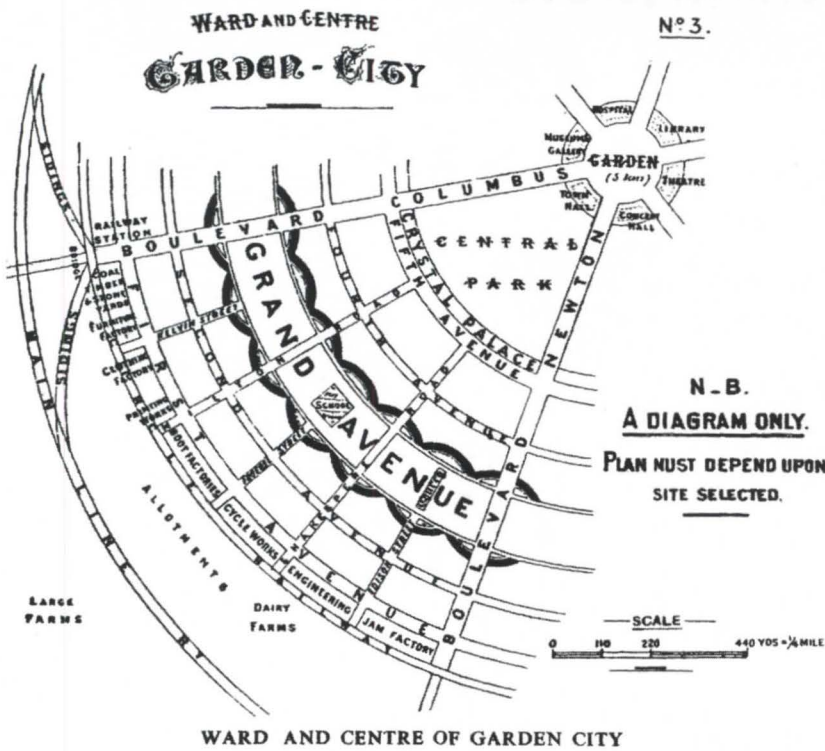
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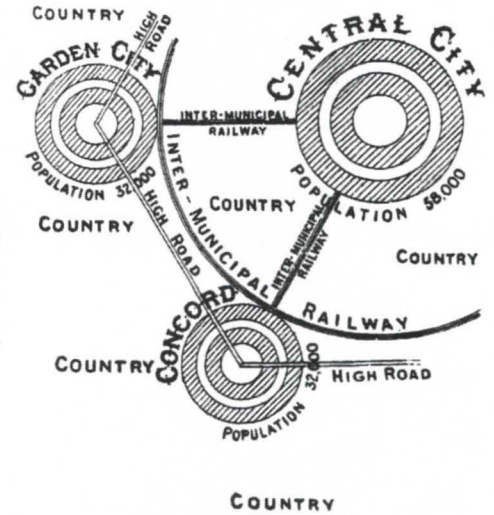
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COUNTRY

THE NEW SUBURBANISM

From older communities to brand-new towns, it takes a village to make suburbia work. by Joel Kotkin

For much of its recent history, the city of Fullerton, California, situated some 22 miles south of Los Angeles, remained—at least to the outside eye—just another part of Southern California's ever-expanding suburban sprawl. By the 1970s, the city's once-vibrant downtown had gone the way of so many others, deserted by shoppers who were drawn to the ubiquitous surrounding malls.

Over the past two decades, however, and most particularly since the 1990s, downtown Fullerton has enjoyed a remarkable rebirth, with a significant amount of new housing and a flourishing array of shops and restaurants. Older buildings are being retrofitted, including the city's 1925 Fox Theater.

Fullerton's resurgence as a social and cultural center for both its 126,000 residents and people from nearby communities is representative of a new dynamic that is sweeping America's outer periphery: the suburban village. Defined as a reconstituted—or brand-new—center for a suburb, the suburban village tries to reconcile Americans' desires for space and security with a fundamental quest for community. It seeks to humanize the suburban experience and create options for residents. Its promoters don't hold out hope that suburbanites will sell their cars and become strap-hanging urbanites, but that they will instead accept and even celebrate the ideals of family, property ownership, and independence.

A NEW SUBURBANISM?

The rise of suburban villages represents a new epoch in the development of the metropolitan periphery. Rejecting the urbanist notion that clings to the primacy of the city center,

At the turn of the last century British planner Ebenezer Howard envisaged "garden cities," prototypical towns that are not dissimilar from today's suburban villages.

the successful suburban village can coexist happily with neighboring single-family residences. It allows suburbs to be more than mere appendages of the downtown core; they become something approximating a self-contained town. This phenomenon is part of what Randall Jackson, president of The Planning Center, a consulting firm based in Costa Mesa, California, calls "new suburbanism."

In contrast to New Urbanism, new suburbanism tries to work within sprawl rather than fight it. Promoters seek not a return to the dense urban paradigm of Jane Jacobs but instead the creation of an archipelago of villages connected not only by roads (and sometimes trains) but also by new communications technology. While it may sometimes follow the design principles created by New Urbanists, the suburban village embraces the reality of dispersion and encourages less dependence on long-range commuting, including to the urban core. It looks less to the urban past of the industrial era and more to the postindustrial future of a new village-dominated epoch.

Although fairly recent in its current incarnation, new suburbanism can trace its origins to the notions of the early-twentieth-century British planner Ebenezer Howard, who advocated the creation of "garden cities" on the suburban periphery (above). These self-sufficient towns, with populations of roughly 30,000, would have their own employment bases, neighborhoods of pleasant cottages, and surrounding



Outside Washington, D.C., Clarendon (left, top and bottom) has a newly developed village amid medium-density housing, while the Chicago suburb of Naperville (above) drew from a rich stock of single-family homes to reinvent its town center.

buffers of rural areas. Few developments based on Howard's model were built, but many idealistic designers shared a similar desire to create what James Rouse, the late developer of the 1960s planned town of Columbia, Maryland, described as "a sense of place at each level of community in which a person can feel a sense of belonging."

EXPANDING OUTWARD

Until recently, such efforts have been overshadowed by a more pervasive form of suburban development. Places like Levittown, New York, represented the postwar paradigm, housing the burgeoning middle class in what to a large extent served as bedrooms for the still-dominant urban cores. New suburbanism offers to correct the excesses of sprawl without trying to reengineer the fundamentally dispersed nature of the American metropolis. Indeed, despite the well-developed cant about a "return to the city" that is trumpeted every decade or so, the vast majority of U.S. metropolitan growth—well over 90 percent since 1950—has been in suburban and exurban areas, most notably in the west and south. The numbers even in the last decade are staggering: Between 1990 and 2000, the growth of America's suburbs in the 50 largest metropolitan areas was more than 17 million people; in contrast, the total growth of the urban core was 3 million.

These trends gain particular relevance in light of an expected U.S. population surge in the first half of the twenty-first century—up from roughly 300 million to 400 million—that will take place overwhelmingly on the suburban periphery. Two major forces underpin this demographic shift: immigration

and retirement patterns. During the 1990s, immigrants accounted for roughly one-third of the nation's total population growth of 32 million, the largest such increase in American history. Some urbanists see these new residents as potential saviors of the inner city. But increasingly, immigrants, like other Americans, head for the suburbs as soon as they can afford to make the move. In fact, they may prove to be the primary customers for the new suburban villages. Many, however, face challenges in finding affordable housing anywhere near their jobs on the suburban periphery. As a result, they may well be attracted to revived suburban cores and new villages, which tend to have mixed-income housing. In redeveloped areas like those in Fullerton, immigrants have already emerged as primary consumers of townhouses.

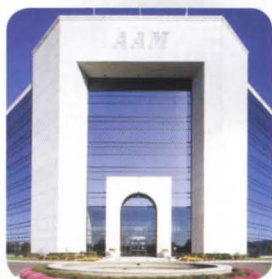
The other demographic group is the aging "empty nest" set. There are some clear indications about the destinations of these "downshifting boomers," as Brookings Institution demographer William H. Frey calls them. Most retirees in the first bloc of boomers appear to be sticking pretty close to the suburbs, where roughly three out of four now reside, according to Sandi Rosenbloom, a professor of urban planning and gerontology at the University of Arizona. "Everybody in this business wants to talk about the person who moves downtown, but it's basically a 'man-bites-dog story,'" Rosenbloom observes. "Most people retire in place. When they move, they don't move downtown; they move to the fringes of suburbia."

PAN-U.S. PHENOMENON

Suburban villages are either being built or proposed throughout the country. Massive new developments, replete with housing, shopping, and transit connections, have already been created throughout large parts of suburban Southern California, around Chicago, in the Washington, D.C., environs, and outside Salt Lake City. These developments are also occurring in existing communities that not long ago were simply parts of aging inner-ring suburbs, such **CONTINUED ON PAGE 76**

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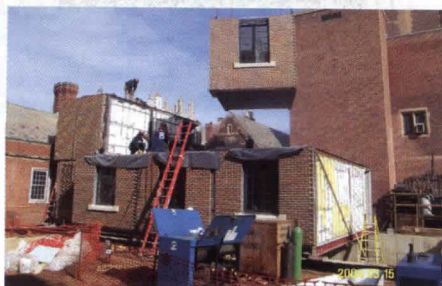
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Going modular allowed the firm of KieranTimberlake to install 33 dorm rooms at Yale University in less than a week (above and left). Developer First Penthouse designs prefabricated apartments that it installs on rooftops of existing London buildings (right and below).



THE MODULAR SQUAD

Multifamily developments and computer technology have brought prefabrication back into vogue. The question is, will it last this time? by James Murdock

Prefabricated construction—a catchall term that includes everything from preassembled wall sections to self-contained dwelling modules—seems to experience a revival every few decades. R. Buckminster Fuller and Edward Larrabee Barnes experimented with modular single-family residences in the 1940s. A generation later, in the 1960s, Archigram, Moshe Safdie, Paul Rudolph, and many others explored the idea of “plug-in cities”—preassembled dwelling units grouped on an urban scale. During the housing boom of the 1980s, the country’s second-largest residential builder was Cardinal Industries, a developer of modular apartment blocks.

Storyed as prefab is, it has its perennial critics. They complain that its often-repetitive volumes and sparse finishes betray the cheapskate agenda of many developers. But prefab’s defenders believe that, this time, it’s here to stay. And they point to a host of intriguing projects that may finally lay to rest many lingering criticisms.

Their new argument rests, principally, on the idea that computer technology now enables off-site fabricators to produce higher-quality housing than on-site construction teams can. Also, by marrying CAD directly with production machinery, digital directives coming straight from an architect’s computer screen are removing the middleman on the way to the factory (see “Quick and Bright,” page 65). So prefab, its boosters contend, is poised to irrevocably alter the traditional tripartite bal-

ance of architect, contractor, and client—giving architects, at long last, the upper hand. Skeptics dispute this, of course, maintaining that prefab construction will only become widespread when clients find it financially beneficial. They say that prefab’s best hope lies in finding a lasting niche.

As architects’ infatuation with prefab runs hot and cold, fortunes in the modular-construction industry have also waxed and waned. Prefabrication allowed Walt Disney World’s Contemporary Resort in Orlando to open in record time in 1971—units were assembled and furnished in a factory, then trucked to the site and slid into the A-frame structure like dresser drawers. But plans to swap out the rooms for regularly scheduled renovations had to be shelved when the building’s settling unexpectedly locked the rooms into place. By the late 1980s, Cardinal Industries began a slide that would end in bankruptcy. Its new owner dabbled in modular construction but got cold feet over a lack of design flexibility and ultimately decided against pursuing it.

THIS TIME, THEY MEAN IT

What makes prefab’s current resurgence different—and perhaps more viable—is that architects and the manufacturers of modular systems are finally speaking the same language, through CAD/CAM programs that can “talk” to factory-floor robotics. This technology could prove to be prefab’s gestalt,



Far from restricting creativity, prefabrication can sometimes foster it. Valerio Dewalt Train Associates' design for a Miglin Properties hotel in Chicago (left) contains cantilevered volumes that would be difficult to build on site. Meanwhile, condominium buyers at Chad Oppenheim's Cube in Miami (right) have a choice of joining their living modules vertically or laterally.

according to James Timberlake, a partner in Philadelphia-based KieranTimberlake Associates. He believes that CAD/CAM enables project teams to produce buildings that combine the best skills of architects and manufacturers. This is possible because the CAM side of the equation, in particular, enables "mass customization"—a variety of essentially duplicative designs but with certain components altered to fit specific usage requirements. Computers used in factory settings, meanwhile, are enabling parts manufacturers to adjust their machinery to produce different components without retooling an entire line, saving time and creating production efficiencies. "In 10 years, perhaps even five," Timberlake ventures, "a majority of projects in certain building types are going to get built this way."

For his part, Timberlake is experimenting with prefabricated components and wholesale modular systems in such projects as a residential quad at Yale University, where he designed "Upper Court," a new 24-bed dormitory composed of 33 modular units. Assembled off-site by Lebanon, New Jersey's Kullman Industries, a pioneering diner manufacturer, these modules measured roughly 11 feet by 30 feet and arrived on site completely finished, down to their brick cladding.

As it did in its early years, prefabrication can mean savings in labor and construction costs, but it no longer means the end results are cheap and chintzy. In his Cube project, a luxury condominium tower in Miami, architect Chad Oppenheim is giving thought to having his lavish, spallike bathrooms prefabricated by an Italian manufacturer. "We've always had trouble getting precision work from contractors," he says. "By having everything built in a controlled factory environment with computer measurements, we're hoping that will allow us

to increase craftsmanship."

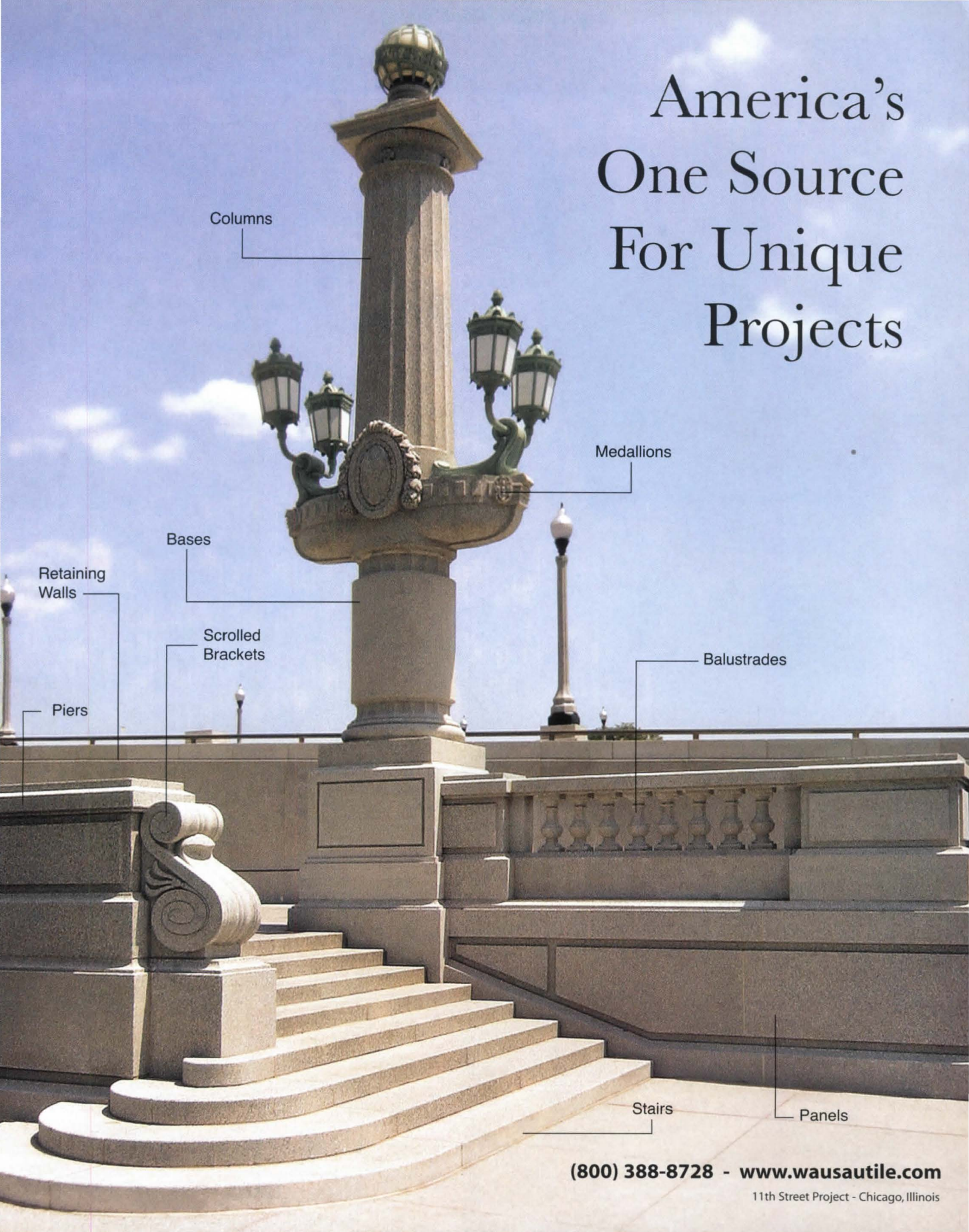
And despite the complaints that prefab is limiting, some architects have found that it can also be liberating. Joe Valerio, a principal of Chicago's Valerio Dewalt Train Associates (VDTA), points out that prefab allows architects to specify cantilevered volumes or longer spans on sites where topography and other constraints would normally prohibit them. Such heroic gestures don't require on-site scaffolding and formwork.

FAST FORWARD

Prefab's main advantage over conventional construction remains speed—Yale's Upper Court, for instance, came together in less than a week—and that holds for both large- and small-scale projects. In 2001, the owner of a 3,000-square-foot apartment in a converted Manhattan factory building hired VDTA to design the interior. When the client gave the firm only a month to do so, Valerio turned to prefabrication. The finished apartment is essentially a 3-D jigsaw puzzle of lustrous sheet-metal panels, each cut as detailed in shop drawings produced with MicroStation modeling software, and then shipped to the site.

The other advantage prefabrication has over conventional construction is that it is less disruptive, which makes it ideally suited for projects that are constrained by existing structures or sensitive neighbors or sites. In London, developer First Penthouse designs, prefabricates, and sells modular apartments that it hoists into place on top of existing buildings. Prefab, in this sense, is the ultimate form of infill development, and this could well be its lasting market segment, believes Hakan Olsson, First Penthouse's managing director.

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IS PREFAB PREMATURE?

Even skeptics concede that modular construction is ideally suited for infill development, but they argue that even prefab and CAD/CAM combined will not be enough to alter the balance of power among contractors, architects, and their clients. One critic is Stephen A. Moore, who directs the sustainable-design program at the University of Texas in Austin. In the late 1960s, he was part of a team that designed apartments suitable for a modular-housing program run by the Department of Housing and Urban Development (HUD). HUD cancelled the program prematurely, though, and this experience showed Moore that the only way innovations catch on is when they are both politically and financially expedient.

"All technological change is also political change," Moore contends. "We've seen any number of technologies come and go just like we've seen prefabrication come and go. It's not that there's an inevitable intelligence that lies inside some machines and not in others. That's not why technologies become adopted. They become adopted because the majority of people see it in their [financial] interest, and that's a political change."

CAD/CAM-driven prefab would seem to face an uphill battle against the same entrenched interests it faced 30 years ago, namely the construction trades, but there are signs of movement. Kullman hires unionized trades in its factory, for example, and Pulte Homes, the nation's second-largest homebuilder, now sells modular single-family houses in suburban Washington, D.C.

HERE'S SOMETHING SPECIAL

Yet despite these developments, prefab building remains a specialized method, and it has not come close to delivering on all of its theoretical promises. Because each project is often like a prototype, for example, many developers have yet to reap the financial benefits of mass production, so quantifying prefab's economic benefits remains difficult. Some architects, including Sebastian Mariscal, a principal of MS-31 in San Diego, enthuse that off-site fabrication can save between 5 percent and 10 percent in materials and labor costs: There's less wasted material, and construction accidents are also reduced. Other architects, though, argue that prefab currently costs more than conventional product simply because they and contractors are learning as they go.

For many clients, saving even 10 percent is not a compelling enough reason to suffer the headaches of working with what still seem to be experimental construction techniques. Yet what excites everyone is prefab's time savings. And time, as clients love to remind their architects, is money.

James Murdock writes about architecture, real estate, and business. He is a contributing editor of *Multi-Housing News*, and can be heard on American Public Media's "Marketplace."

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ALCAN COMPOSITES

While architecture firms pursue new work through a variety of avenues—from professional marketing teams and glossy promotional materials to a junior architect tapped to answer RFPs—the best job leads are often obtained via word of mouth. And some of the most useful leads come from the allied professions: consultants and contractors. This wisdom is common knowledge among marketing professionals in the A/E/C industry, yet architects—who tend to shy away from words like “networking”—don’t always realize the potential in their contact with jobsite associates.

“It’s such a relationship industry,” says Kacey Clagett, development director at SmithGroup in San Francisco. “Sometimes people forget that and they think that it’s only about design.” Marketing consultant Kenneth Caldwell, who works with architects in the Bay Area, explains that consultants—such as land surveyors and engineers and **niche advisors** like theater and sports specialists—are often the first ones to be brought onto a job before an RFP has been formally released. In addition, he points out, “Consultants’ profit margins are typically higher than architects’, so larger engineering firms, for example, are not afraid to spend more money on good marketing people.” In effect, networking with consultants can serve as a form of **parasitic marketing**.

☐ **Some of the best job leads come from the allied professions: consultants and contractors.**

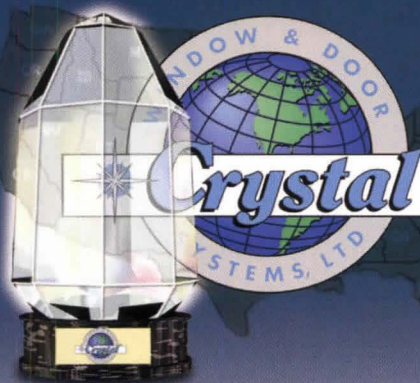
RECIPROCAL RELATIONSHIPS

So how do you get consultants to share leads with you? Scott Kelsey, principal at Anshen+Allen Los Angeles, relates, “We have a group of consultants with whom we have positive working relationships, and we share information both ways.” Even when job complications arise, adds James McCown, marketing director at Boston firm Schwartz/Silver Architects, maintaining friendly relations is key, “Because if that relationship sours, there’s nothing the marketing director can do to network with them in the future.” Yet simply getting along on the jobsite is not enough. “Some people wait until current work dries up,” Clagett says. “You should always be hunting down the next leads.” Also, she relates, “It’s always good to check in with your **past relationships**, because you never know, someone who was doing health-care before could be doing biotech now.”

Depending on what type of work a firm does and where it’s located, opinions on where the best leads come from vary. According to Clagett, **contractors** are often brought onto a job first because of their involvement in the project’s budget. Caldwell offers a different point of view: “In San Francisco, because it’s a seismically active zone, **structural engineers** often get called up first,” he says. For projects such as theaters, sporting facilities, and concert halls, he adds, it’s often the specialists who get in on the project earliest. Meanwhile,

Schwartz/Silver principal Warren Schwartz maintains that “**M/E/P engineers** seem to have more leads. Universities have an ongoing need for them, so they may be tapped in on an ongoing basis.”


One of the most effective ways of leveraging one’s contacts with consultants is getting introductions to potential clients before a new job opens up. Jill Capanna, marketing director at Anshen+Allen LA, relates an example involving Texas A&M University, which currently has an RFP out for a research building. A lab planner alerted her firm to the project over a year ago, giving her the opportunity to follow up with the client before the RFP was released. “When you meet with a future client before they have a project on the table,” says Anshen’s Kelsey, “they’re apt to be less formal, more open, and more clear about what they want.” In the end, no matter how strong your RFP submission is, maintains Kelsey, nothing beats the old-fashioned power of connecting a name to a face. ■



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Big and brash doesn't begin to describe it: At \$25 billion and swallowing 1,500 acres of reclaimed tidal flatlands in Incheon, the megadevelopment called New Songdo City, 40 miles from Seoul, is Korea's largest ever, and the first with a foreign developer. To make the most of this clean slate, master-planner Kohn Pedersen Fox (KPF) compiled a rangy list of urban precepts and archetypes to emulate aspects of the world's great cities. From conceptual schema (organic "atopia," planned heterogeneity) and hard zoning rules (graduated densities and floor-area ratios, or FARs) come *au courant* city traits: density; pedestrian friendliness; a faint cast of environmentalism; commercial hubs contrasting with "garden" residential zones; and a mixed-use "synergy" downtown. The result departs from Korean zoning rules—low, uniform FARs and the separation of building types by block—and market preferences (New Songdo City has townhouses, not apartment towers). Still, the city's 100,000 residents, commuters, and visitors can enjoy tree-dotted boulevards and a seawater canal lined with retail and cultural promenades. (And a short drive away is Incheon International Airport, which instantly became one of Asia's busiest when it opened in 2001.) The first phase—a convention center by KPF and a residential block—is currently under construction; the rest is scheduled to be built over the next decade. **C.C. Sullivan**

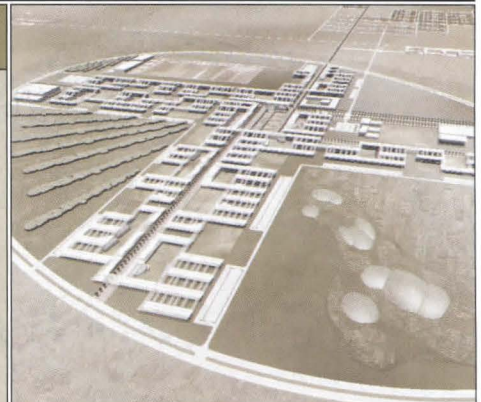


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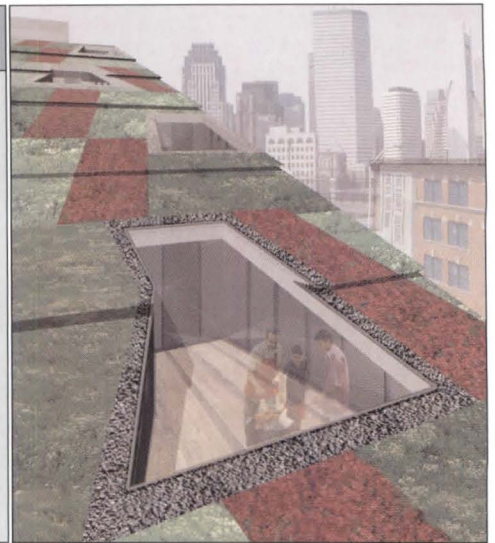
Following decades of civil war, a sustained peace in Angola has paved the way for redevelopment, including a national university for 17,000 students in the semi-arid southern edge of Luana, the capital city. The architects divided the sparsely vegetated, slightly rolling parcel of 5,000 acres into three zones, with an academic core sandwiched between research facilities to the south and housing for students and faculty to the north. They oriented the campus 19 degrees east of the north-south axis, roughly perpendicular to the prevailing winds, for effective cooling and shading of buildings. An elliptical ring road minimizes vehicular traffic in the academic zone, where pedestrian streets, courts, and quadrangles pinwheel off of a central ceremonial space. The first phase of the 6.5 million-square-foot master plan, including classroom facilities and a main library, is underway. Materials include concrete, steel windows, and galvanized-steel roofs and a system of shading devices over secondary exterior circulation paths and courts. **Abby Bussel**



The university (above) is entered through a gateway (below) and defined by a central library (left).



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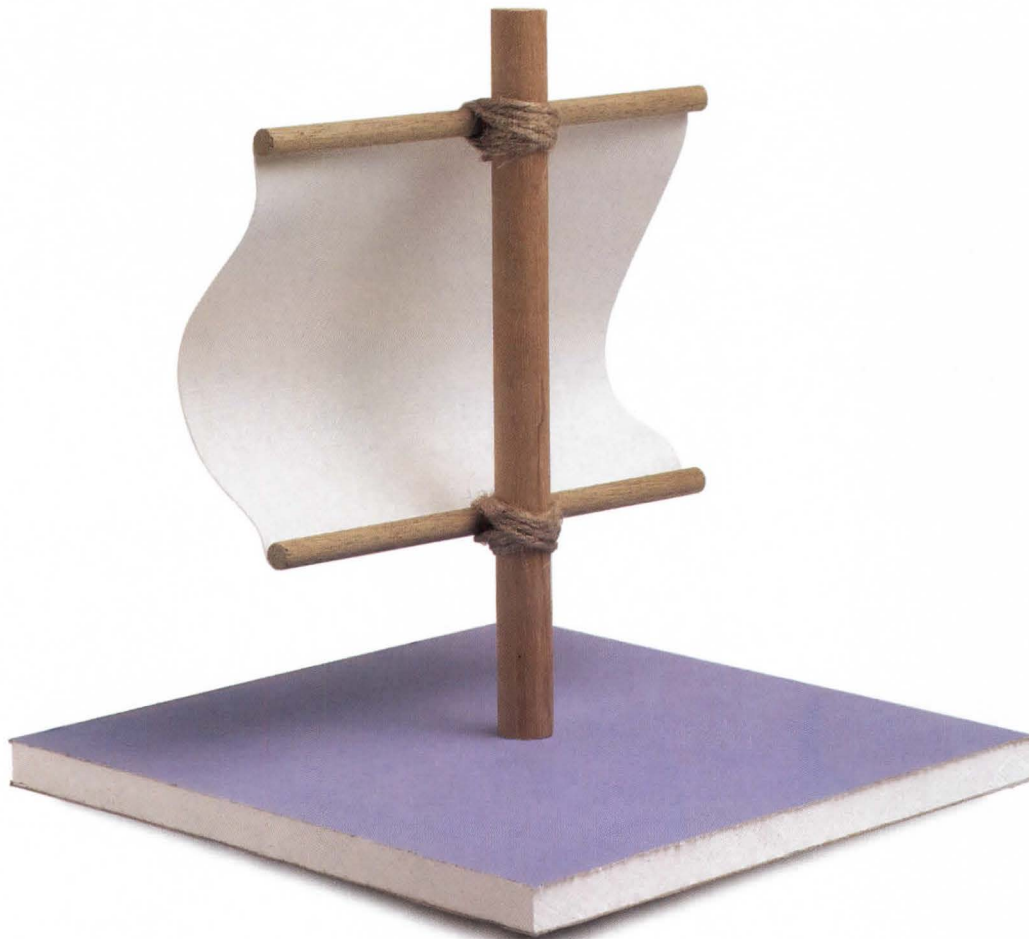
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THE BODY POLITIC

Memorial architecture may be the most challenging of design propositions. It must speak a language both universal and individual. Especially when it stands in public space—be it Ground Zero in Lower Manhattan or in Berlin, near the former headquarters of the Third Reich. To take on a particular symbolism is to embrace some of us, and put off others. To make a moral statement is to ensure both supporters and detractors. To prescribe a particular method of remembrance is one age-old approach. To insist that individual experience override all else is another, perhaps riskier way—just ask Maya Lin.

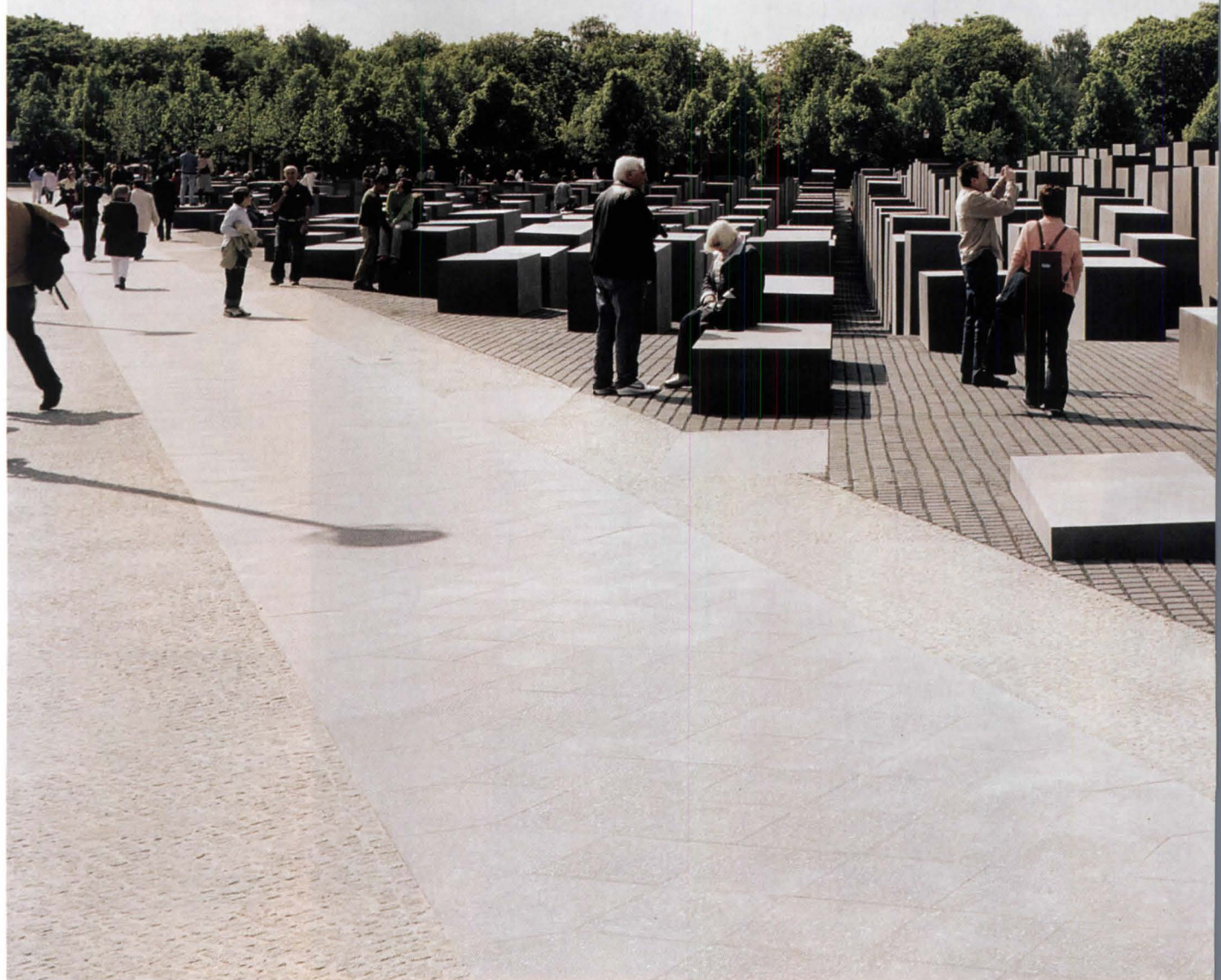
Peter Eisenman, in collaboration with artist Richard Serra, chose the latter with his Memorial to the Murdered Jews of Europe. On five Berlin acres—an expanse too small for some, and too large for others—the architect has built a field of steles. There is no “you are here to mourn or repent” sign, only undulating pathways lined with concrete blocks, slanting slightly this way and that.

Go in. Turn away. The choice is for each of us alone. ■■■

MEMORY FIELD

In Berlin, remembrance is open to interpretation at Peter Eisenman's Memorial to the Murdered Jews of Europe.

BY MAX PAGE | PHOTOGRAPHS BY JAN BITTER









There is a derisive German word for memorials: *Kranzwerfstellen*, meaning “wreath-throwing places.” It denotes a place not where memory is provoked, but where it is buried, and where politicians come because it is required—not to reckon seriously with the past.

Berlin has more than its share of *Kranzwerfstellen*. It hardly seems possible that the city needs another memorial, or that it could be successful. From the start of the movement 17 years ago to create a national memorial to the Jews murdered by Nazi Germany, there have been many, this writer included, who have been skeptical of the value of adding yet another space for contemplation of the Holocaust.

But there in the heart of reunified Berlin, something new and eerily compelling has just opened. Set on five acres, the Memorial to the Murdered Jews of Europe bears no sign, has no single entrance, no center, no endpoint, and no explanation. A 1997 competition-winning design by Peter Eisenman and Richard Serra (who quit the project when then-Chancellor Helmut Kohl insisted on changes the artist found objectionable), it is a forest of 2,711 dark concrete stelae, each 3 feet wide, nearly 8 feet long, with heights varying to more than 13 feet, all of them tilting at various angles. They form a grid of undulating pathways just 3 feet wide, forcing people to walk single file among the blocks. On the perimeter, the stelae are like benches and invite people to sit on them; toward the center they grow in height so that when standing beside them, visitors can see the city only in the distance.

The memorial is unsettling because it does not call on its visitors to perform an emotional ritual of somber faces, shaking heads, and silence. They are drawn in by curiosity and soon find themselves alone amid the stelae, or briefly confronted by another person who’s just turned a corner. They come face to face, and must look into each other’s eyes for a moment.

SENTIMENT-FREE MEMORY

The assurance of the grid—of the rational, ordered world—is undermined by the tilting, teetering stelae. The Jews of prewar Germany felt they lived in the most progressive of countries, the heart of European cosmopolitanism of the late nineteenth and early twentieth centuries, only to find that the world they enjoyed and helped build had rejected them in the most violent way. This is the closest the memorial has to a message. Unlike Libeskind’s kitschy references at Ground Zero to the slurry wall as like the American Constitution, or the “Freedom Tower” and its crassly symbolic 1,776-foot height, there are no lessons offered in neat rhetorical packages at the Berlin memorial.

This is a memorial for adults and an adult nation. The design assumes a mature citizenry and a democracy that recognizes that responsibility for confronting a nation’s past crimes rests not only with the culprits but with future generations as well. The memorial does not inculcate or preach. It challenges. A young German woman said as much to a reporter deep in the forest of gray blocks. Leaning against one of the stelae as her daughter ran around it, she wasn’t sure how she felt about the memorial, but she was sure about her country’s intent: “I hope people see that we are trying to confront our history. Maybe we can never, should never, be forgiven. But this memorial is our-

Varying only in height, the steel-reinforced concrete stelae (facing page) produce a dense, multiplaned landscape.

way of saying we are not ignoring the past.”

The location of the memorial itself says this as much as does the design. It is set at the very heart of the city’s economic, political, and symbolic core. A few hundred yards to the north is the Reichstag, the reunified Germany’s parliament building. The same distance to the south is Potsdamer Platz, something like Berlin’s Times Square, with 1990s towers by star architects clustered around a Sony entertainment complex. Immediately across the street from the memorial is the site of the new American embassy. On the other side stand the brand-new government buildings of each of the German states. Finally, just to the east of the memorial are prefabricated apartment buildings from the last years of the East German regime—these buildings occupy the site of Hitler’s headquarters. His bunker, which lies unmarked allegedly so that neo-Nazis will not use it as a rallying site, sits somewhere below one of the parking lots. This area is the Nazi’s “ground zero.”

To grasp the importance of the location, just imagine the impossible: The United States builds a monument to American slavery in front of the Washington Monument, with views directed toward the White House and the Capitol (both built with slave labor). This is what Germany has done.

AN OPEN GESTURE

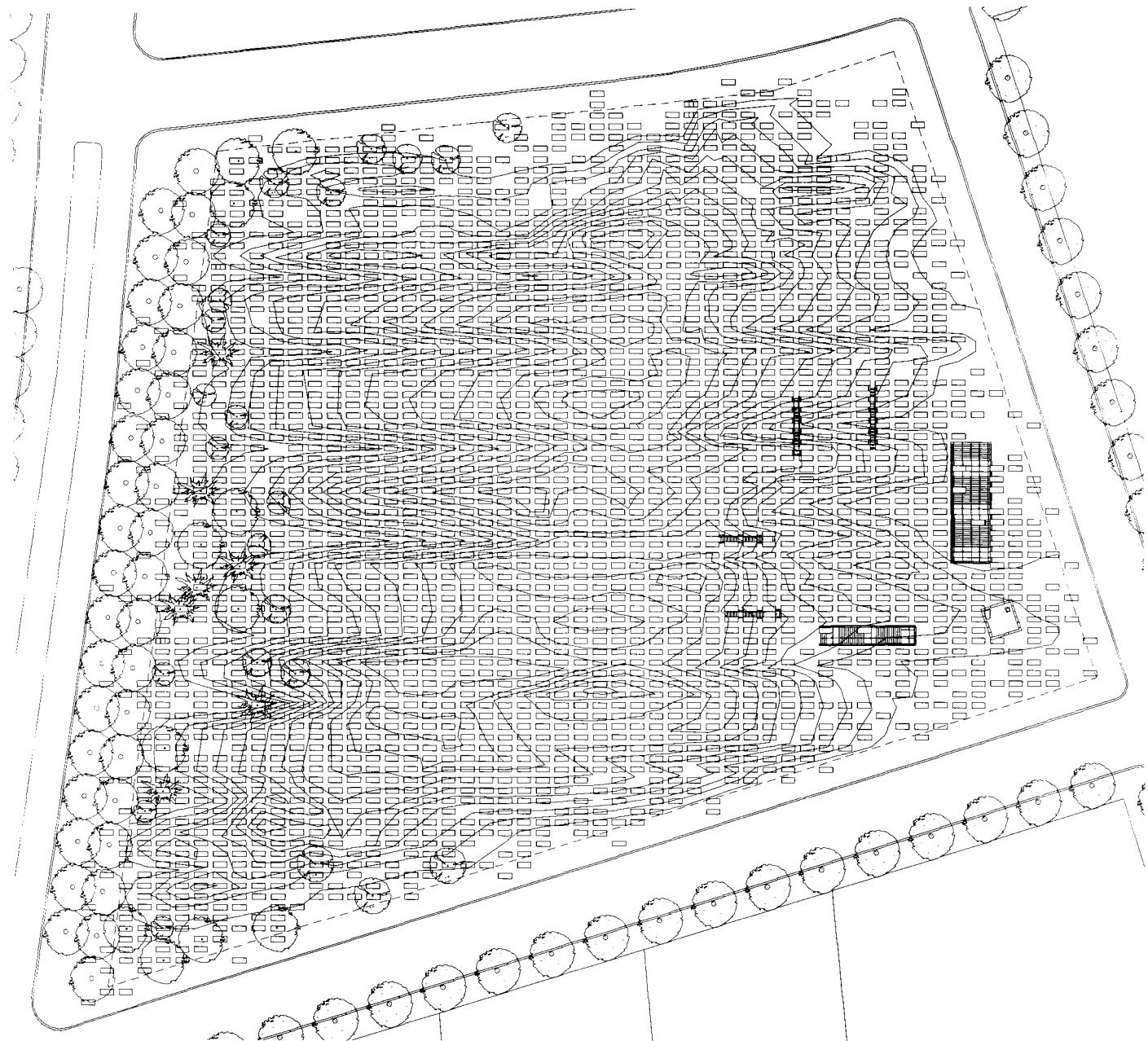
The German press has focused on the teenagers who have climbed atop the columns and the children who have found the memorial to be a perfect place to play hide-and-seek. And, yes, there was already some graffiti on a small number of the blocks. These critiques assume that this is someone else’s sacred space, where certain forms of decorum are required. But Peter Eisenman rejects this notion. For an architect who has managed to enrage others for two decades with obtuse writing and designs that sometimes fail to provide habitable spaces, he has made a remarkably open gesture in Berlin. Eisenman has said publicly that he has no rules for the use of the memorial. This is why its success or failure will only be known years from now. Will it become a place of gathering and reflection, a true public space? Or will it become an abstract sculpture that soon seems dated?

Just as Maya Lin’s Vietnam Veterans Memorial only gained its true power when visitors chose to make pencil rubbings of inscribed names and created personal shrines with objects left behind, so too this memorial will have to find its uses in German national life. On opening day *last month*, roses were left on some of the stelae; a note was attached to a sapling planted on the memorial’s edge; some stones were placed atop a low block, in the Jewish tradition of tribute to the dead.

This memorial, however, might provoke something very different than the Vietnam memorial. History is the angry retort to the optimist. Nonetheless, I left the field of stelae hopeful that it might become a place where citizens can reflect, but also meet, make out, make art, argue, and even cry.

Max Page is an associate professor of architecture and history at the University of Massachusetts in Amherst.

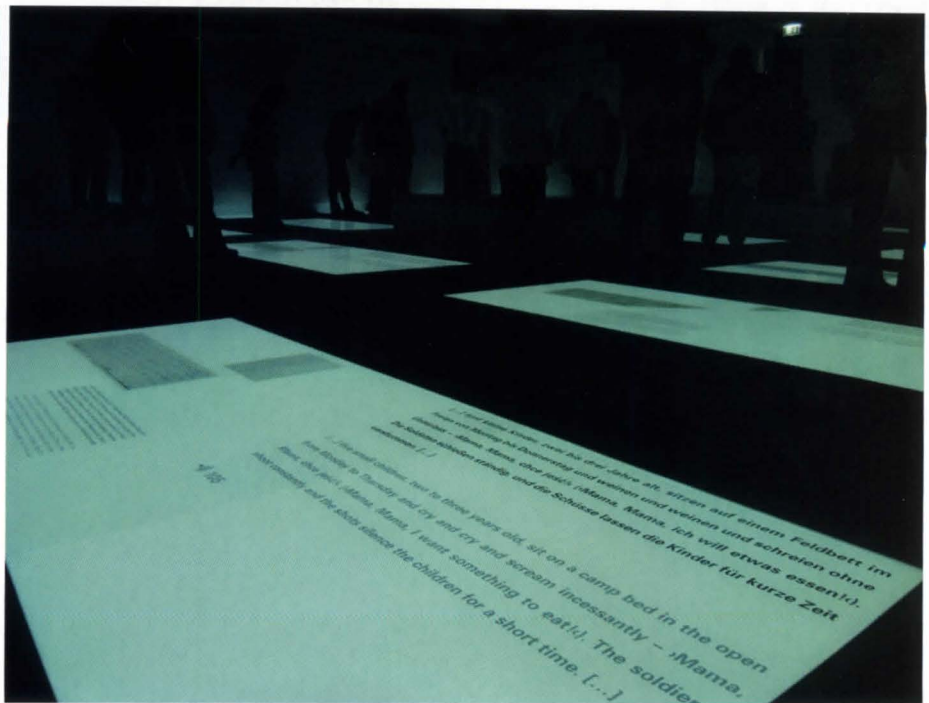




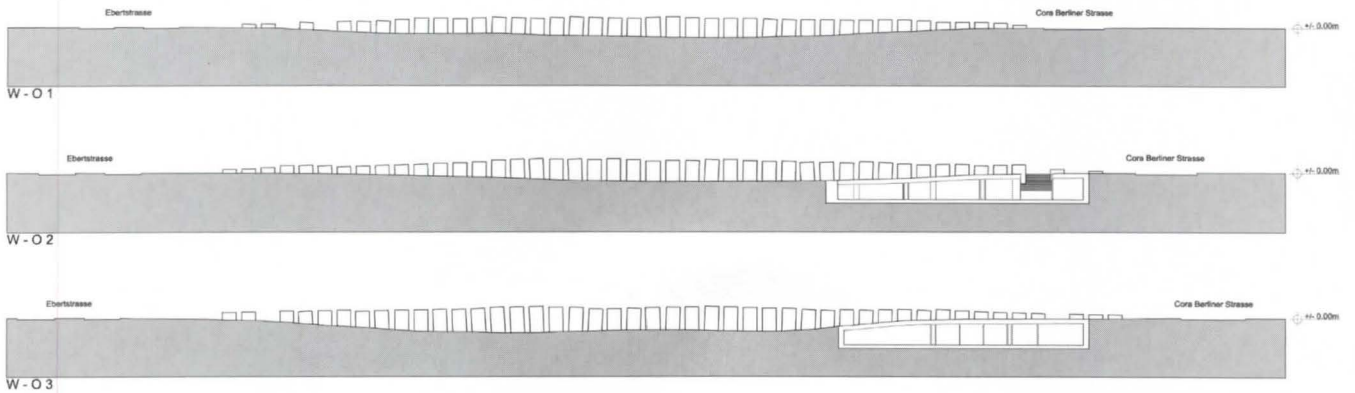
site plan ——— 40' 

Memorial to the Murdered Jews of Europe, Berlin

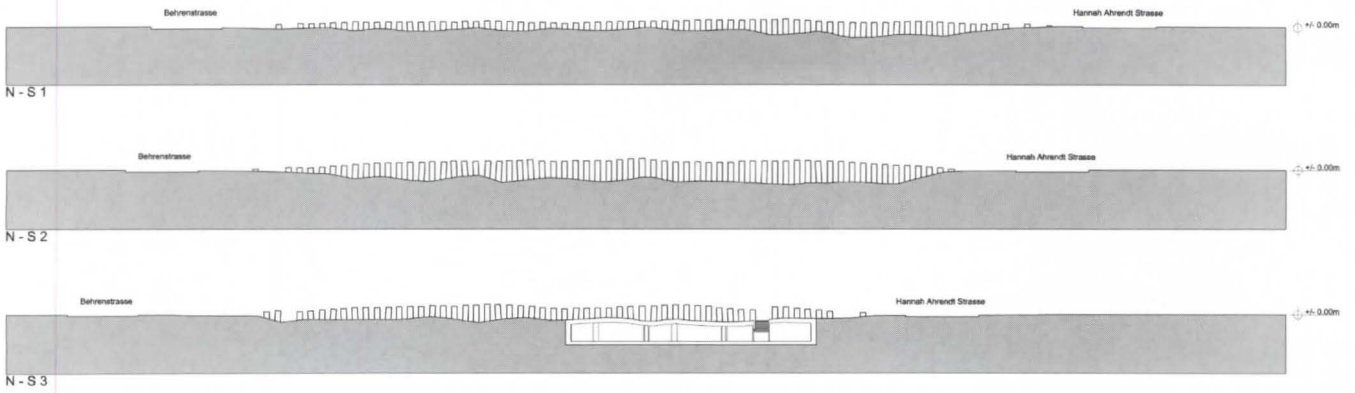
client: Stiftung Denkmal Für Die Ermordeten Juden Europas **design architect:** Eisenman Architects, New York City—Peter Eisenman (design principal); Richard Rosson (associate); Sebastian Mittendorfer, Ingeborg Rocker (project designers); Matteo Cainer, Gordana Jakimovska, Yangsong Ma, Matias Musacchio, Emmanuel Petit, Kai Peterson, Wiebke Schneider, Oliver Zorn (design team); Emily Abruzzo, Jean-Paul Amato, Lars Bachmann, Markos Beuerlein, Walter Wulf Boettger, Volker Bollig, Anja Brueggemann, Artur Carulla, Stefano Colombo, Nina Delius, Constantin Doehler, Hayley Eber, Alexa Eissfeldt, Karsten Fiebiger, Juliane Fisher, Christian Guttack, Bart Hollanders, Nadine Homann, Peter Hufer, Julia Hochgesand, Tilman Kriesel, Christian Lange, Jakob Ohm Laursen, Dirk LeBlanc, Philipp Muessigmann, Claire Sä, Nicole Schindler, Stephanie Streich, Minako Tanaka, Wolf von Trotha, Karen Weber (project assistants) **design-concept consultant:** Richard Serra **landscape architecture:** Olin Partnership **engineer:** Happold Ingenieurbuero **construction manager:** Architekt Manfred Schasler **area:** 205,000 square feet **cost:** \$32 million



A site plan shows the locations of stelae and topographic contours (facing page). The subterranean information center (above), which was added to the program after the Eisenman-Serra design was selected, detracts from the power of the memorial by suggesting that the stelae are simply an artistic introduction to the museum. Visitors themselves will determine which will dominate: the mysterious memoryscape above or the exhibition below.



east-west sections



north-south sections 35'

MAX PAGE

THE MUSEUM OF CHANCE

Herzog & de Meuron thinks like an artist—and produces a museum addition as pragmatic as it is unpredictable.

BY THOMAS FISHER | PHOTOGRAPHS BY ALBERT VEČERKA/ESTO





WALKER ART CENTER

BITS & PIECES
PUT TOGETHER
TO PRESENT A SEMBLANCE
OF A WHOLE

Architecture must be the least spontaneous of the arts. While composers and artists have long explored the unpredictable, from John Cage's variable musical scores to Jackson Pollack's action paintings, architects have often felt compelled to rationalize our every move, given the cost and complexity of building. Which is why the Walker Art Center's new addition, designed by Herzog & de Meuron (in association with Hammel, Green and Abrahamson) stands as such a significant achievement: It embraces the idea of chance in ways that few architects have.

Extending uphill from the existing brick-clad museum designed by Edward Larrabee Barnes in 1971, the addition consists of a glass-and-stucco-clad base—containing galleries, offices, service areas, and a "town square"—on top of which stands a dented, crumpled cube housing a performance hall, restaurant, and entertainment space. Facing a major thoroughfare in Minneapolis, the addition provides a piece of public art on a grand scale—and a sly reflection of its surroundings.

DISORDERLY CONTEXT

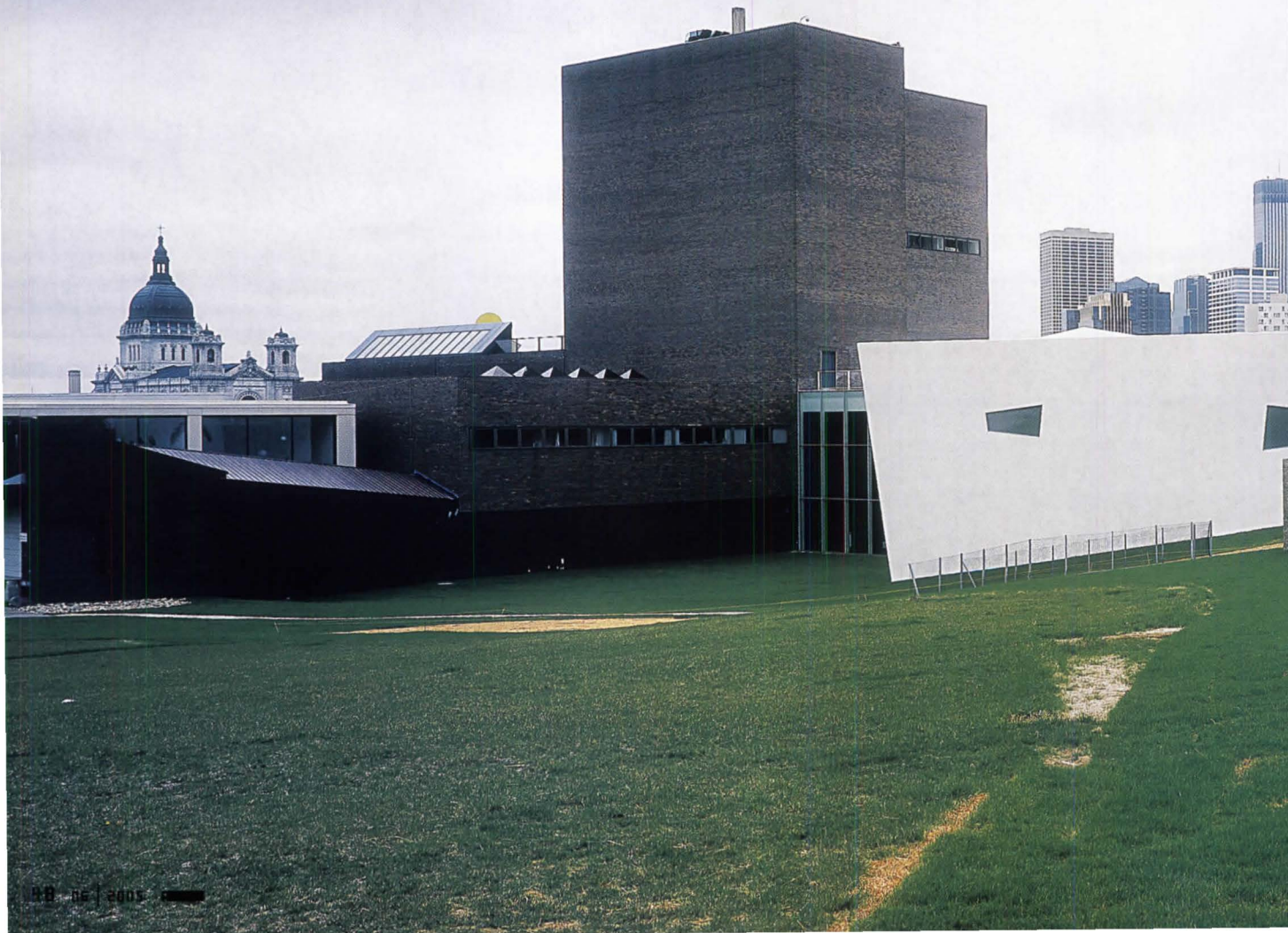
Christine Binswanger, the partner at Herzog & de Meuron in charge of the design, recognized that randomness pervades the Walker's context. The new cube, for example, which stands askew of the city's grid, responds to the similarly off-kilter orientation of nearby civic buildings, including the city's Catholic basilica, Episcopal cathedral, and Methodist

church. Like all good public art, Binswanger's scheme draws our attention to something that has long existed in the landscape but gone largely overlooked.

But she and her fellow designers also saw in that randomness an organizing principle for the building itself. While the addition's galleries have the same rectangular shape and proportions as those in the Barnes building, the relationship among the new galleries has an accidental quality, like the pieces of paper that Jacques Herzog flung across a table at a public lecture at the Walker when asked to describe the building's plan. The meandering circulation space that results from this scattering of rooms recalls an expressionist stage set or a medieval street, with sloping brown-brick floors, leaning polished-plaster walls, and jagged paisley-patterned entryways, aimed at encouraging random encounters of people with art and one another.

RANDOM ACTS OF CLADDING

Most discoveries, of course, occur by chance, as is evident in the design of the addition's exterior. Given the lobbies, stairs, and dining spaces around its perimeter, it hardly mattered where windows went in the cube. The architects studied the elevations by folding, cutting, and unfolding possible cladding materials, like a game of paper dolls gone wild. Eventually, questions of cost and ease of construction led to reducing the number of openings, with a few large, asymmetrical windows



illuminating the major interior spaces and some small, hexagonal windows providing views of the city. Yet the architects' process revealed how enough random acts could produce highly functional results.

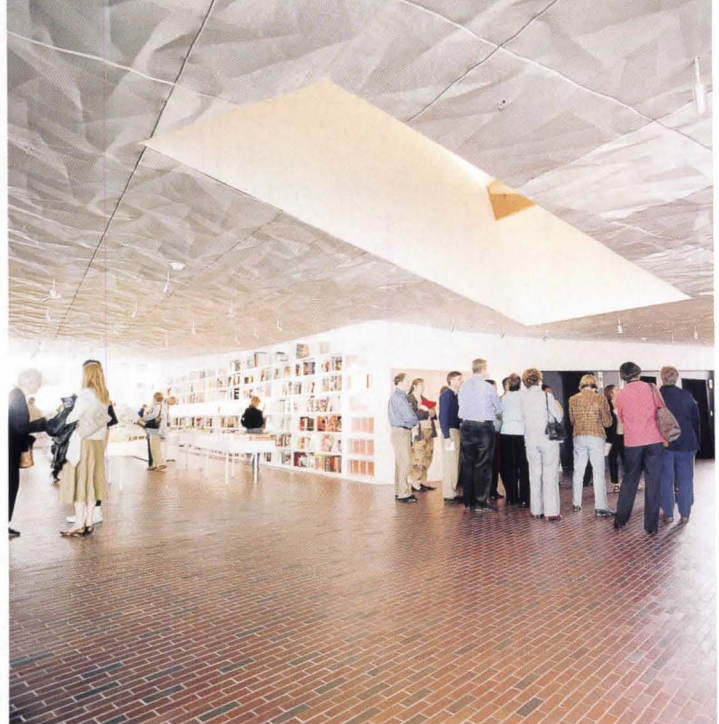
At the same time, enough repetition can enhance our perception of random differences, as artists such as Andy Warhol and Gerhard Richter have shown. That paradox arose in the cladding of the Walker addition. Because a rainscreen wall allows the outer surface to be almost anything, the architects explored a range of materials from the peculiar (wood shingles, slumped glass) to the poetic (copper, aluminum, and fabric). The last of these had almost been selected when, in a full-scale demonstration, the internally illuminated fabric skin revealed itself to be a major bug attractor—not a good idea in mosquito-heavy Minnesota. At the last minute, the architects returned to earlier cladding studies, arriving at an innovative solution of aluminum-mesh "pillows" that have a randomly crinkled outer surface and a flat inner surface attached to a low-cost insulated wall (see page 52). The four edges of

the 4-foot-square pillows have the same profile, allowing the panels to butt together in any orientation, both easing their installation and creating nonrepeating patterns on the exterior. Here, order allows randomness to occur.

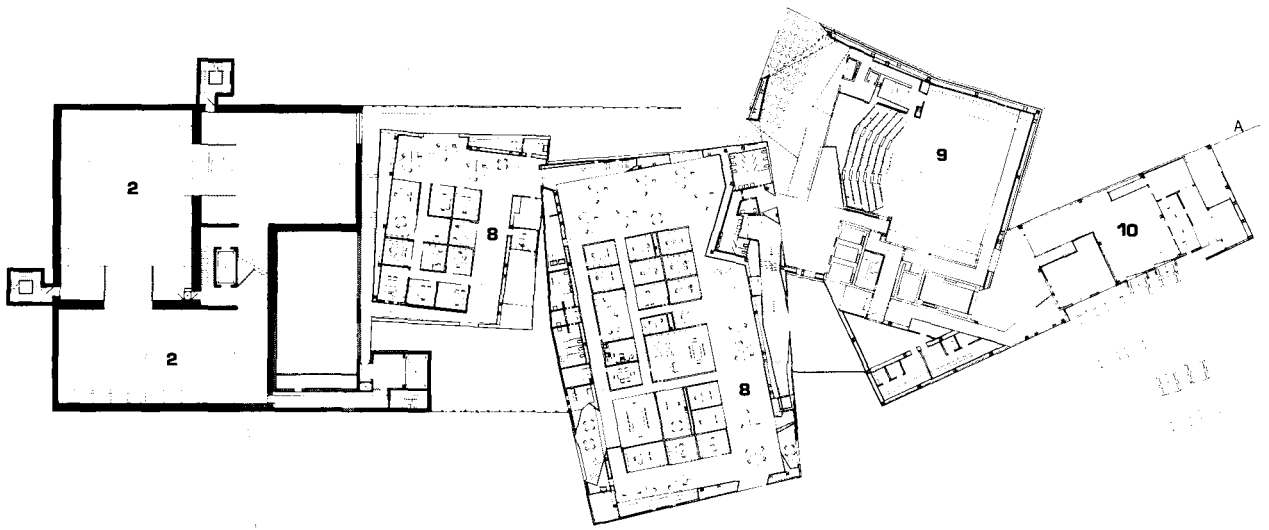
The Walker's addition stands, appropriately enough, somewhere between architecture and art, serving the needs of the client in a series of compelling spaces while also raising questions about the relationships between repetition and randomness and between order and disorder through tactile, material means. Such questions underlie every work of architecture, although unexpected occurrences often don't happen in buildings until after their completion. What Herzog & de Meuron has done is embrace the dynamics of chance in the design itself, showing how randomness can be a reasonable architectural response.

Contributing editor Thomas Fisher is dean of the College of Architecture and Landscape Architecture at the University of Minnesota.

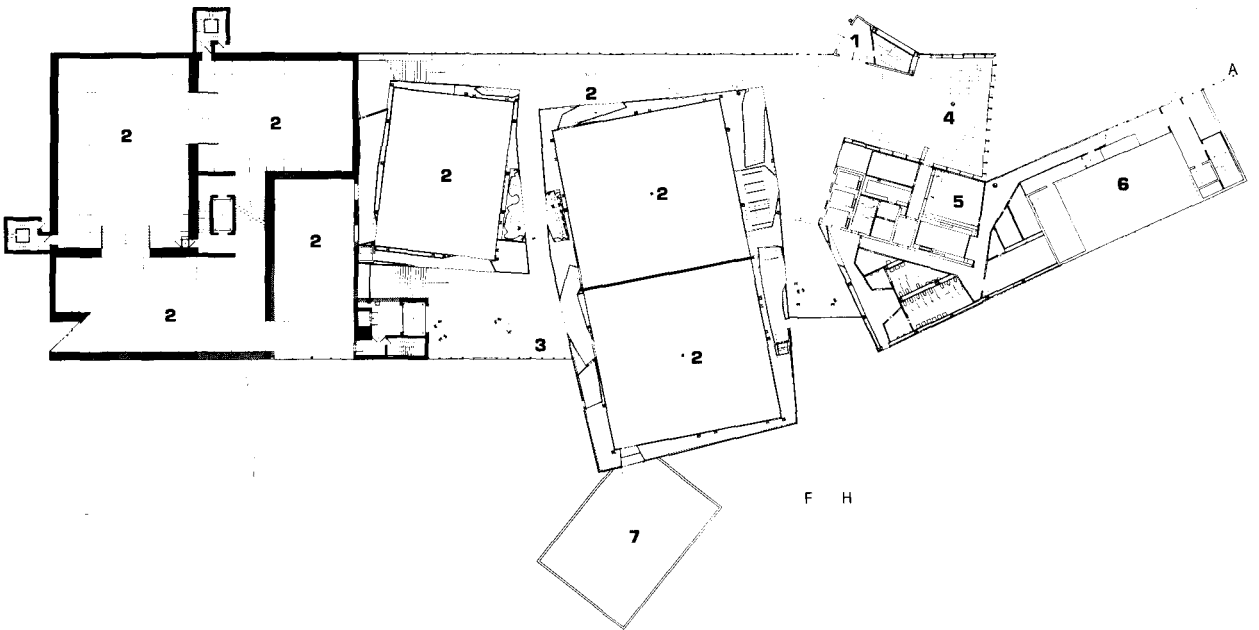




Herzog & de Meuron's skewed cube forms the iconic focal point of their Walker Art Center addition, jutting out over Hennepin Avenue (pages 46 and 47). At the back of the museum, a sprawling green campus distances the institution from surrounding structures (preceding pages). The Hennepin lounge, with Herzog & de Meuron-designed slumped-glass chandeliers, runs adjacent to Hennepin Avenue at ground level (top left). For visitors congregating outside the bookstore in the entry lobby, an aperture in the underside of the mesh cube reveals a view into the restaurant above (top right). The ceiling of a gallery entry reveals the paisley pattern that is repeated, at different scales, throughout the building (above left). On the lobby level, viewing bays face a film and video information booth (above right).

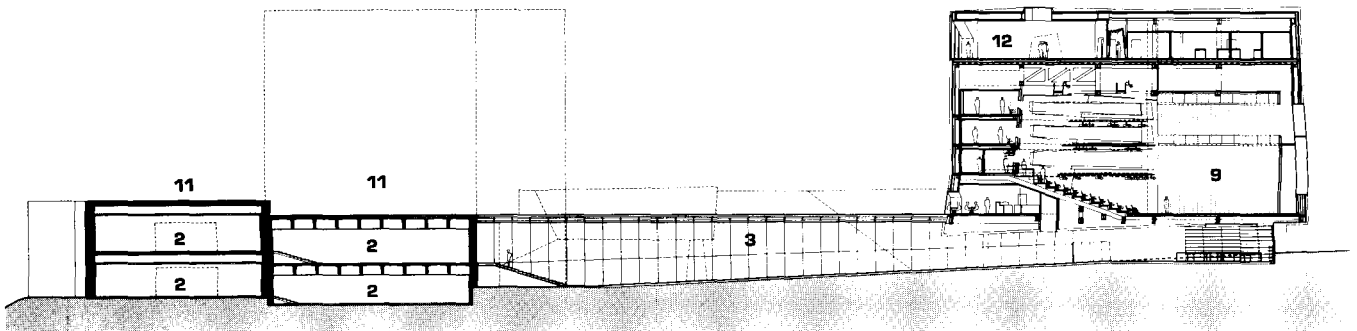


second-floor plan



ground-floor plan ——— 22' ↶

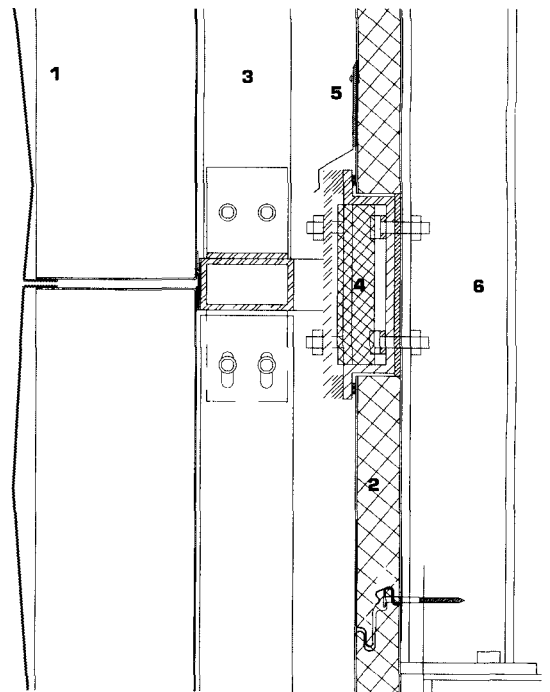
- | | | |
|---------------|-------------------|------------------------|
| 1 entrance | 6 parking | 11 terrace |
| 2 gallery | 7 outdoor gallery | 12 special event space |
| 3 lounge | 8 offices | |
| 4 shop | 9 theater | |
| 5 shop office | 10 loading area | |



north-south section ——— 14'

FROM BANAL MATERIAL, BAROQUE FINERY

At the Walker Art Center, Jacques Herzog and Pierre de Meuron continue their unflinching quest for a novel, modern language of ornamentation, this time transforming industrial banal into nothing less than high baroque. Cladding its cantilevered, silvery mass is expanded aluminum (often seen in fan vents, fireplace screens, and industrial filters), a material produced by slitting and stretching sheet stock to create diamond-shaped voids. The designers approached Hopkins, Minnesota-based Spantek with what the company describes as a “drawing of a lacy baroque pattern” in hand. Could they produce a similar effect in anodized aluminum? The manufacturer produced a series of grains, one of which met the visual spec. Then the architects prepared models of the crumpled, creased forms desired for the façade (and, in hand-pounded wood, a mold for the ornate cladding on theater walls inside). An architectural sheet-metal fabricator, M.G. McGrath of Maplewood, Minnesota, tooled up eight stamping dies to produce unique signatures that adequately achieved the visual effect. The architects detailed a boxlike panel with returns at the edges; the creasing patterns were oriented in four different directions, detailed to precisely correspond to adjacent units. Based on the building geometry, the design called for five different panel sizes, which were installed individually.



mesh façade panel sectional detail — 3.5"

- | | | | |
|---|------------------------------|---|----------------------------------|
| 1 | mesh panel | 4 | stainless-steel standoff bracket |
| 2 | insulated metal panel system | 5 | flashing |
| 3 | aluminum framing | 6 | steel structure |

Walker Art Center, Minneapolis

client: Walker Art Center **client representative:** Tegra Group **design architect:** Herzog & de Meuron, Basel, Switzerland—Jacques Herzog, Pierre de Meuron (principals); Nandini Bagchee, Carlos Bautista, Christine Binswanger, Andrzej Egli, Raphael Forny, Thomas Gluck, Nahyun Hwang, Adrian Kast, Martin Krapp, Rebecca Lowry, Florian Marti, Roberto de Oliveira, Peter Sigrist, Charles Stone, Mathis Tinner, Thomas de Vries (project team) **architect of record, engineer, landscape architects, and traffic planner:** Hammel, Green and Abrahamson, Minneapolis—Dan Avchen, John Cool, Linda Morrissey, Leigh Rolfshus, Eric Hoffman, Eric Johannessen, Eric Amel, Ryan Bicek, Greg Haley, Tyson McElvain, Grant Reiling, Matt Kreilich, Steve Dwyer, Patrick Thibaudeau, Annette Hardy (project team) **consultants:** Front (façade); DesVigne-Dalnoky (landscape); Isometrix Lighting + Design (lighting) **general contractor and construction manager:** M.A. Mortenson **cost:** \$38.2 million **area:** 110,000 square feet (expansion); 130,000 square feet (renovation)

Specifications and Suppliers

exterior metal panels: M.G. McGrath **exterior wall system:** Minuti-Ogle **glazed curtain wall:** Interclad/UAD **mesh:** Spantek

Visitors access the crinkled-mesh-clad Walker addition from Hennepin Avenue, across from the memorable 1914 Methodist church by Hewitt and Brown. The main lobby and bookshop are accessed beneath a 50-foot cantilever.



As dozens of new residential towers—most of them unremarkable or downright dreadful—have risen from downtown lots in Chicago over the last few years, many have betrayed their developers' kowtows to the predilections, real or imagined, of an interested mayor. Thought to favor green buildings, crown gestures, and pseudohistoricist detail, Richard M. Daley has helped fast-track projects that met his aims. But the mayor is as powerful as he is fickle: He recently lambasted the overall quality of new condominium projects and subtly lent his support for more modernist arrivals, including Perkins+Will's Skybridge (2003) and Contemporaine (right), which opened last year.

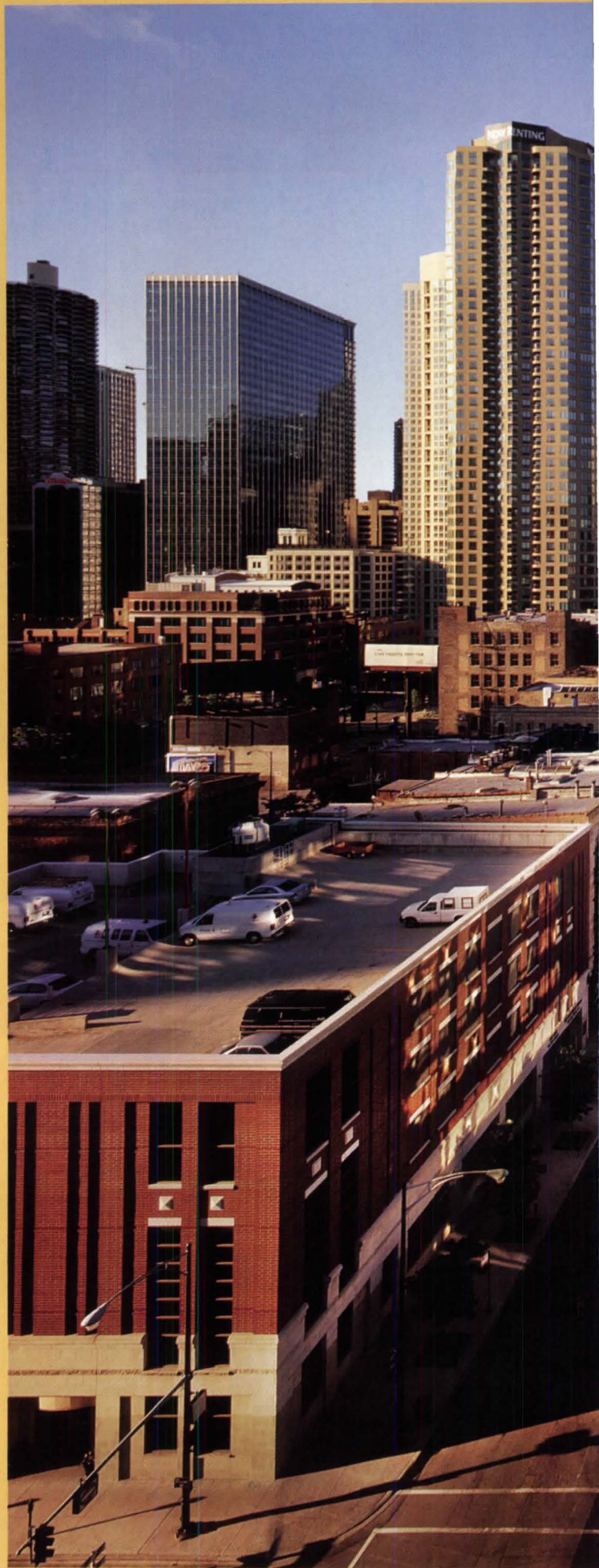
Despite Daley's skyline-shaping clout, local critics have heaped more fervent disdain on developers for their lack of savvy. Few multifamily ventures have creatively tapped into the city's collective psyche to root out innovations in imagery, design, or materiality. (Instead, they've treated design as an ersatz expediter—to get plans pushed through.) At least one name stands in contrast: Colin Kihnke, a self-styled modernist entrepreneur who built Contemporaine (and who is now working on two promising low-rise blocks nearby with local designer Brininstool+Lynch), believes equally in Chicago's modern

POINT OF DEPARTURE

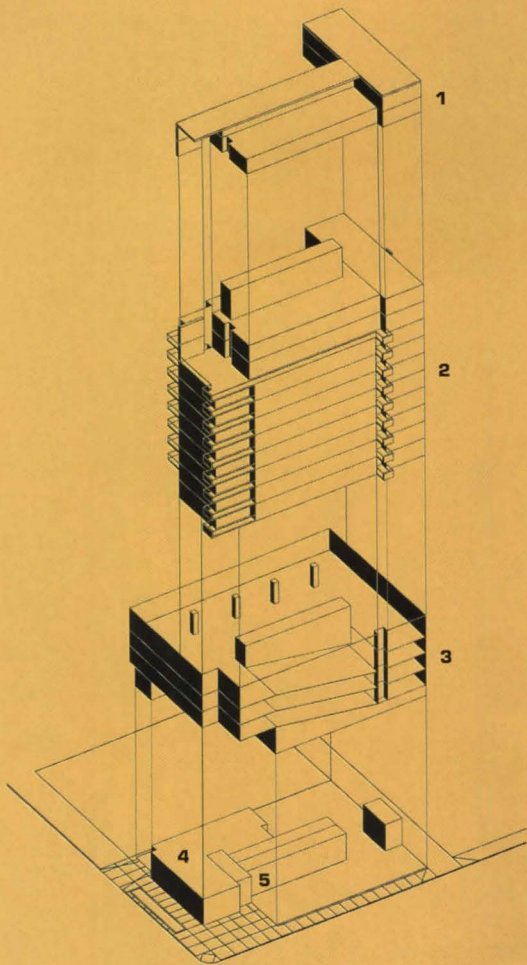
Amid Chicago's recent residential towers, a midrise by Ralph Johnson stands out. BY C.C. SULLIVAN | PHOTOGRAPHS BY STEINKAMP/BALLOGG PHOTOGRAPHY

legacy as in its hives of design-attuned, moneyed cosmopolites. His residential projects, he exults, are "individual opportunities to create a sculptural art form"; it seemed fitting, therefore, that he tapped Ralph Johnson for a prominent but somewhat disorderly site in the trendy River North area.

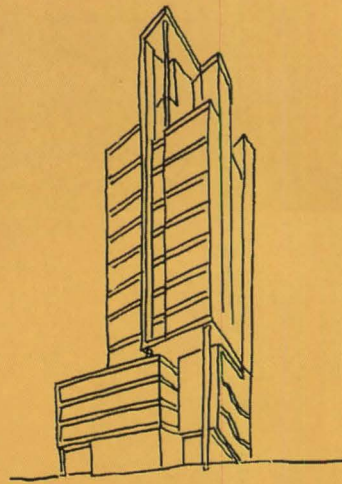
Taking a cue from its eclectic context, Johnson conceived of a 15-story, 52-unit homage to Le Corbusier, detailed and scaled suitably for the water towers, industrial lofts, and apartment blocks nearby. Rendered in unfussy raw concrete and flush window walls, the building relies on heroic columns, deep slots, and small cantilevered balconies to break down its mass. Individual floors or dwellings can be read by means of slab edges and protruding balconies, although the extents of the interlocking penthouse units above, with their soaring glass walls, are harder to discern from outside. At the upper floors and at the four-story retail and parking base—separated from the residences by a deep scoring—the block neatly erodes, revealing imposing columns and concrete plates. These monumental gestures, along with the balconies and sloped garage ramps—the latter engagingly readable on the base façade—demonstrate how form-making can generate sheer excitement. This power is even more tangible at night, given the theatricality of the stacked, graciously illuminated glass houses.





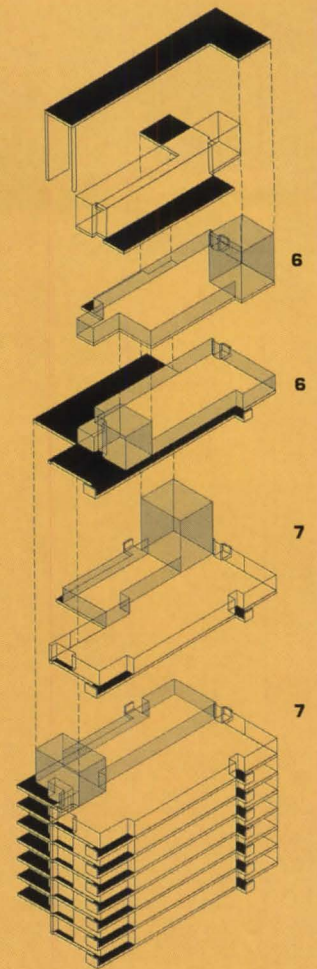


programmatic oblique — 35'

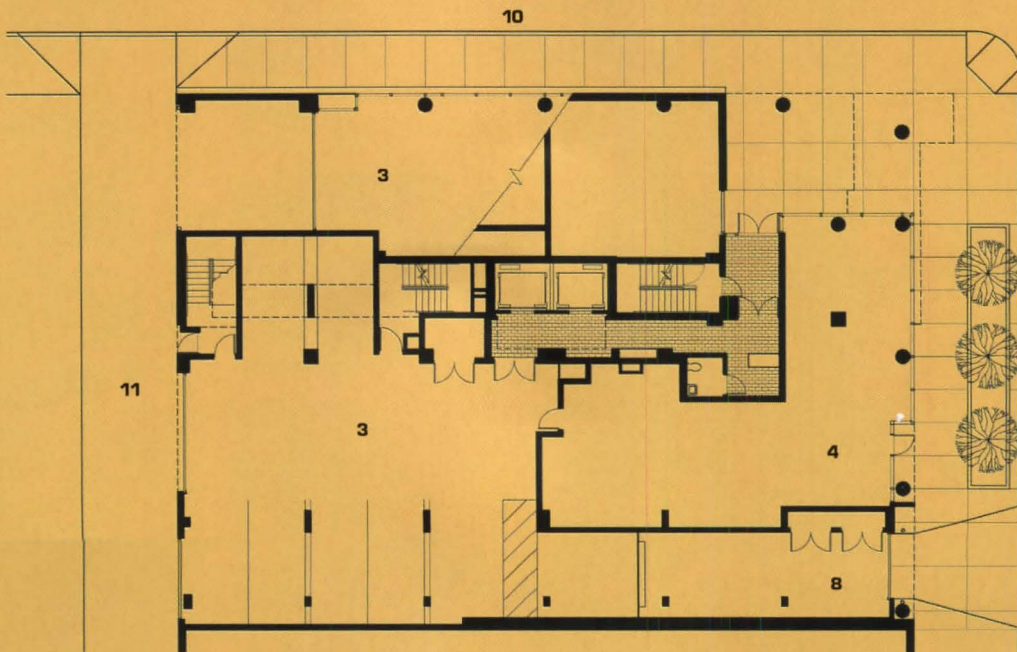


concept sketch

- 1 penthouse and mechanical
- 2 residences
- 3 parking and ramps
- 4 retail
- 5 entry
- 6 full-floor penthouse units
- 7 half-floor penthouse units
- 8 loading dock
- 9 Wells Street
- 10 Grand Avenue
- 11 alley



penthouse configurations — 45'



ground-floor plan — 12' ↑

The building's mass erodes at the base and the penthouse levels, revealing monumental columns and plates of cast concrete. The residential tower appears to be separated from the base of parking and storefront (facing page). City code sets aside 25 percent of the ground floor for retail; currently a Swedish furniture shop is in the space.



Yet it is from within Contemporaine's dwellings, with their point-blank skyline views and vertigo-inducing perimeter glass, that the essential mindset of Kihnke and Johnson becomes apparent. Several of the relatively young and affluent but otherwise diverse occupants remark on their home's "ultramodern" sensibility, but they point out its appropriateness to the city and local context. Most bought larger units than Kihnke marketed, so 52 units merged into 28. And while their association has been short—most moved in last year—they've already agreed to "maintain the consistency of the architecture" by policing one another's window treatments and balcony uses.

A COMMON FRAME

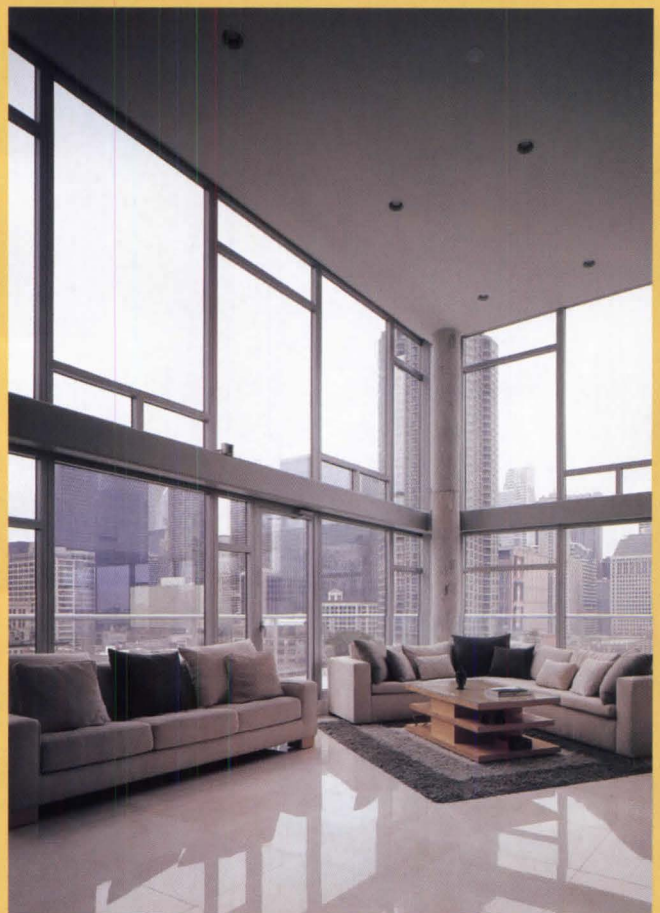
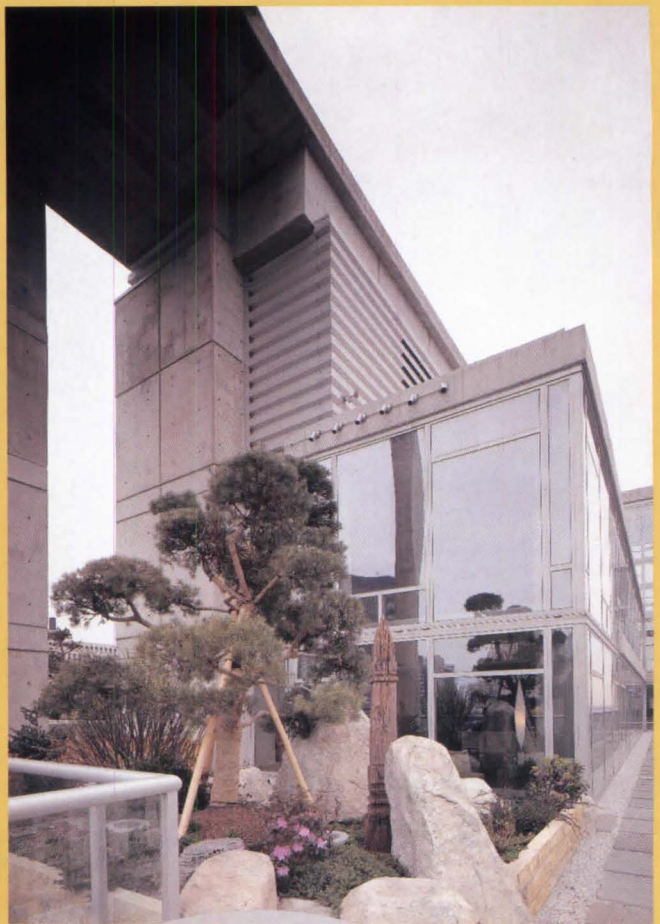
On one of the upper, sculptural floors, a terrace garden designed by Hoichi Kurisu provides contrast and some relief to the memorable rooftop tableau of post and folded plate. The plantings and rocks belong to one of four formally interlocking penthouses (each with glass walls of up to 32 feet high), occupied by a collector of Neil Goodman's rustbelt-inspired sculpture. "As soon as I stepped out of the elevator, I said, 'That's it, I have to build a Japanese garden,'" the emphatic owner recalls. His interior décor combines an Asian sensibility with modern furnishings in caramel and chocolate hues.

Most units are less stylistically eccentric. In a smallish middle-floor apartment, an athletic-looking policeman kept Kihnke's standard but trendy offerings: hardwood floors, a razor-edged "European-style" kitchen, dark granite countertops, and marble baths. Other occupants, like a real-estate entrepreneur in a half-floor penthouse, upgraded finishes and fixtures seemingly to boost the underlying aesthetic: to remain muted and calm while the vibrant cityscape outside, with its enjoyable hodgepodge of colors and shapes, takes over.

Most occupants left their concrete columns and slab undersides exposed; they seem attached to the rough, unfinished surfaces, frequently talking of them during a recent walk-through. "The earthy tone pulls everything together," says one owner, who, like the others, is as eager to define the image of his host structure as to contribute to its visual aspect. It's ultramodern, yes, they say, but grounded—to the neighborhood, the city, and the concrete grid and clayey earth below.

Like its occupying community, this building stands out from its contemporaries. Yet it's no oddball: It just suggests a fresh path for Chicago residential works. Instead of gaudy paint and faux articulation, Contemporaine charms with pure sculpting and textures (mullions and form ties) and adopts a compositional, neighborly stance rather than trying to overpower the competition. And while one can find fault in the outcome—the palette is chilly and the flat, reflective envelope loses materiality under a certain light—its attitude befits Chicago's legacy and its friendly, sophisticated, function-minded populace. Yes, it's "ultra." Okay, it has its epic moments. But this is a utilitarian and casually real building, adroitly made into market-worthy art by a thinking developer and an inventive architect. ■

In raw concrete and flush window wall, the building suits its eclectic context (facing page). Penthouse units feature terraces and high ceilings (right).





Contemporaine, Chicago

client: CMK Development **architect:** Perkins+Will, Chicago—Ralph Johnson (design principal); Dave Gutierrez, Nicol Chervenak (project managers); Fereidoon Afshari (technical principal); Bryan Schabel (senior designer); Marius Ronnet (project architect); Raymond Coleman (specifications); Curt Behnke, Cengiz Yetkin, Nicolette Daly, Steve Santucci (project team) **interior designers:** Richar Interiors, Maison de Samantha (penthouses) **landscape designer:** Kurisu International (terrace garden) **engineers:** C.E. Anderson (structural); McGuire Engineers (M/E/P, fire protection); Terra Engineering (civil) **design-build contractors:** AMS Mechanical

(M/E/P); New Aspen (electrical); C.J. Erikson (plumbing); US Fire Protection Illinois (fire protection) **construction manager:** McShane **area:** 96,000 square feet **cost:** \$14 million

Specifications and Suppliers

structure: Concrete Structures of the Midwest **window wall:** Mannix **metals:** Airlite **louvered cladding:** Alpolic **exterior glass rails:** Sterling Dula **EPDM roofing:** Carlisle **glazing:** AFG **hardware:** Schlage **paneling:** Continental Woodworking **corridor carpeting:** Mannington **window shades:** Phifer Wire **elevators:** Otis **cab interiors:** Forms+Surfaces **cabinetwork:** Bulthaup **plumbing fixtures:** Dornbracht (penthouse); Grohe

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GLASS ACT

Inspired by its neighboring river, Baton Rouge's Shaw Center gets a single-glazed rainscreen skin.

by Anna Holtzman

Sited on the banks of the Mississippi River, the Shaw Center for the Arts (May 2005, page 52) gives Baton Rouge a new skyline-making landmark, as well as a milestone in materials usage: Architects Schwartz/Silver of Boston describe the cladding as the first-ever **single-glazed rainscreen made of channel glass**.

An unorthodox choice for a rainscreen—a system more typically rendered in metal—channel glass presented several design challenges. "The sun is strong in Baton Rouge," principal Warren Schwartz relays, "so we wanted the glass to have a lot of depth." The designers turned the vertically installed channels outward and capped the leading edge of the channel flanges in aluminum edging, placing **corrugated aluminum** 6 inches behind the glass and creating a complex play of shadows. "It's an active, luminous surface both day and night," says Schwartz. In addition, the glass channels' nested configuration—both Cs face each other—provides insulating pockets of 2.5 inches of airspace.

To further invigorate the building's surface, the architects varied the widths, lengths—up to 22 feet—and tints of the channels. (Narrower channels have a greater concentration of **green-hued iron**.) To prevent damage from passersby, they turned the channels at street level inward, sandblasting them on the outside and visually setting them off from rest of the building.

Due to its location in a hurricane zone, the building had to sustain 100-mile-per-hour winds, so the architects placed intermediate supports behind the channels to hold them off the building, and a **lattice of structural tubing** throughout the façade to connect the supports to the main structure. Where the supports meet the glass surface, they appear as small points, adding yet another layer of functional ornament.

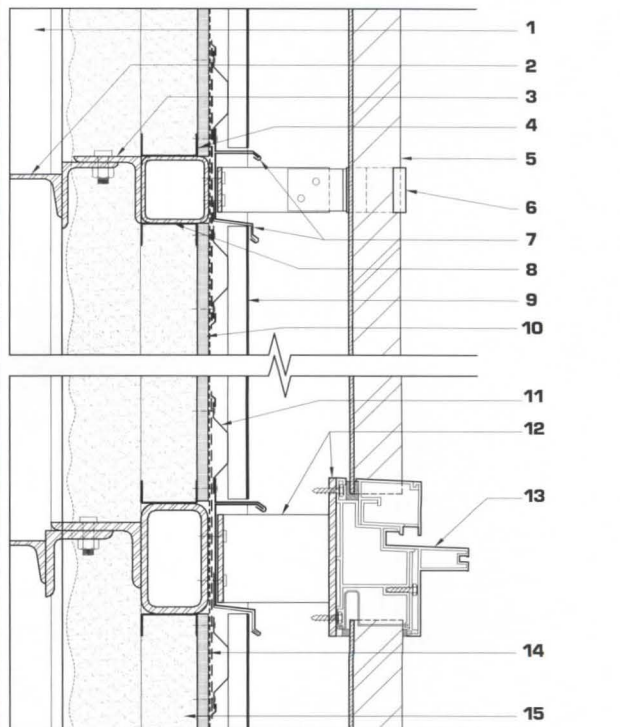
An additional regional consideration, relates Schwartz, was that, "In Louisiana, you're likely to get dirt behind the glass" due to the winds. His design team left a 2-inch space between adjacent glass panels, allowing for a cleaning wand to be inserted vertically. The architects also had to field concerns about the possibility of the glass falling off the building, so the **aluminum edging** was added to prevent broken pieces from falling, and **small vertical wires** were embedded into the glass.

With a single material, the architects managed to reflect Shaw's internal diversity—fine-arts museum, performance spaces, educational facilities—onto the building's skin, which is punctuated by a single window incised at the fifth-level museum lobby. In exchange for the expansive view of the Mississippi that this portal welcomes in, the Shaw Center offers up its own fluid image to the city outside—an image that will soon be as much a symbol of Baton Rouge as the river itself. ■



At street level, the Shaw Center's glass channels are turned inward and sandblasted; higher up, translucent channels allow views of opaque art-gallery walls, which are installed adjacent to the glass rainscreen.

- | | |
|--------------------------|-----------------------|
| 1 steel structure beyond | 9 corrugated aluminum |
| 2 steel channel | 10 exterior sheathing |
| 3 steel angle support | 11 metal channel |
| 4 metal framing | 12 aluminum support |
| 5 channel glass | 13 channel support |
| 6 aluminum wind clip | 14 damp-proofing |
| 7 aluminum flashing | 15 foam insulation |
| 8 primed steel tubing | |



channel-glass façade detail 5"

GUIDING LIGHT

Toronto's skylight-stripped terminal affords room to breathe—and room to grow.

by Bay Brown

Luminosity is the operative word at Toronto's Lester B. Pearson International Airport. Through its elegant exposed structure and expansive skylights, the three-phase, almost \$4 billion project designed by the competition-winning team of Moshe Safdie and Associates, Skidmore, Owings & Merrill, and local architect Adamson Associates Architects, creates an ethereal experience in a climate that can be less than uplifting.

Engineering firm Arup created Pearson's master plan, a 30-year terminal development scheme that allows for the airport to reach an annual capacity of 50 million travelers. The firm has the dubious distinction of having designed the airport's original terminal in the late 1950s. Its limited capacity made it obsolete upon completion in the mid 1960s, a deficiency only worsened by the introduction of the 747 jumbo jet, which swelled passenger loads. By the 1990s, with new technologies and heightened security requirements further complicating the picture, the airport authority decided to start again from scratch. In anticipation of passenger traffic that will hit 29 million by 2015, the new plan has options for expansion built in.



The toroidal roof of Toronto's new terminal (top) crowns the departures hall. Passengers follow skylights that line each pier building (above) to find their gates.

Designed as a crescent-shaped central terminal—or “processor”—the structure sprouts pier buildings that extend out into the airfield and house the gates. When the

third pier opens in 2009, the project as planned will be complete, yet the option of doubling the number of piers as increased usage necessitates will require minimal reconstruction. The first was opened in April 2004.

With this unveiling, the architects have created a building that reflects the very synergy of their team effort. While Safdie concedes that the airport's structure itself is not innovative, he believes its use is. “The arched shell of the processor uses daylight in a way that it is integrated into the structure, highlighting the beams,” Safdie explains, adding that “The mechanical, structural, and light are conceptually one.”

The skylights, which run horizontally through the terminal roof and axially down the piers, are the organizing—and wayfinding—principle, as they allow light to demarcate distinct spaces. “The key element of the design is bringing light into the building,” explains Safdie. “If you follow the light you get to where you need to go.” Light ushers travelers to their gates, and also filters down three levels to the baggage and drop-off area.

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The airport's steel arch system spans the terminal's 230-foot girth (above), creating an unobstructed vista through which light passes down to the baggage-claim area on the lower level (above right.)

The design draws inspiration from the work of master engineers Pier Luigi Nervi and Eladio Dieste. But, according to Arup project design manager Ignacio Barandiaran, the Pearson project team was envisioning steel and not the concrete and bricks, respectively, of Nervi and Dieste. "When we started working on the design with David Childs and Moshe Safdie we played around with triangular grid shell structures that would arch across the departure hall [and also] take advantage of the resulting **toroidal geometry** of the curved section and the curved plan working together," Barandiaran elaborates. "The more linear arching structure was a natural evolution as the pieces came together into a single, integrated terminal design.

"We liked the play of the curves in section and in plan and how the departures hall transitions to the concourses and other spaces on the airside of the terminal," Barandiaran adds. "The arched roof allowed us to create a tall, billowing space above the departures hall, and it suggested ways to let in natural light in just the right places." Further, its lightweight steel components made it an economical structure, while the arches made fabrication straightforward. And the column-free design allowed a **top-down construction sequence** permitting the roof to be built first—a benefit in a city known for its unfor-

giving winters. credits and specifications at www.architecturemag.com

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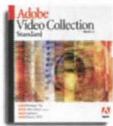
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QUICK AND BRIGHT

In the hands of Lionel Theodore Dean, rapid manufacturing has a brilliant future.

by Robert Klara

Say "a handful of dust" to most any British citizen, and Evelyn Waugh's classic 1934 novel about philandering aristocrats will likely come to mind. For U.K. designer Lionel Theodore Dean, however, that phrase is bound to trigger a very different thought: the future of manufacturing.

The dust, in his case, is nylon in powder form. And the future is a specialized segment of digital fabrication known as "rapid manufacturing." With the help of software and a **selective-laser-sintering** (SLS) machine, Dean is creating lighting fixtures plucked, virtually uninterrupted, from his imagination. He goes from 3-D computer drawing to manufactured product—not in months or weeks, but in hours.

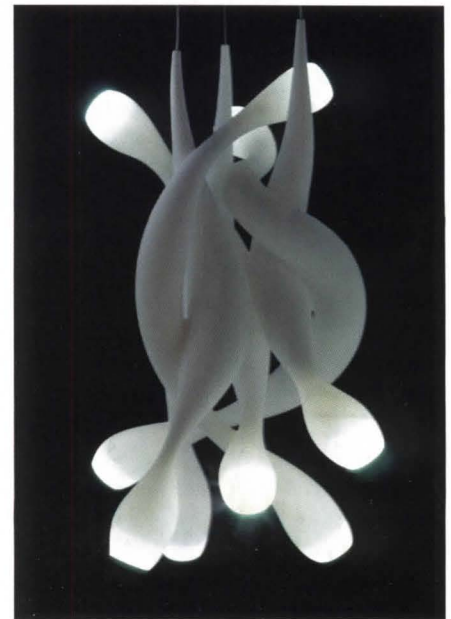
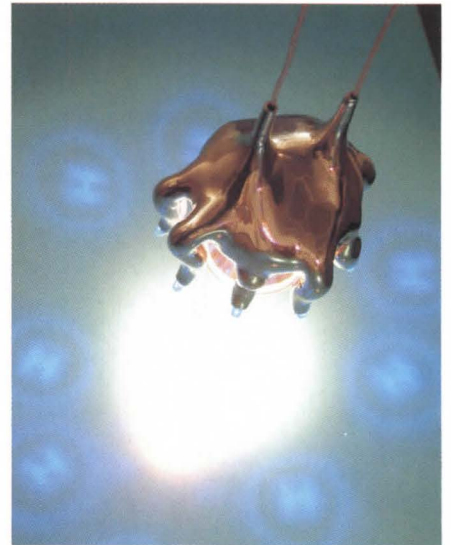
These are not wobbly prototypes or scale models: Dean's products are finished, durable components that have been exhibited at design festivals in London and Milan. What's more, the technology he's helping to popularize could have future applications for architects that go well beyond lighting: A variety of decorative appointments and furniture could, in theory, soon go directly from the screen to the scene. "You need an expensive piece of machinery, but it's quite easy, really," says the designer, whose Lincolnshire based company Future Factories (www.futurefactories.com), grew out of Dean's year-long design residency at the University of Huddersfield in 2002.

A LITTLE DAB OF DIGI-FAB

For the uninitiated, **digital fabrication** refers to the practice of taking 3-D CAD drawings and then feeding translations of the digital files directly to computer-



Through rapid manufacturing, Lionel Theodore Dean's undulating fixtures go from development phase to finished product within hours. His unique, organic designs include Tubers (bottom and left), Nautilus (right), and Creepers (above), now sold by Belgium-based Materialise.



ized cutting or milling machines (see "An Abode With G Code", page 66). The process greatly reduces errors and also cuts costs in terms of both saved time and labor. But digital fabrication, in its prevailing usage, refers mainly to the cutting of wood, metal, or composite feedstock, which still must often be joined together or finished in some way.

What makes **rapid manufacturing** different is that it goes from the development phase directly into an end-use product. "There are quite a few exam-

ples of CAD files driving machines with laser cutting and **CNC milling**," Dean says. "But that's not as sexy as getting your product straight out of a machine."

Maybe not, but the process is not as instantaneous as it may sound. To create a lighting fixture, for example, Dean first develops a design using 3-D modeling software, which then separates his finished model into thin horizontal slices. The resulting STL (short for **stereolithography**) file is then plugged straight into the SLS machine, which physically builds the object by restacking the slices from the bottom up. First, a wiper blade spreads a thin layer of nylon powder across the base of a chamber that's heated to just below the nylon's melting point. Then a laser cuts out the shape of the first slice. After this, the platform drops down 1 millimeter, the wiper spreads another layer of powder, and the laser repeats the process for the next slice up. The heat from the beam is enough to bump the temperature up to nylon's melting point, which automatically fuses, or sinters, the second slice to the first. The machine continues its work until it runs out of slices to trace and the work is complete, save for Dean's having to run a string of LEDs through the finished lighting fixture by hand.

Dean, who's just started taking on commercial work, is quick to point out that his process is not "**mass customization**"—a much bandied term that refers to the ability to change individual components of an otherwise standardized product to fit specific usage needs. "This is mass *individualization*," he says. "If two different products cost the same to produce, why make the same thing?"

Rapid manufacturing through SLS has advantages that go beyond the ability to produce original works with assembly-line efficiency. The range of possible forms is greater because no allowance need be made for popping out a mold. And certain components—say, hinges—that would ordinarily have to be assembled separately, can, with SLS, be made part of the original fixture.

THE DARK SIDE

But Dean's method, like any pioneering technology, has its share of drawbacks, too. For instance, while he extols the virtues of several software platforms—Rhino 3D (www.rhino3d.com) and 3D Studio Max (www.discreet.com) among them—he hasn't found one product that does everything well. "Software's not been developed with this kind of **free-form modeling** in mind," he says, though he expects that to change as rapid manufacturing becomes prevalent.

And while fabricators with laser-sintering technology will charge depending on machine time (which grows proportionately with the size of the object being manufactured), the machines themselves are expensive (as much as \$375,000 or more). Companies such as 3D Systems of Valencia, California (www.3dsystems.com) sell a variety of SLS equipment.

Although SLS fabricators can use a range of **powder bases** including stainless steel, rubber, and even ceramic, Dean's line has thus far been restricted to nylon. It's a great material for avant-garde lighting, though perhaps not as ideal for other uses. His fixtures need to be kept out of direct sunlight or they'll suffer shape distortion. And, like Henry Ford used to joke about his Model T, the customer can have any color he wants, so long as it's black (well, grayish-white in

Dean's case.) "As demand increases," he predicts, "the chemical companies will produce colors." But for now, LEDs supply the desired tints.

Liabilities aside, that demand is just around the corner if Dean is right. "We've gone through a stage where people can afford every mass-produced thing you can imagine, and now there's a desire for something that's more personal, individual, and something one can identify with," he maintains. Who knew that dust could be so valuable? ■

AN ABODE WITH G CODE

"What we do today takes just a fraction of the time it used to," says Glenn Traylor, district sales manager for Pompano Beach, Florida-based **Alpine Engineered Products** (www.alpeng.com), a pioneer in digitally driven manufacturing. When an architect in this state—where new homes are growing faster than the palmettos—wants his building components digitally cut and milled, chances are it happens in Alpine's factory. And it happens fast, too: "A 2,000-square-foot house roof system would have taken us several weeks to make back in the old days," Traylor relays. "Today, it takes an hour and a half."

On the national stage, Alpine fights for its slice of the digital-fabrication pie with other U.S. competitors, including Chesterfield, Missouri-based **MiTek** (www.mitekinc.com) and **Truswal Systems** (www.truswal.com) of Arlington, Texas. All promise to make your trusses and house-framing components with jackrabbit speed—but how does it work?

Architects who work with Alpine have three ways to get their designs to the digital fabrication stage. They can submit old-fashioned paper drawings, which in-house engineers will recreate in a digital format. Or, if they've created a design using 2-D software like AutoCAD, they can export that file to Alpine, which will **translate it for the manufacturing stage**, giving it a third dimension. Finally, an architect can use the company's proprietary design software, called View, which is a complete toolkit that makes machine-ready design files. (Both MiTek and Truswal have similar software.)

Because most architects use AutoCAD, the second route is the most common. Translating CAD files into a form the cutting and milling machines can deal with requires a digital ferryman of sorts, who will use an interpreter program (Alpine prefers MasterCam) to make the transition. **CNC machinery**, for example, only understands a language called **G Code**. Once that's done, the shop loads the digital files up into the machines, and the sawdust begins to fly. In that respect, the shops sound and smell just like a mill in the olden days, but you'll see more computers than carpenters scattered around the floor. "It's been an evolution of sorts," Traylor says. ■



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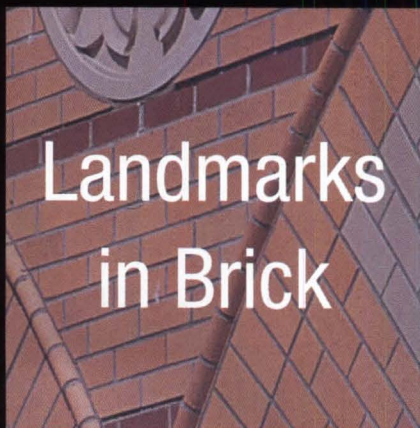
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product: **Esto**
 manufacturer: **Berman Glass editions**
 web: bermanglaseditions.com

A new company formed by a partnership between Joel Berman (of Joel Berman Glass Studios) and Jordan Goldstein, a principal at the Washington, D.C., office of Gensler, Berman Glass Editions has produced a new texture for pressure-formed architectural glass. Available in sheets of up to 80 inches by 132 inches and in varied thicknesses, the random, multidimensional design is embossed on the molten glass by steel molds.



product: **Rialto, Solista, Helix**
 manufacturer: **Carnegie**
 web: carnegiefabrics.com

These three new drapery fabric offerings help create a soft, refined environment for retail and hospitality applications. All developed in collaboration with Swiss textile manufacturer Creation Baumann, Rialto (below) features Carnegie's Trevira polyester yarn in a linenlike texture; Solista is an ultrafine commercial sheer; and Helix has a metallic sheen. All are available in many colors.



product: **Arc**
 manufacturer: **Harter**
 web: harter.com

Mixing and matching is in, and not just in the new summer fashions. Young New York City-based designer Jonas Damon has created a series of different chairs centered around basic elements. Users can choose from an array of seats, backs, arms, and bases, for attachment to a uniform support frame of die-cast aluminum. The product line allows for design uniformity across a project by coordinating task and occasional chairs and stools. Arc is available in a variety of colors and with upholstered or hard seating surfaces.



product: **Product2Faced**
 manufacturer: **Lees Carpets**
 web: leescarpets.com

This new broadloom carpet line utilizes "4-D tufting" technology that causes the product to appear one color from one direction and a second color from the opposite angle. Available in three patterns—I-Spy, a camouflagesque print, Alter Ego, and Still Moving, featuring horizontal lines—and in 14 colors each, Product2Faced is designed to spice up commercial and retail applications. Alter Ego (below) not only changes colors, but also design appearance, from a lattice to a floral depending on the view, and is available in tile as well as broadloom.



product: **Circle Circle**
 manufacturer: **Innovations**
 web: innovationsusa.com

The newest pattern in the company's Re:Solutions line of wall-coverings, Circle Circle is available in nine bright colorways. Made from 100-percent post-consumer recycled polyester, this durable material adds visual interest and color to retail or hospitality spaces.



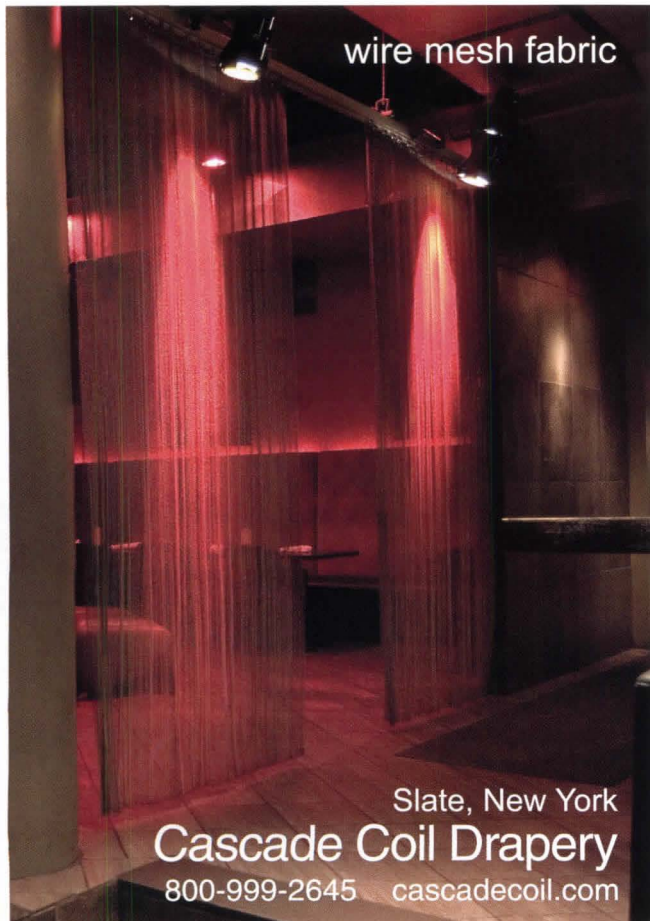
- ☒ product: **Way**
- ☒ manufacturer: **Milliken**
- ☒ web: millikencarpet.com

The designers at SOM Collaborative, a four-year-old research-and-development offshoot of Skidmore, Owings & Merrill's interior design department, have produced a modular carpet collection in conjunction with Milliken that suggests a 3-D floor plane through its texture and scalability. According to Stephen Apking, interior design partner at SOM, the impetus for the collection came from the firm's work on large-scale projects such as airports, where there is need to carpet spaces both modest

and vast. "We were looking for something to integrate these scales, and the floor plane seemed a good location for this," he explains. Using a proprietary software program developed by SOM called Pattern Builder, architects can enlarge or reduce the scale of Way's three patterns—Forcefield (left), Riverbed (right), and Urbanscape (middle)—to vary the density of the floor surface in different parts of a room or building. The pattern is printed, rather than woven, onto the 36-inch tufted, loop-pile modules with Milliken's Millitron, a technology that produces fine gradations of color and delicate line weights. Way is recyclable through the manufacturer's reclamation program and can be specified with a high-friction coating that allows glue-free installation—an asset when tallying LEED points.



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- Winners must also agree to have their projects, names, and portraits published in *Architecture* magazine and in any other media, and must secure permission for publication from their clients. Entrants must be willing to provide materials necessary for publication and exhibition of winning projects, including finished photography.

AWARDS

- Judging will take place in July 2005. Winning entrants will be notified in August 2005, and their projects will be published in the November 2005 issue of *Architecture*. Winning projects may subsequently travel as a curated exhibition.

SUBMISSION REQUIREMENTS

- All projects must have been completed after July 2003.

10 All entries must include clear, comprehensive images of both the interior and exterior of the house (no more than 24 photographic images) and presentation-quality plans and sections.

11 All entries must include at least one photographic image documenting the project's physical context.

12 All entry material must be firmly bound in binders no larger than 11 inches by 17 inches (9 by 12 inches preferred). (Entrant must supply binder; please avoid fragile or sharp materials, etc.) Slides should be submitted only as supplementary material. Videocassettes, CD-ROMs, models, and any unbound material will not be considered.

13 Project Facts Page. To ensure clarity, the first page of each entry binder must list project facts under the following headings: Location/Context, Site Characteristics, Zoning Constraints, Client/Program, Construction Systems, Sustainable Features (if any), Schedule, and Costs per Square Foot. This information must include square footage, overall cost, and specific construction materials and systems. Entries must also include a North arrow, legend, and project scale. All project facts should fit on one page.

14 To maintain anonymity in judging, names of entrants or collaborating parties may not appear on any part of the submission except the entry forms. Do not, however, conceal the identity or location of the project.

15 Please do not send original drawings; *Architecture* accepts no liability for submissions.

16 Each submission must be accompanied by a signed entry form and a check for the entry fee (\$150 for the first entry, \$125 for each additional entry). Reproductions of the form are acceptable. Complete the entire form and put it in an unsealed envelope attached to the binder's back cover.

17 Entrant MUST enclose one bound set of 8-1/2-by-11-inch photocopies of each entry. The first two pages should be copies of your entry form and the Project Facts Page, in that order. Secure the photocopies to the inside of the back cover of your binder.

ENTRY CATEGORIES

18 Identify each submission on its entry form as ONE of the following categories (mandatory):

- A. 1,500 square feet (140 square meters) or smaller
- B. 1,500 square feet to 5,000 square feet (465 square meters)
- C. More than 5,000 square feet
- D. Apartment/condominium (individual residences)
- E. Multifamily building (2-10 units)

ENTRY FEES

19 An entry fee must accompany each submission. The fee for the first entry is \$150; subsequent entries are \$125 each. **OPTIONAL: Late entries may be received up to July 19, 2005 for an extra fee of \$50 per entry.**

20 Make check or money order payable to *Architecture*. (Canadian and Mexican entrants must send drafts in U.S. dollars.)

21 Fee must be put in an unsealed envelope with the entry form.

RETURN OF ENTRIES

22 *Architecture* will return entries ONLY if they are accompanied by a self-addressed, stamped envelope. *Architecture* assumes no liability for loss or damage.

ENTRY DEADLINE

23 All entries must be received by 5 p.m. EDT on July 15, 2005 or by 5 p.m. July 19 if accompanied by late fee (see rule 19). To ensure timely receipt, *Architecture* recommends using a carrier that guarantees delivery time.



Entrant Name _____

Contact Name _____

Address _____

Phone Number _____ Fax Number _____

Email Address _____

Project Location _____ Entry Category _____

Signature _____

Name _____ Date _____

Entrant Phone Number _____

| | |
|-------------------------------|-----------------|
| Fee: \$150 (first entry) | \$ _____ |
| \$125 (each subsequent entry) | \$ _____ |
| Late fees (\$50 per entry) | \$ _____ |
| Total | \$ _____ |

I certify that the parties credited executed the submitted project and that it meets all eligibility requirements. I understand that *Architecture* may disqualify any entry that fails to meet submission requirements. I grant *Architecture* magazine sole first publication rights to the project. (Signer must be authorized to represent those credited.)

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Name _____ Date _____

(MAKE CHECK PAYABLE TO ARCHITECTURE.)

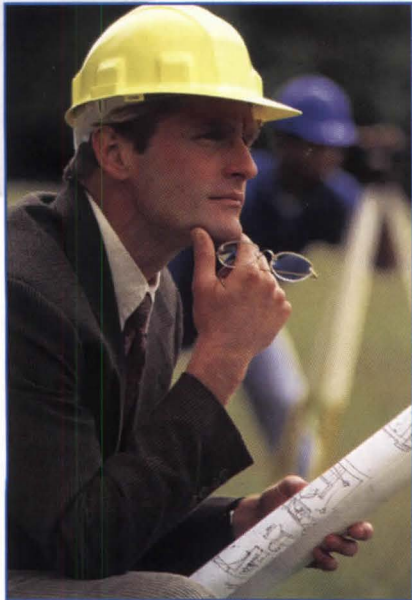
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Photographs (left to right): Tom Arban; Nic Lehoux Architectural Photography; Matthew Millman Photography

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EXHIBITION

Out of the Box: Design Innovations in Manufactured Housing | The Field Museum, Chicago | Through January 16, 2006

With drawings and models of eight hypothetical prefab houses commissioned from innovative architects across the country, the demurely scaled installation of *Out of the Box: Design Innovations in Manufactured Housing* belies its large ambitions. Unlike the high-style modular homes that abound on glossy magazine pages these days, the designs in this exhibition take the promise of affordability as their foundation.

The "Packed House" by David Khouri arrives inside a container, which is then reassembled to form a carport and walled-in yard. With "Minimax" by studioSUMO, the container is the house and the entire unit can be carried to its site on a flatbed truck. Others deal with the imagery of domesticity more directly, as in "house nine" by Parallel Design (below, right), which domesticates a sleek modern exterior with a pop-up roof, and Design Corps's "Double High House" (below, left).

The image of domesticity is not unimportant and these designers deserve praise for addressing it; since the infamous St. Louis housing project Pruitt-Igoe was razed in 1972, sociologists have told us that poor people do not want their homes to look different from anyone else's. It is a shame that these dignified explorations of a humble subject are virtually hidden in an obscure corner of the Field Museum. With luck, some other institution will take it and put it up where it has a prayer of being seen. **Cheryl Kent**

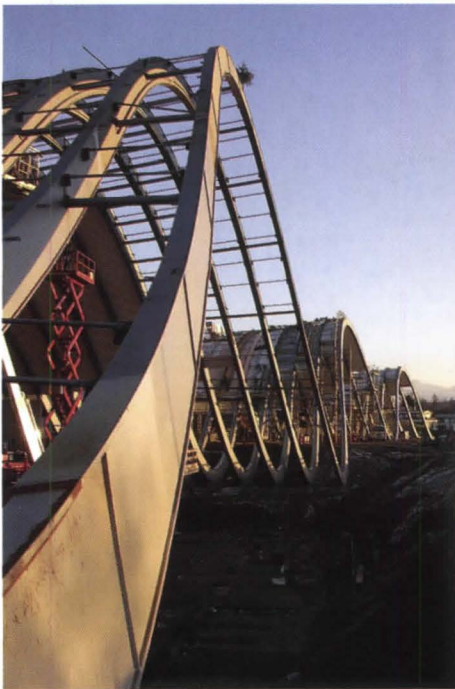


EXHIBITION

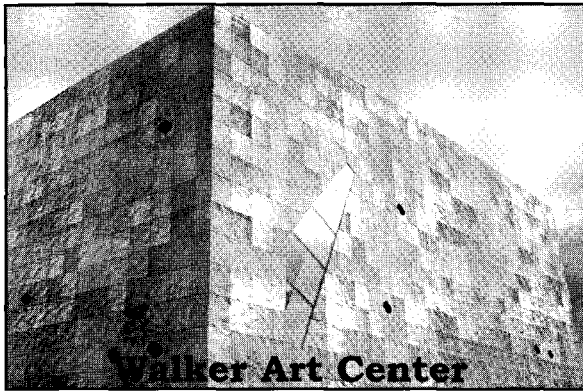
Transforming LACMA and On Tour with Renzo Piano & Building Workshop: Selected Projects | Los Angeles County Museum of Art | Through October 2, 2005

In a salute to the architect of its current renovation and expansion, the Los Angeles County Museum of Art (LACMA) has mounted two shows on Renzo Piano—who, by the client's decision, deposed competition-winning designer Rem Koolhaas. *Transforming LACMA* is intended to run concurrently with the actual construction, allowing museumgoers a glimpse of the museum's future—a future much less challenging than Koolhaas's vast monolithic structure with its overarching translucent roof.

On Tour with Renzo Piano & Building Workshop: Selected Projects, organized by Piano's office, offers visitors an opportunity to step into the architect's atelier by literally recreating it within the museum. A playful arrangement of models, mock-ups, and images are hung mobile-style from above—a situation that, while visually dynamic, allows very little consideration of the pieces themselves. Below, drawings, models, sketches, photographic documents, and slides of such projects as Zentrum Paul Klee (left) and the Agnelli Art Gallery (below) are arrayed on long tables. One would hope that a show of this nature would provide an outsider with a peek into Piano's charrette process or at the least an explanation of his design methodology. Instead, there is an overwhelming amount of information with little in the way of guidance. Piano refers to the exhibition as "a sort of traveling circus"; with such wonderful "acts" it's a shame there was no ringmaster. **Julianna Morais**

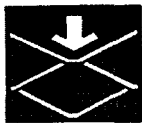


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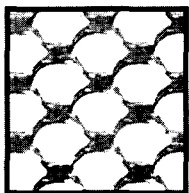
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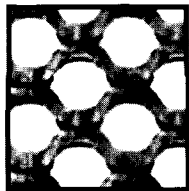
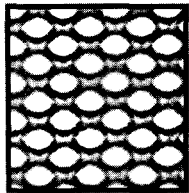


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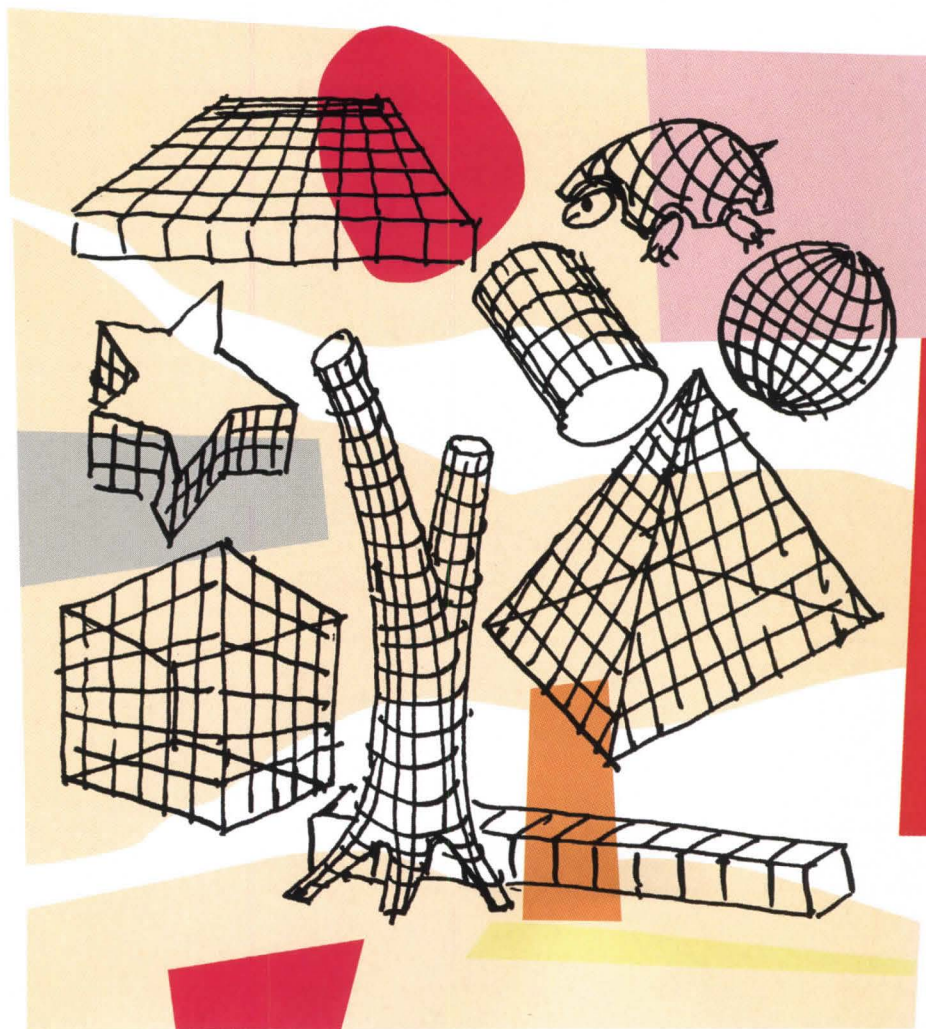
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EXHIBITIONS

COLUMBUS, OHIO

Vanishing Point

This exhibition details the atmospheric qualities of overlooked public spaces.

WEXNER CENTER GALLERIES
wexarts.org

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PHILADELPHIA

Pandemonium

An installation by Janet Cardiff and George Bures Miller sets this foreboding space to music.

EASTERN STATE PENITENTIARY
easternstate.org

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SAN FRANCISCO

Taking Place

A selection of 285 architectural photographs from the Sack Photographic Trust spans more than a century.

SAN FRANCISCO MUSEUM OF MODERN ART
sfmoma.org

Through September 6



EVENTS

CAMBRIDGE, MASSACHUSETTS

Owning the Future: Urban Developments

Conference on current trends and concerns in the urban residential market.

HARVARD DESIGN SCHOOL
gsd.harvard.edu

July 25-26

NEW YORK CITY

Designing for Health

The first of *Architecture's* healthcare conference series, featuring healthcare leaders and industry experts.

MARRIOTT MARQUIS
architecturemag.com

September 21

COMPETITIONS

Home of the Year Awards

Architecture's annual juried program for residential projects (see entry form on page 99).

architecturemag.com
Submission deadline:
July 25

53rd Annual P/A Awards

Architecture's annual awards program for unbuilt projects (see pages 8-9 for entry form).

architecturemag.com
Submission deadline:
August 26



P/A
AWARDS

Young Architects Award

The AIA award honoring design excellence and significant professional contributions.

aia.org
Submission deadline:
October 14

CONTINUED FROM PAGE 22 as Clarendon, a part of Arlington, Virginia. A number of the projects, like the Willow Springs development outside of Chicago, stand on former industrial sites. Still other communities—the town of Valencia north of Los Angeles among them—have been planned where, only a short time ago, cattle or sheep ranged.

However, the most promising—and environmentally respectful—sites are places like Fullerton or the Chicago suburb of Naperville, where the once-overlooked central districts of small towns have been revived. “All these villages are looking at their downtowns to create an identity and get away from the cookie-cutter look,” Chicago-area developer David Fanagel says of these renewed communities. “They are trying to create a little piece of Chicago’s northside.”

He calls Naperville, a vibrant community of 138,000 some 30 miles southwest of Chicago, “a slam dunk” for suburban-village development because of its surviving cluster of historic buildings and surrounding expanse of single-family homes. Largely populated by white-collar families, the city has worked assiduously to develop its old downtown, adding new apartments and stores and creating an attractive esplanade called Riverwalk along the winding west branch of the DuPage River adjacent to its center. “Our downtown is what keeps us together,” observes Christine Jeffries, president of the Naperville Development Partnership. “All of us feel we are at home here. It gives us an identity.”

DEPOLITICIZING THE VILLAGE

With the demographic wind at their backs, suburban villages—whether in the inner ring or outer periphery—appear to have a bright future. Yet, they still face political challenges as fear of the negative aspects of urbanization makes some suburbanites leery of denser development. Perceptive advocates of new suburbanism, like Anaheim, California, mayor Curt Pringle, make it clear to skeptics that density need not come at the expense of existing single-family zones.

There are other, more market-based challenges as well. Fanagel notes that the housing side of his Willow Springs community has been far more successful than the related commercial space. “In the end you still have to figure out how to give the users the amenities they want,” he explains. “You have to have the right commercial to go with the residential.”

Yet none of these challenges, economic or political, are likely to slow the evolution of new suburbanism. What is needed now is the political will—and the buy-in by the planning and architectural communities—to capture this wave of the American future, perhaps the greatest commercial opportunity of the next half-century.

Joel Kotkin is a fellow with the New America Foundation and author of *The City: A Global History*, just published by Modern Library. He also serves as a senior advisor to The Planning Center.

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3. Of the companies you've selected, indicate your choices for Most Innovative, Most Respected, and Most Specified.
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Select the manufacturers who have provided you and your projects with:

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METHODOLOGY

The ACE ballot and manufacturers list runs in the April, May and June issues of *Architecture*, each reaching the complete 88,000+ nationwide circulation. In addition, e-mail campaigns are conducted to ensure the broadest base of response. Ballots are provided and collected at Lightfair and other industry conferences. *Architecture* also does random sampling, consults with industry experts, and the list of nominated manufacturers is subject to review by an in-house publishing team.

Results will be announced in the December 2005 issue.

Your votes must be received by July 8, 2005

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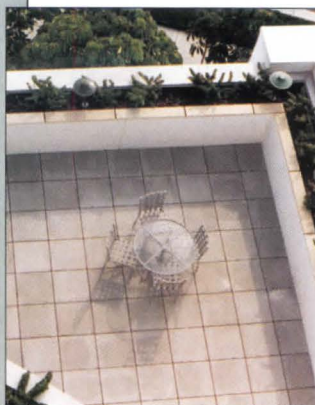
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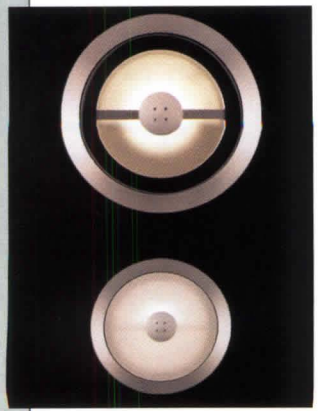
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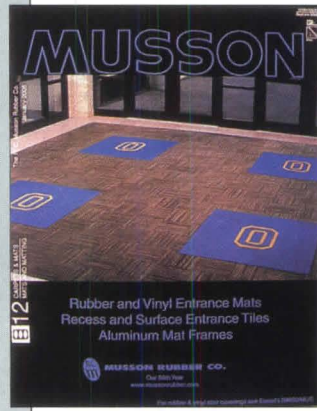
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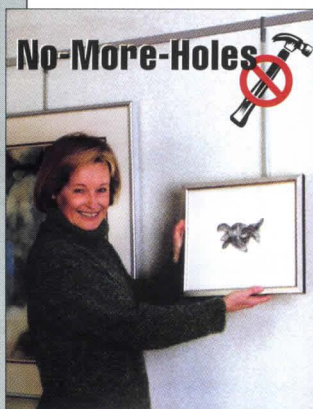
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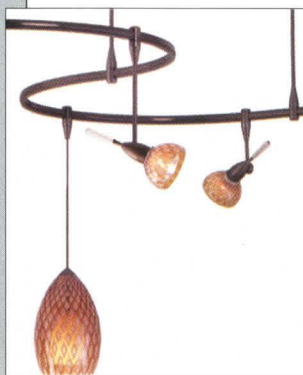


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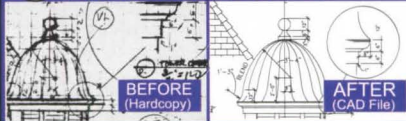
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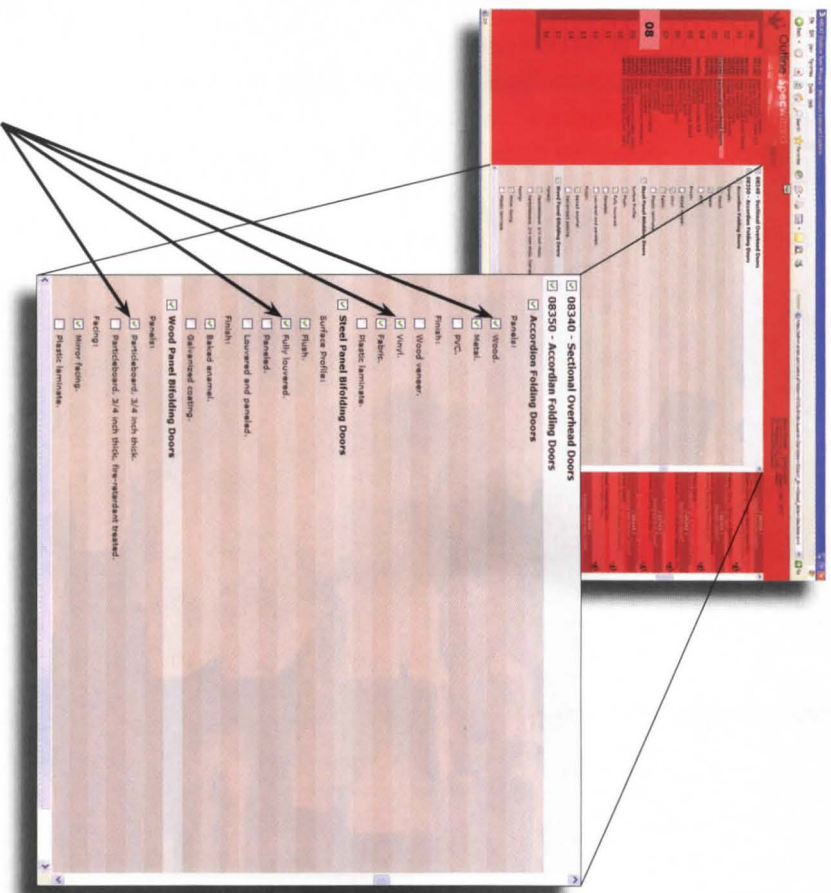
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THE TYRANNY OF THE (URBAN) MAJORITY

BY RICHARD H. CARSON

I recently attended a public meeting where an elected official asked a group of planners the rhetorical question, “What is sprawl?” One planner’s response was that sprawl occurred when the rural area was divided into large-acreage lots in order to build “McMansions.” The official’s response was, “Would you be happier if people located low-income trailers there instead?”

This dialogue troubled me. For the advocates of recent planning trends—such as smart growth and New Urbanism—to attract financial supporters and sympathetic voters, they use pejorative labels like sprawl, big-box, and McMansion. In order to demonize sprawl you need a demon. Rural farmers and foresters can’t be vilified because planners are supposedly conserving resource lands for their use. And it’s politically incorrect to malign lower-income families living in trailers. So who do special-interest groups scapegoat? Rich people and McDonald’s are easy targets—thus: Rich people + McDonald’s = McMansion.

This Orwellian doublespeak has been used by proponents to subliminally sell a political agenda that attacks a longstanding American institution: the land-settlement patterns of a culture dominated by automobiles and low-cost postwar subdivision housing. Their social agenda exploits fear and classism to advance their cause—at the expense of someone else’s socioeconomic beliefs and well-being.

SCHIZOPHRENIC PREJUDICE

In America, terms like sprawl and McMansion resonate with us at least in part because of our schizophrenic personal prejudices: We want to be rich but can’t be because we can’t stop buying stuff; we smoke and drink and eat junk food, but we know it’s bad for us. We feel guilty about our shameless, obsessive consumerism. We feel helpless and used by the fat cats on Wall Street and Madison Avenue. And we feel like we’ve sold our souls (and our freedom) to the highest bidder.

Conversely, we suspect that there are people who have not

sold their souls, and that bothers us, too. Among them are independent farmers and foresters who are living off the land. And city-dwellers subconsciously resent their apparent freedom.

In fact, this lack of empathy has led to a new “tyranny of the majority” by nonrural interests. And our constitutional checks and balances have failed to protect the rural landowner. Initiatives related to smart growth have drawn urban-growth boundaries and then downzoned rural properties. These measures are meant to contain sprawl, we’ve been told, but they also help create urban “reservations” that keep dense populations from destroying the natural environment.

GLUTTONY AND REPARATIONS

When urbanites—no, *urbanists*—clash with rural landowners, the outcome is always the same: The country folks lose. Back at home, the urbanists want their espresso bars, boutiques, and drive-throughs, but they want rural areas to remain a pastoral land museum, preserved for their visits by SUV.

The fact is that urbanists are implicated in the killing of many more species than their rural counterparts through their gluttony. Since 80 percent of Americans live in metropolitan areas, aren’t they at least 80 percent guilty? Shouldn’t urbanists make this economic injustice right, and pay for it in dollars? Yes, because others—specifically, rural landowners, developers, and big businesses—must pay for their unconscionable urban appetites.

If we truly are seeking to improve livability for both humanity and animals, then let us do so by being intellectually honest about the social costs to all citizens—not by using some biased, urbanist propaganda against a minority of our citizens. It’s time for the urban majority to pay its fair share—or at least talk about how to make economic reparations to rural America.

Richard Carson, a land-use planner and journalist, lives near Portland, Oregon, on 21 acres in a “forest” zoning district.

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