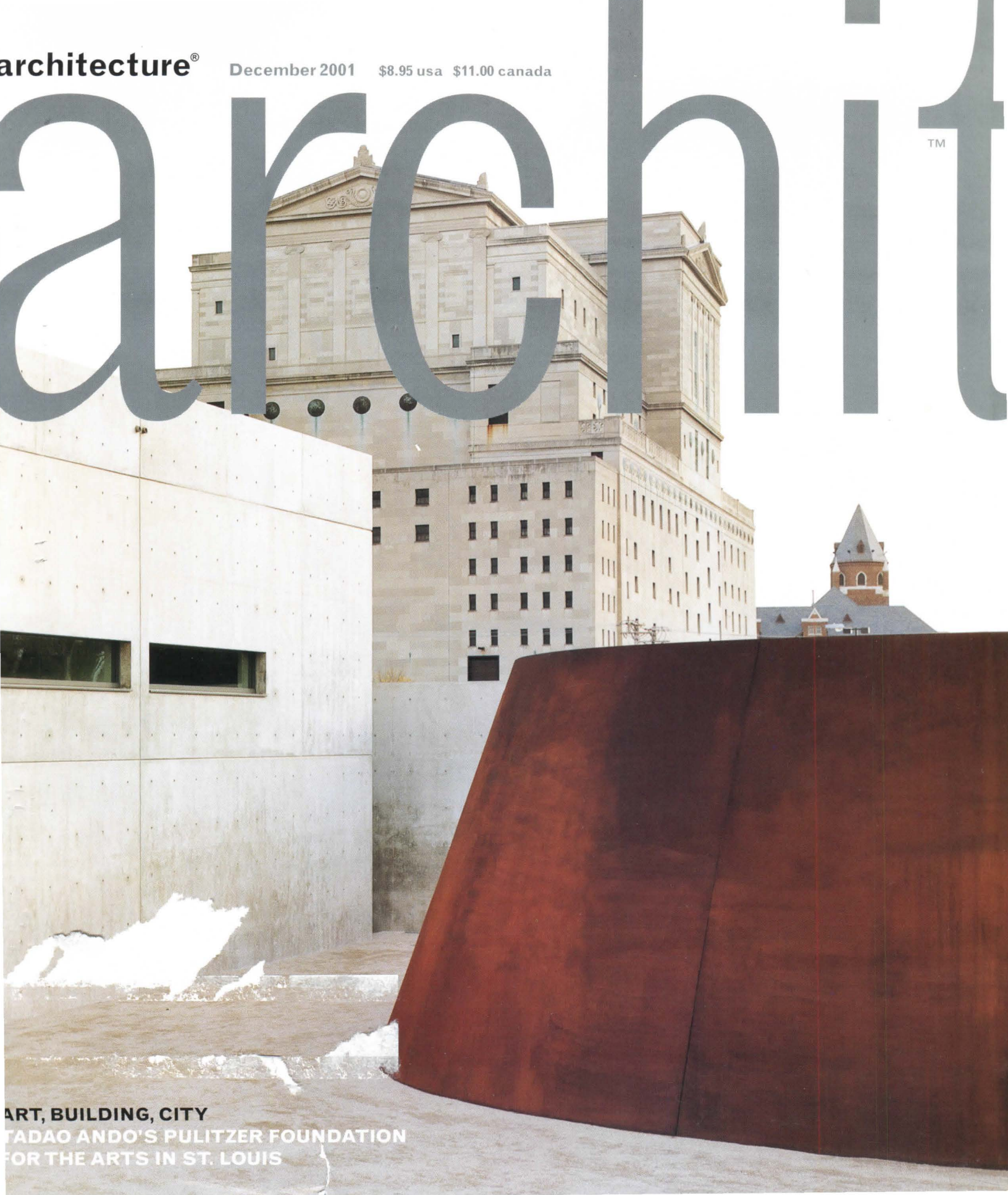


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Bringing Architects in From the Cold

By Reed Kroloff

It's been a great run. Nine straight years of economic expansion has brought American architects more work, more influence, and more confidence than they have enjoyed for decades. September 11 didn't end all that. Indeed, it focused public attention on architecture like nothing else could have (November 2001, page 15). Nevertheless, the nation's (and the world's) psychological climate changed in the Trade Center tragedy, threatening the profession's continued ascendancy.

The slowdown actually began before September 11. With the U.S. economy growing at an anemic 2 percent rate since fall 2000, the American Institute of Architects' chief economist Kermit Baker—one of the AIA's truly great assets—suggests that astute architects were already watching the clouds gather: "Business conditions had softened at many firms during the first eight months of the year," Baker writes in the recently released "AIA 2001 Component Survey of Business Conditions." There were also anecdotal reports of layoffs at big firms in Los Angeles, New York, and Washington, D.C. Yet surprisingly, Baker's study suggests that business inquiries faltered only slightly after September 11. It was the first slip in years, but hardly indicative of a crisis. Still, the steady drumbeat of sour economic news has people jittery: More than half the firms surveyed felt business would continue to tighten in the fourth quarter, and September marked the sixth consecutive month that billings fell nationwide.

In short, architects are beginning to feel the recession, and nearly every indicator suggests the worst is yet to come. The questions on everyone's mind: How bad will it be, and how long will it last? Hard to say, though a fair number of economists are cautiously optimistic that this slowdown will not be

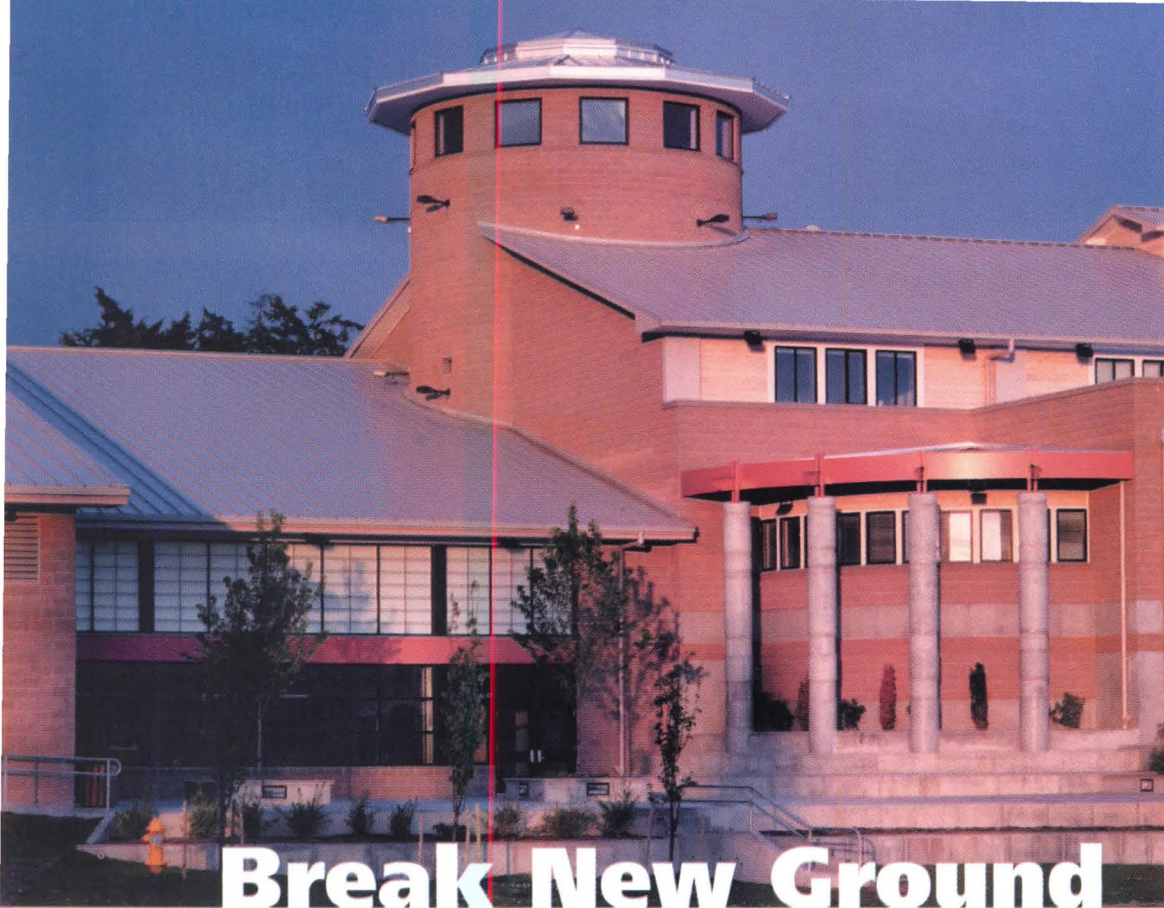
as deep or long as the last one (barring further shocks to the system like September 11). That doesn't mean things are going to be easy, as our annual summary of Construction Market Data's annual North American Construction Forecast (page 38) points out. Certain geographic areas undoubtedly will suffer more than others. And some markets, like commercial and hospitality, are already feeling the sting. Others, however, especially health care and education, are expected to grow.

There's a natural tendency when facing difficulties like these to turn inward, to concentrate on the immediate at the expense of the eventual, to chase this week's available project rather than next year's agreed-upon marketing plan. That's a mistake architects can't afford to make if they are interested in long-term prosperity. Instead, they must be well represented at both the local and national levels as private- and public-sector clients strategize for the future, particularly on hot-button issues like security.

In the private sector, that means architects must continue to diversify their portfolios. One telling statistic from the "AIA Firm Survey 2000–2002," as noted by AIA Resident Fellow Richard Hobbs in a recent article, is that while demand for basic architectural services grew 86 percent from 1990–1999, demand for expanded services skyrocketed, increasing more than 300 percent. In other words, clients are seeking—and are willing to pay for—architects' expertise in areas that stretch traditional definitions of practice.

In the upcoming election year, the composition of city councils, legislatures, and the federal government all face revision. Further, with every level of government challenged for the first time in years by budgetary shortfalls, architects must actively engage the political process to offer leadership—and to protect their interests. Unfortunately, as we detailed last month, the AIA—this profession's strongest, best-organized political voice—is in a weakened financial state. Architects must work quickly to help get the organization back on its feet.

Caught off guard by the last recession, architects suffered staggering financial and emotional losses. This time, there's an opportunity to react to the warning signs. Any successful response will involve a concerted, strategic effort on the part of the entire profession. Without that, it will be a cold, lonely world out there. ■



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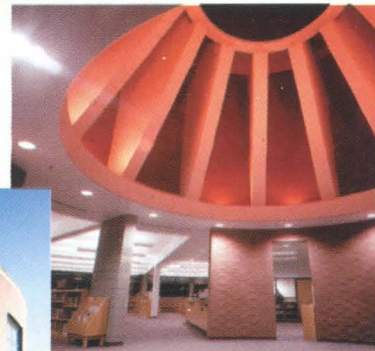
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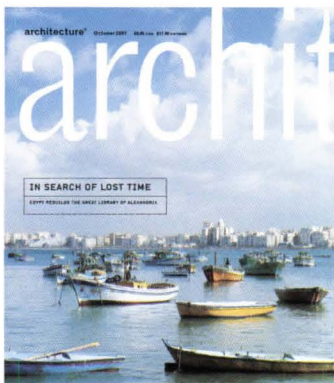
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Reading Room

In the October issue, Richard Barnes's photos, Max Rodenbeck's report, and especially the excerpts from related writings on the idea and memory of Alexandria created an impression on me recalling my 12-day visit to the city in 1985.

When there, I read about the lost library and wondered then if it would ever return. Then when my issue arrived, I read and saw that the library has returned in a new form, stunning and simple in concept. Its elegance and starkness, odd angle and tilt to the sky, all assemble the memorable and literary city of Alexandria, the hinge of history and cultures.

Thank you for the well-composed drawings, photos, texts, the poem, and for my discovery of the writing of André Aciman, whose book now sits next to my Durrell, Cavafy, and Forster.

David McCowen
Atlanta

I'm filled with admiration for your special section on the new Alexandria library. The photography is wonderful and I love the cover, but I'm most pleased by the way you were able to use literary excerpts to give depth and meaning to the coverage. Congratulations.

Robert Wilson
Editor, *Preservation*
Washington, D.C.

All About the AIA

Your recent account of the AIA's failed dot-com venture and the resulting blow to AIA finances is apparently informed by a misperception of what the AIA is (October 2001, page 51). Specifically, you note that this failed venture may portend bankruptcy for the AIA. This is not even remotely likely for many reasons, not the least of which is that the AIA is not simply the Washington, D.C., headquarters on which your report focused.

There is an elegant tradition among the 130 affiliated AIA chapters/branches, of strengthening the national network by continually strengthening each other. Our national branch may be running on low fuel levels for the next year or two, but to confuse a setback such as the dot-com venture with imminent bankruptcy is, in my view, to miss the point that it is precisely the collective financial and intellectual strength of the nationwide network that makes it possible for the Washington office or any AIA local chapter to take the kind of business risks that, successful or not, contribute to the evolving vitality and inform the cumulative operational wisdom of this or any other association.

Richard Fitzgerald
Boston

The irresponsible actions of the AIA have been well documented by the professional journals over the years. This organization has simply become an extremely expensive magazine subscription and nothing more. For many practitioners in small offices, the "AIA" is kept after one's name only because of the great success the organization has had in confusing the public/client base into believing that this designation means "architect," while simultaneously obscuring the roles of state licensing authorities. I believe the best way to strike back at the outrageous pomposity perpetuated by this old men's club is for all architects to boycott continuing education requirements—let

them kick us all out! This would be especially symbolic given the AIA's complete failure to deliver programs in an inexpensive and convenient manner (as they had promised). I for one would not mind putting "FAIA" after my name: Former AIA.

David Echt
via e-mail

Talk about eye opening. For years I've been mildly agitated by the perceived return on my investment in the AIA. I've always thought that the amount paid in annual dues were exorbitant for a magazine subscription, a couple of newsletters and the use of "AIA" at the end of my name on business cards and correspondence. Bradford McKee's account of the recent financial rise and fall of the AIA has turned the "mildly" into "wildly."

I now find myself as a sole-proprietor. Now that I am responsible for paying my own dues, I am forced to re-evaluate the value of my AIA membership... and it doesn't look like much of a bargain.

As more and more small firms spin off from larger firms out of economic necessity, the AIA's biggest problem may not be the obvious financial shortcomings. Discontent will lead to a shrinking membership and a growing inability to restore professional confidence and financial stability to the organization.

G. Matthew Butler
Cumming, Georgia

CORRECTIONS

The excerpt for False Papers, by André Aciman, on page 89 of the October 2001 issue, was reprinted by permission of Farrar, Straus and Giroux, LLC.

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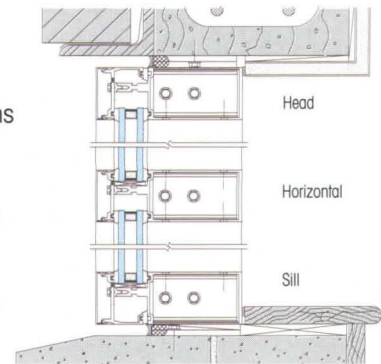
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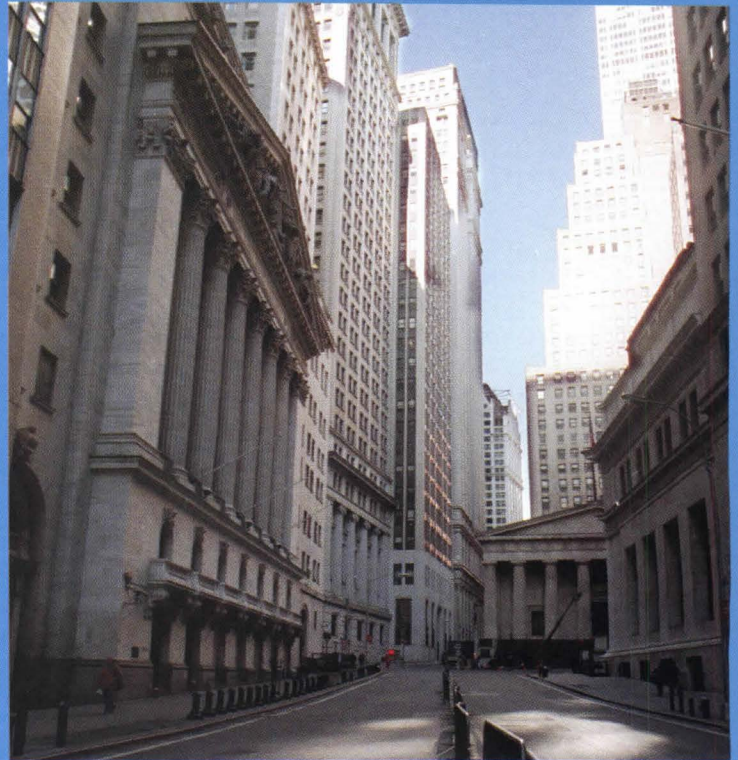


WINDOWS
CURTAIN WALLS
ENTRANCES
STOREFRONTS

Schools NAAB Six-Year Term
page 20

➤ **Architects Liable to Pay More
in 2002**
page 21

Don't Mess With Texas Architects
page 21



100 Most Endangered, +1

Preservation Last month, the World Monuments Fund, the New York-based nonprofit organization devoted to protecting architectural heritage, released its biennial Watch List of 100 Most Endangered Sites. The list, intended to raise awareness about built works under threat, now has a last minute addition: Historic Lower Manhattan. The district, whose built fabric has been left at risk by the September 11 tragedy, was designated the 101st site.

Area buildings such as Trinity Church (Richard Upjohn, 1846), Federal Hall National Memorial (Town & Davis, 1842), and St. Paul's Chapel (Thomas McBean, 1766; tower and steeple, James Crommelin Lawrence, 1796), suffered damage to their exteriors and mechanical systems from the dust and debris. Estimates of the cleaning cost of just the organ in Trinity Church approach \$1 million.

Icons of New York's early 20th-century skyscraper history have been compromised as well. Cass Gilbert's 1907 French Gothic landmark, 90 West Street—just opposite the World Trade Center's North Tower—sustained considerable damage. Another building at risk is McKenzie, Voorhees & Gmelin's 1926 art deco Barclay-Vesey tower. The façade has

Three centuries of architecture in Manhattan's Financial District were damaged on September 11; above, a view north on Broad Street toward Federal Hall.

Buzz

Nicholas Olsberg has been named the new director of the **Canadian Centre for Architecture**. Olsberg, who has served as interim director since June of this year, replaces Kurt Forster, who resigned in March.

The team of **Snohetta** and **Spence Associates** has been chosen to design a new \$10 million arts center in Margate, England. The Turner Centre is set for completion in 2004.

Jean Nouvel has been named as one of five people to receive the **2001 Praemium Imperiale International Arts Award**. The award, given by the Japan Art Association for lifetime achievement in painting, sculpture, architecture, music, and theater and film, bestows \$125,000 to each winner.

Rem Koolhaas/OMA's proposed (and controversial) San Francisco Prada store is no more. Citing financial difficulties, Prada Group NV has decided to can the project, nicknamed the "cheese grater" by those who disapproved of its perforated steel skin. On a brighter note, Rem has won a five-year-long plagiarism lawsuit. Former OMA employee Gareth Pearce sued the architect and his office, claiming they copied the scheme for the Kunsthall in Rotterdam from Pearce's 1986 thesis project for the Architectural Association. Pearce, who has also taken legal action against Kunsthall engineer **Ove Arup** and the city of Rotterdam, lost the case when a judge in the London High Court threw it out, calling Pearce's claim "pure fantasy."

A bridge designed—but never built—by **Leonardo da Vinci** has opened

been punctured by debris, and most windows are gone. Lobby murals and mosaics need restoration.

With the National Trust for Historic Preservation, the Preservation League of New York State, the Municipal Art Society, and the New York Landmarks Conservancy, the WMF is also cosponsoring the Lower Manhattan Emergency Preservation Fund. Each organization has given \$10,000 to the fund and will contribute staff aid to the rebuilding effort.

The rest of the 2002 list includes the usual worldwide range of sites, from ancient urban excavations to modern monuments. Some sites, like the Uch Monument Complex in Punjab Province, Pakistan, and Alvar Aalto's Viipuri library, in Vyborg, Russia, also appeared on the WMF's 2000 list, and are still endangered. Others, like the Palaikastro Archaeological Site in Crete, Greece, and R.M. Schindler's Kings Road House (top) in West Hollywood, California, are newly at risk. One building has already benefited from designation: Edward Durell Stone's A. Conger Goodyear House in Old Westbury, New York, completed in 1938, was saved from demolition by a buyer who learned of the threat to the house.

With such an expansive roster, one theme does resound: 20th-century architecture. "Modern architecture figures very prominently," says Bonnie Burnham, the fund's president. "That helps underscore the idea that we have to start thinking about preserving buildings that were created in our own lifetimes." *Bay Brown*



R. M. Schindler's Kings Road House and Studio (top), completed in 1922, suffers from water damage, a leaking roof, and failure of some structural elements; increased tourism and development surrounding the Great Wall of China (above) threaten its fragile landscape.

Schools NAAB Six-Year Term

Education The National Architectural Accrediting Board recently decided to extend the length of the accreditation cycle of professional architecture degree programs nationwide to every six years rather than every five years, starting with the board's visits scheduled for 2001. The NAAB's directors also elected to begin "focused" visits between full accreditation intervals to schools in which deficiencies warrant a follow-up inspection.

The decision emerged following an October 2000 meeting of the five collateral groups governing the architectural profession: the NAAB plus the American Institute of Architects, the American Institute of Architecture Students, the Association of Collegiate Schools of Architecture, and the National Council of Architectural Registration Boards. "All five groups were in support of these moves," says NAAB President Kenneth Schwartz, an associate professor of architecture at the University of Virginia. "We recognized that we could extend the accreditation term, which has the obvious benefit of lessening the burden for schools."

The plan for "focused" interim visits will bring NAAB accreditors back to a school three years after accreditation if their report at term cites issues the school needs to resolve. The interim visits will address targeted problems rather than force the schools to jump through all the hoops of accreditation again. "If you go back at three years and have the school do everything again," adds Schwartz, "you may not be focusing on the specific issue that needs attention at the time." *Bradford A. McKee*

Insurance

Architects Liable to Pay More in 2002

Architects will probably find their professional liability insurance premiums climbing a bit next year. September 11 is partly to blame, but rates were poised to rise anyway, risk-management specialists say.

Typical professional liability coverage costs had been dropping for several years, says Larry Moonan, chief underwriting officer of DPIC Companies, a Monterey, California-based liability insurance carrier. Rates largely bottomed out in early 2000 and began rising again because the higher volume of the latest building boom brought a corresponding increase in claims. "The combination of lower rates [pre-2000] and increased claims led to significant underwriting losses for most, if not all, carriers," Moonan explains. And "rates are definitely increasing

as a result of the events of September 11," he adds.

After the attacks, "a lot of capacity in the market dried up," says Lorna Parsons, construction industry group manager of insurer Victor O. Schinnerer & Company, in Chevy Chase, Maryland. "As people compete for that capacity, prices go up."

Parsons expects premium increases of at least 10 to 15 percent over the next year. Moonan cites industry projections of 25 to 75 percent increases, though firms with solid performance will probably see only marginal premium hikes. Some coverage will be harder to obtain, both Moonan and Parsons note: Reinsurers are more likely to exclude or limit terrorism-related claims, and project-specific coverage will become harder to buy. *B.A.M.*

Don't Mess With Texas Architects

Intellectual Property Austin-based Kipp-Flores Architects has been awarded \$5.2 million in a copyright infringement case involving the use of their design plans in Virginia Beach and Suffolk, Virginia. Signature Homes and Residential Concepts, both of Virginia Beach, were ordered in August to pay the profit on 304 homes they'd built since 1995 to the 30-person Texas firm when a court ruled the contractor had secured only one-time usage rights for the designs.

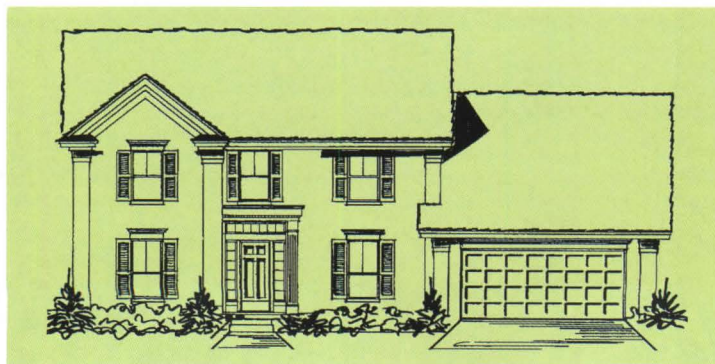
As with works of art or writing, copyright of architectural plans reside with the creator unless other specific arrangements are made. Because Kipp-Flores specializes in licensing its residential and multifamily housing plans, explains partner Sabas Flores, "we automatically register them in Washington," further establishing their ownership of the documents. The defendants, though,

attempted to copyright Kipp-Flores's designs in their own name. Adding insult to injury, claims Flores, the builders had filed suits against other builders that had also appropriated the designs. "We got ripped off twice," laments Flores.

The contractors have their side of the story. "It was our contention that they hadn't put any limits on use [of the plans]," explains Allan S. Reynolds Jr., one of the lawyers

for the builders. Reynolds claims that Kipp-Flores was well aware of the nature of the builder's business—constructing multiple residences based on a single design—and had even visited some of the older developments themselves. Reynolds plans to appeal the case.

Some 50 to 75 homes based on the disputed designs are still under construction, and their fate is yet unknown. *Jamie Reynolds*



Plan #2507 was the most frequently copied of Kipp-Flores's designs.

almost 500 years later in Ås, Norway. Norwegian artist Veboern Sand built a full-scale but shorter wooden pedestrian bridge based da Vinci's 1502 design, which was originally intended to span the Golden Horn inlet in Istanbul.

Eeny, Meany, Miney, Moe: The selection committee at the **Los Angeles County Museum of Art** has finally made up its mind...that it is as yet undecided on an architect for the museum campus design, naming **Jean Nouvel** or **Rem Koolhaas**. Stay tuned for the next announcement.

Professors beware:

ArchitecturePapers.com sells papers on—you guessed it—architectural history, theory, and criticism. There's a title for everyone, from the succinctly named "Design" to the quirky "Cob Construction: An Ancient Form of Housing" to the high-minded "Dance and Architecture: Spatiality and Orientation." A bargain at only \$9.85 per page.

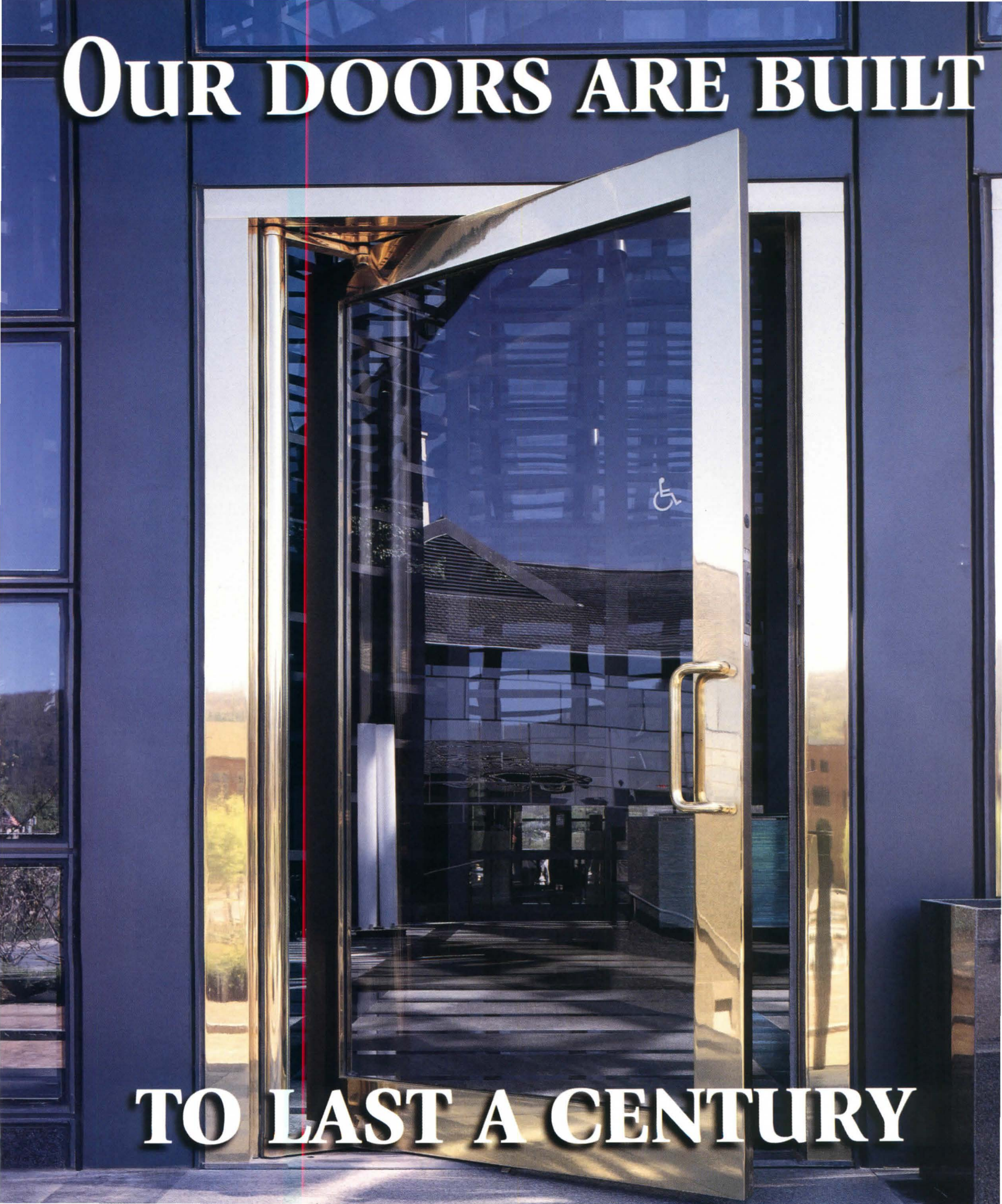
According to the **New Urban News**, construction of "neighborhood-scale" projects rose by 37 percent in 2001, a significant jump from last year's increase of 25 percent.

The **Vietnam Veterans Memorial Fund** has proposed an 8,000-square-foot visitor center to be sited west of **Maya Lin's** wall—and underground. The design change is in response to objections by the Park Service that the previously planned aboveground building would mar the views on the Mall.

Harlan McClure, the founding dean of the College of Architecture at Clemson University, died on November 1 at the age of 85.

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Evolving at the Lowe Art Museum
through January 27, 2002
(305) 284-3535

Chicago
Out of Place: Contemporary Art
and the Architectural Uncanny at
the Museum of Contemporary Art
Chicago opens January 12, 2002
(312) 280-2660

Cleveland
The Stamp of Impulse: Abstract
Expressionist Prints at the
Cleveland Museum of Art through
January 27, 2002 (216) 421-7350

Denver
Motion Pictures: Muybridge and
Edgerton Photographs from the
Collection at the Denver Art
Museum through April 14, 2002
(303) 640-4433

Montreal
Floor Play: An Installation by
MEDIUM at the Canadian Centre for
Architecture through March 3, 2002
(514) 939-7026

New Haven, Connecticut
Holland of the Imagination:
Dutch Prints of the Sixteenth and
Seventeenth Centuries at the
Yale University Art Gallery through
February 3, 2002 (203) 432-0600

New York City
Projects 74: Riccio Albenda at the
Museum of Modern Art through
January 22, 2002 (212) 708-9400

Brazil: Body and Soul at the
Solomon R. Guggenheim Museum
through January 27, 2002
(212) 423-3500

Omaha
Painters and the American West
at the Joslyn Art Museum through
January 20, 2002 (402) 342-3300

Santa Fe, New Mexico
Views of the City: 1910s–1940s
at the Georgia O'Keeffe Museum
through March 14, 2001
(505) 995-0785

San Francisco
Organic/Inorganic: Selections
from the Permanent Collection of
Architecture and Design at the San
Francisco Museum of Art through
February 5, 2002 (415) 357-4000

Washington
Twin Towers Remembered at the
National Building Museum through
March 10, 2002 (202) 272-2448

Skyscrapers: The New Millennium
at the Octagon Museum through
April 28, 2002 (202) 638-3221

Weil am Rhein, Germany
Isamu Noguchi—Sculptural Design
at the Vitra Design Museum opens
December 8 (49) 7621-702-3351

Conferences

**World of Concrete/World of
Masonry** at the Morial Convention
Center, New Orleans, January 9–12,
2002 www.worldofconcrete.com (800)
837-0870 ext. 2653

Restoration & Renovation 2002
at the Hynes Convention Center,
Boston, March 20–23, 2002
www.restorationandrenovation.com

**4th Annual National Green
Building Conference** at the Westin
Hotel, Seattle, March 24–26, 2002
www.nahbrc.org (800) 638-8556

Competitions

The Society for Environmental
Graphic Design is calling for submis-
sions for its **2002 Design Awards
Program**. Entry deadline is January
31, 2002 www.sedg.com

The Van Alen Institute has issued
a call for images of urban recon-
struction projects for an upcoming
photographic exhibition, **Renewing
Rebuilding Remembering**
www.vanalen.org



From the Enlightenment on, inventors have fashioned machines to imitate human perception of time, motion, and three-dimensional space. **Devices of Wonder: From the World in a Box to Images on a Screen** is comprised of hundreds of such objects. Curiosity cabinets, early cameras, and a clarinet-playing, life-size android made in 1838 appear alongside works by contemporary artists, including James Turrell, Jeff Wall, and Lucas Samaras (his 1966 installation, *Mirrored Room*, pictured above). The exhibit, organized by the Getty Research Institute, is on view at the Getty Center through February 3, 2002. For more information call (310) 440-7360.

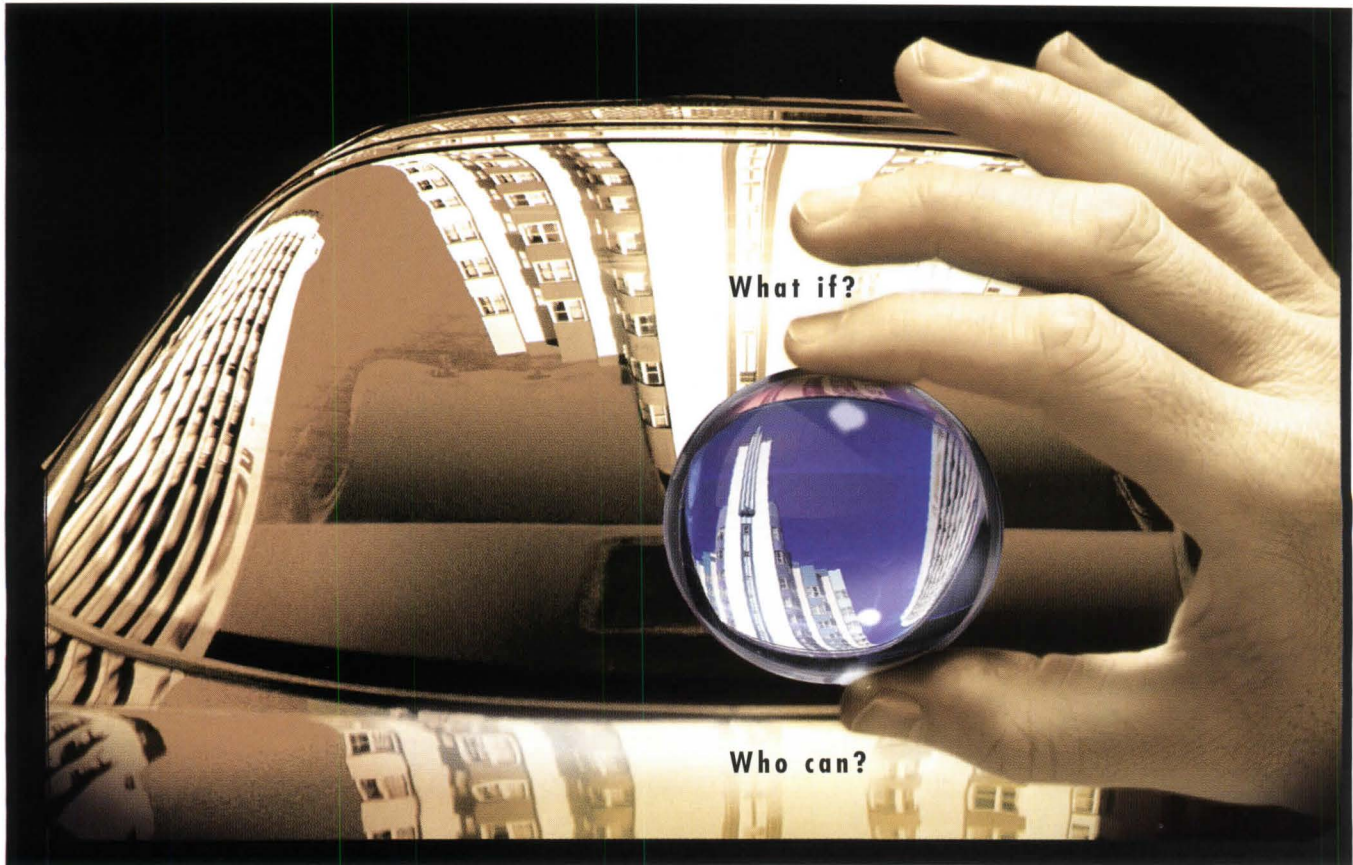
The Bloomington, Indiana, **Percent for the Arts** program invites design submissions for public bus shelters on a gateway thoroughfare into the city. Entry deadline February 15, 2002. BloomingtonArt@aol.com

The Rotch Travelling Scholarship awards \$35,000 for eight months of travel to the first-prize winner of the two-stage design competition. Application materials must be requested in writing before January 1, 2002 www.rotchscholarship.org

The Architectural League of New York is seeking entries for its **2001–2002 Young Architects Competition**; this year's theme is 'Material Process.' Submission deadline is February 20, 2002. For entry form, call (212) 753-1722 or go to www.archleague.org

Pamphlet Architecture is sponsoring a juried competition; the winning project will be published as a volume in the *Pamphlet Architecture* series. Preliminary submission deadline is January 15, 2002 www.papress.com/pamphlet

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the possibilities of glass:



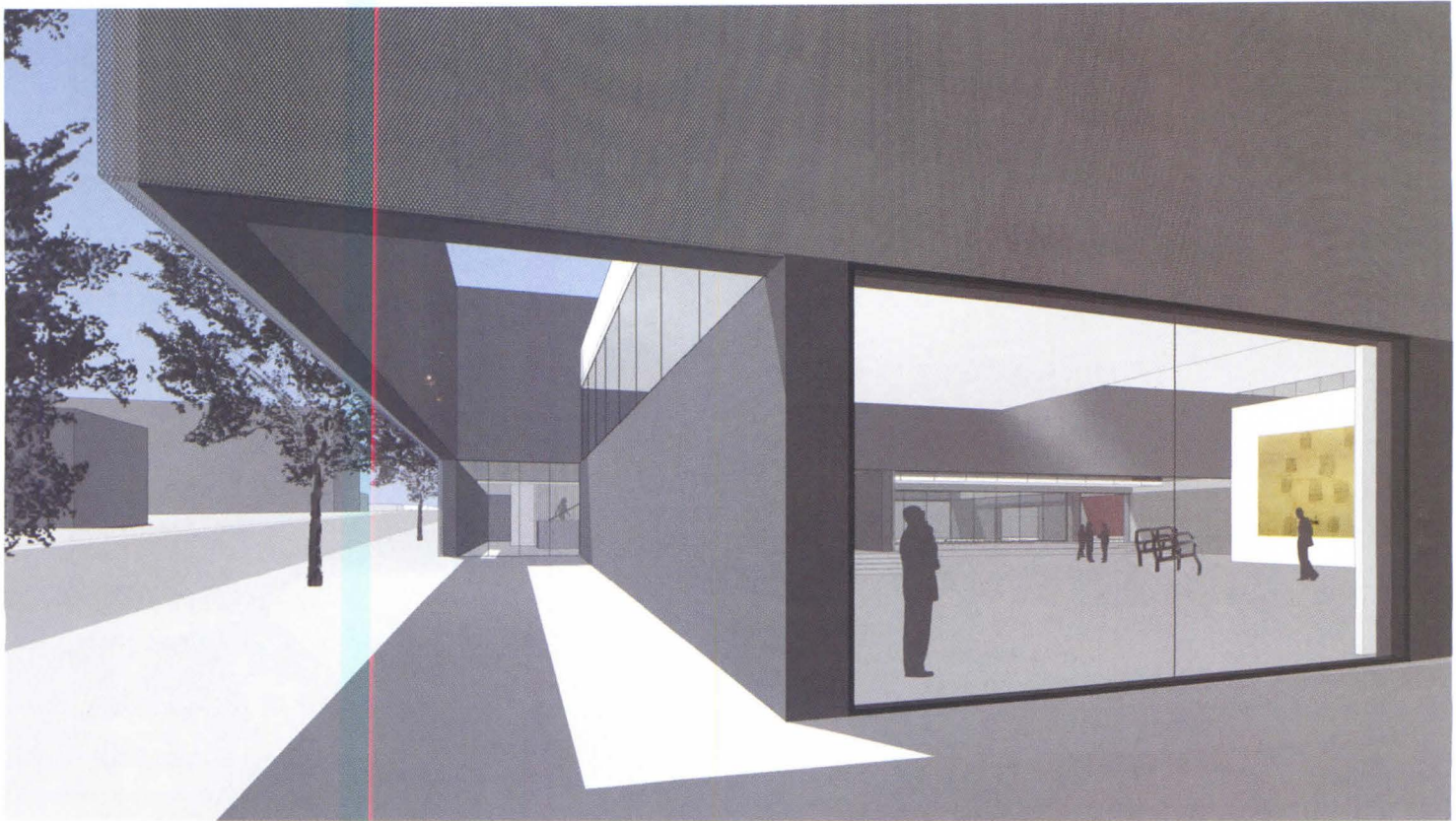
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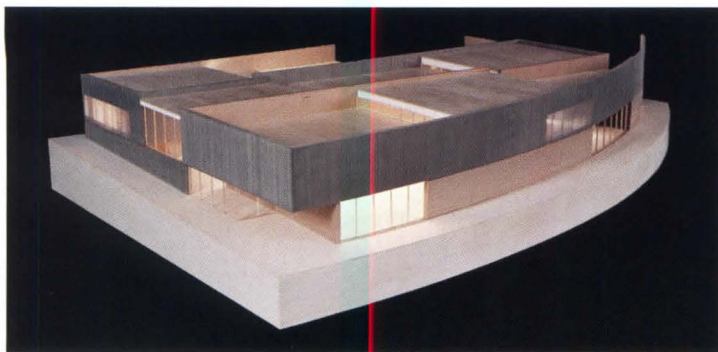
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View of main entry and exhibition space

On the Boards

Allied Works Architecture, Forum for Contemporary Art, St. Louis

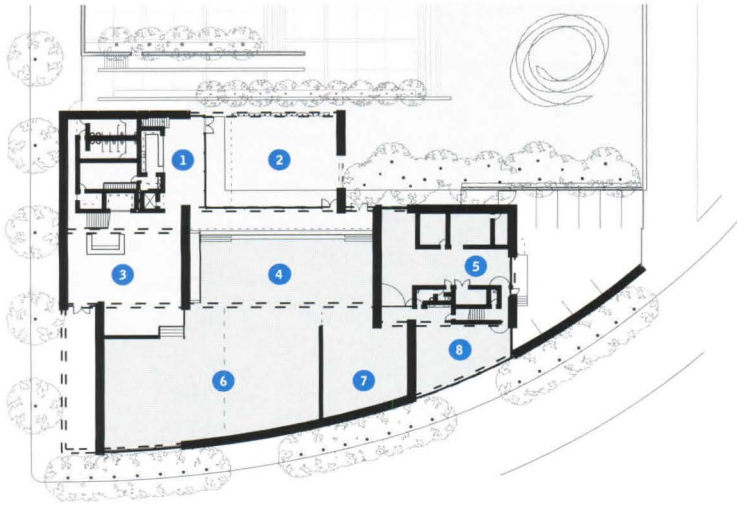


View looking southeast

St. Louis's hopeful designation of a dingy set of blocks downtown as the Grand Street Arts District is starting to seem more convincing. Tadao Ando's Pulitzer Foundation for the Arts has just opened (page 84), and in the fall of 2002, it will be joined by Allied Works' Forum for Contemporary Art just next door. Though the two institutions will share a courtyard, and the FCA sits on land donated by Emily Rauh Pulitzer, they could not be more different programmatically and in the attitude of their respective buildings to the neighborhood. Ando's design for the Pulitzer Foundation sits in monastic and exquisite reserve from the street, while at the FCA, a noncollecting museum with a heavy emphasis on education and outreach, Allied Works' Brad Cloepfil speaks of trying to "make a fusion of the city and the art."

To do this, Cloepfil brings the walls right out to the street edge, and punches large glass windows through them. While the structure is poured-in-place concrete, exterior walls are clad in a metal mesh that sometimes continues into the interior as well, to increase the sense that the FCA has taken the city inside it. (In gallery spaces where art will be hung, walls are clad in a more forgiving plywood.)

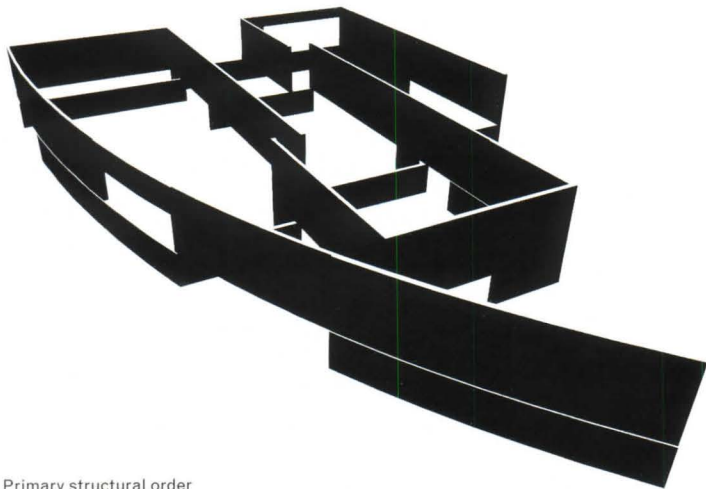
The way Cloepfil deals with walls is actually the key to the building. There are two orders of walls, one for the ground floor and one for the



Ground-level plan 131' <



Upper level

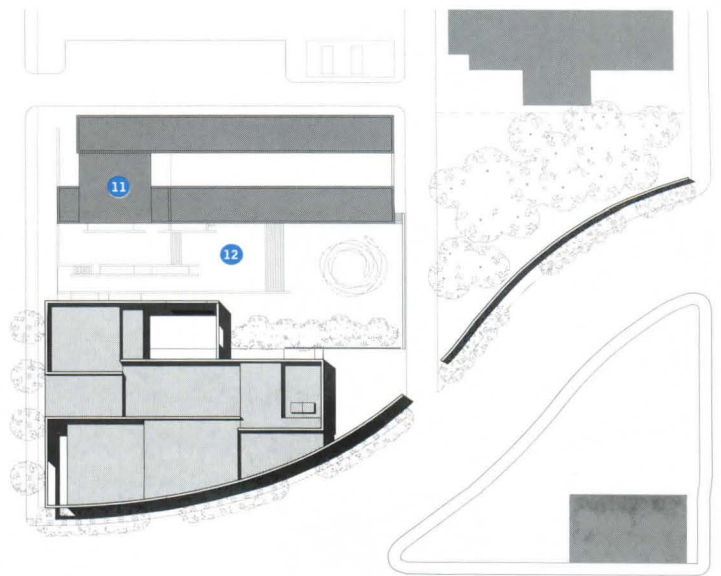


Primary structural order

- 1 café
- 2 courtyard
- 3 lobby
- 4 performance space
- 5 loading area
- 6 exhibition space
- 7 video room
- 8 classroom
- 9 offices
- 10 tech lab
- 11 Pulitzer Foundation
- 12 shared courtyard

upper floor, and the intersections of the two give the building its internal logic. Those of the lower, 12-foot-high order are like locks in a dam: The often freestanding pieces make divisions between galleries and define the route that visitors will travel through the building. The upper, 18-foot-high order describes a discontinuous serpentine shape and sits perpendicularly atop the lower.

There is a small courtyard at the rear of the building for outdoor installations or events, which in turn opens up onto the space shared by the FCA and the Pulitzer Foundation. That this larger outdoor space was designed collaboratively by Ando, Cloepfil, and the sculptor Richard Serra, is a pleasing sign that the two institutions are not so much the patrician and the populist of the Grand Street Arts District, but the complementary pieces of its new heart. *Anne Guiney*



Site plan 48' <

Light the Way

A burst of light heralded the birth of Modernism when early enthusiasts such as Hermann Muthesius, Alfred Lichtwark and Friedrich Naumann championed an industrial age aesthetic of simplicity and practicality—*Sachlichkeit*—in the late 1890s and envisioned an architecture glazed with large windows, adorned with fresh flowers and “flooded with light.” Coming full in the 21st century, a resurgent Modernism, led by advocates like Sir Norman Foster, Jean Nouvel and Daniel Libeskind, is reshaping architecture anew, and light—from innovative lamps and lighting fixtures as well as the sun—remains among the most powerful tools for architects. The appearance of impressive new lighting concepts and products encouraged *Architecture* to present this *Product Report on Lighting*.

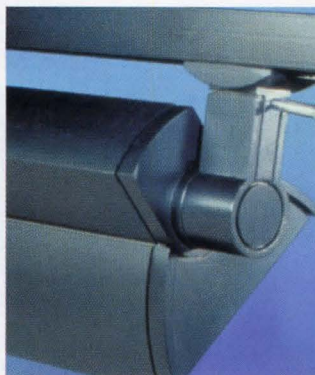
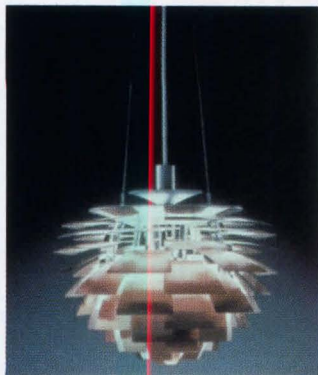
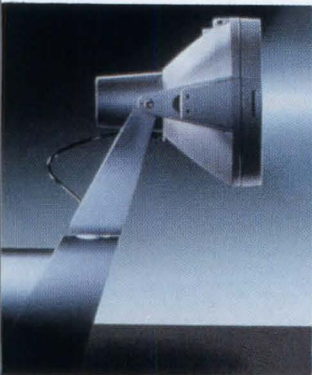
Miniaturization is sweeping the industry as lamps shrink, consume less energy and provide more color, dimming and control. Innovation in lamp design has important implications for the entire lighting industry, as Wolfgang Egger, president of **Zumtobel Staff Lighting Inc.**, the U.S. arm of **Zumtobel AG**, an Austria-based company producing luminaries, lighting components and lighting management systems, points out. “Lighting fixture development is driven by new lamp technology more than anything else,” he says, predicting that

the impact of new lamps like T5 fluorescents, LEDs (light-emitting diodes) and ceramic metal halides will be far-reaching.

A lamp with vast potential is the LED, an offshoot of semiconductor technology. Though currently limited to such uses as traffic lights and accent lighting, it promises to offer good color rendition, low energy consumption, compactness and extraordinary lifespan—40,000 to 100,000 hours. “LEDs are toys so far, but their uses will expand,” declares Sylvan Shemitz, a legendary lighting designer who is CEO of **Elliptipar**, a designer and manufacturer of distinctively styled asymmetric luminaries for halogen, fluorescent and metal halide sources. He anticipates LEDs rivaling incandescent lamps someday.

Indeed, new technology is reinventing much of the lighting industry. T5s are helping to accelerate the trend towards indirect general office lighting, **Zumtobel’s** Egger confirms, by cutting energy consumption and minimizing the lamp’s profile. Other technological achievements appear to be having similar impact.

■ New electronic ballasts make fluorescent, compact fluorescent and HID (high-intensity diffuser) fixtures a lot more versatile by adding dimmable and controllable capabilities that were once the exclusive province of incandescent fixtures, according to Travis Jones, vice



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PRODUCT REPORT

president, sales and marketing for **Visa Lighting**, a leading maker of architectural ceiling, pendant, table and outdoor fixtures.

■ "The development of ceramic metal halides with excellent color rendition and better control should extend HID's applications from outdoor expanses to indoor settings, including retailing," **Elliptipar's** Shemitz predicts.

■ Fiber optics remain a subject of considerable innovation. Gilbert Mathews, president of **Lucifer Lighting**, a manufacturer of low-voltage incandescent and halogen lighting for small profiles with high illumination, indicates that, "The latest fiber optic systems combine common source lamps and central controls

with remote locations to extend distribution, simplify maintenance and reduce operating costs."

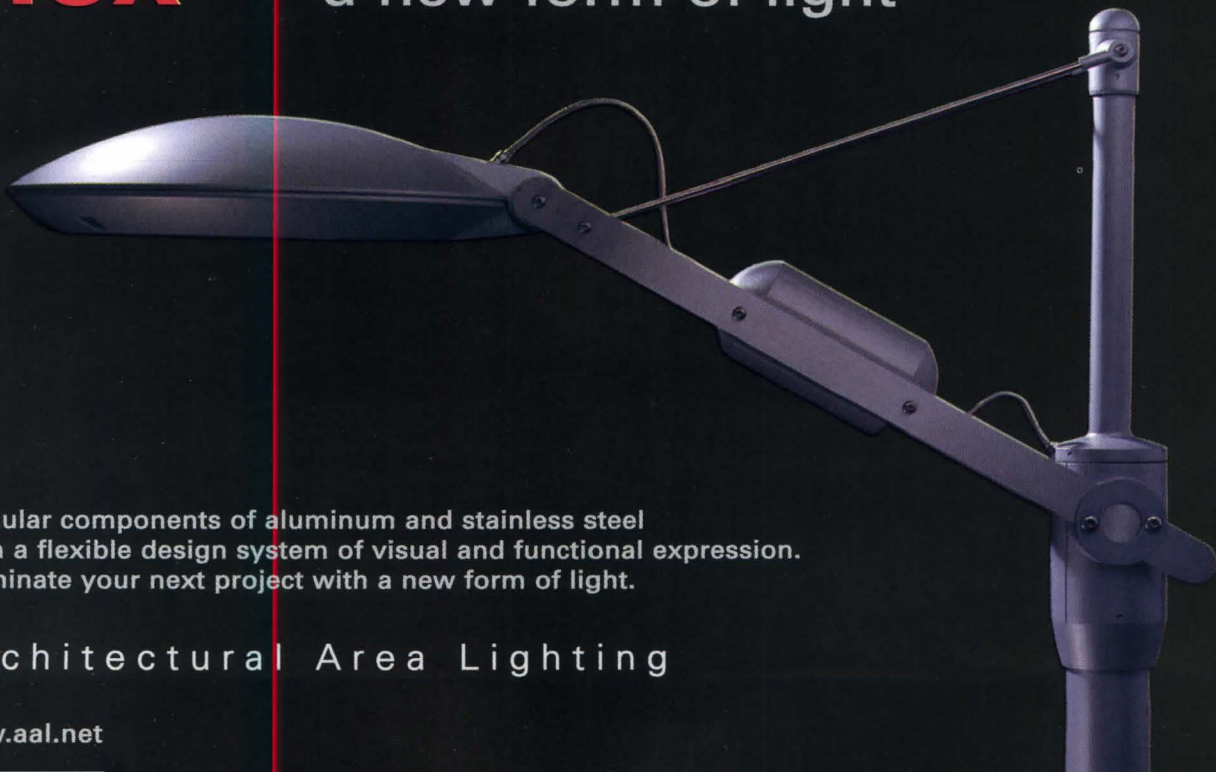
■ "Today's lighting control systems give architects more effective motion and daylight sensors, along with intelligent fixtures that can account for such conditions as time and weather to fine-tune lighting levels," according to Douglas Schaefer, designer manager for the **Advent** division of **SPI Lighting Group**.

Architectural lighting design is not standing still.

■ Mathews of **Lucifer Lighting** finds that designers are currently taking an "either/or approach" to lighting fixture installation, pitting a minimalist aesthetic that conceals sources against a complementary role

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showcasing them as architectural motifs.

■ "Lighting color and texture or patterning are becoming very important," **SPI's** Schaefer believes, "as architects and designers introduce more dramatic effects in everyday situations."

■ While fixture manufacturers satisfy ongoing demand for traditional styles, and contemporary projects opt for cleaner, more organic and simpler forms in industrial finishes, opportunities for surprises always appear. "Knoll Textiles didn't expect us to adapt their products for lighting," recalls Andy Manning, president of **R.A. Manning**, a distinguished maker of lighting for architectural projects, houses of worship and custom installations.

■ "Optical systems designed to be packaged in external housings with a range of styles are proving to be very popular with lighting designers and architects," reports Kevin Willmorth, director of marketing for **Kim Lighting**, a respected manufacturer of high-performance outdoor lighting fixtures that are frequently marketed this way.

■ The bright lights in some big cities may be getting too bright, however. April Ruedaflores, marketing manager for **Architectural Area Lighting**, a manufacturer of outdoor pedestrian and area lighting fixtures popular with architects and lighting designers, explains, "Public concern over light pollution, light obscuring the night time sky, light trespass and

another way to light

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PRODUCT REPORT

excessive light spilling onto adjacent property, is growing." As a result, the company has developed award-winning adjustable shields and reflectors for its fixtures that address these issues.

How can architects be better specifiers of lighting products in today's sophisticated market? Diane Smith, marketing assistant for **Bruck Lighting Systems, Inc.**, the U.S. subsidiary of a German company designing and manufacturing low-voltage, halogen track, cable and pendant lighting fixtures, speaks for many colleagues who urge: "Hire a lighting designer." Failing that, she adds, "Architects can help themselves by attending continuing education courses on lighting design, writing tighter specifications, and justifying their choice of lighting fixtures to clients so they can appreciate them."

Many manufacturers also welcome architects with

special needs. "Architects can become much more aware of emerging possibilities in lighting by working closely with lamp and fixture manufacturers," says Richard Crossland, president of **JJI Lighting Group**. "Companies like ours believe that sharing insight, experience and creativity with specifiers can lead to breakthroughs for everyone. Many small projects are important to us even though billion-dollar companies may pass on them."

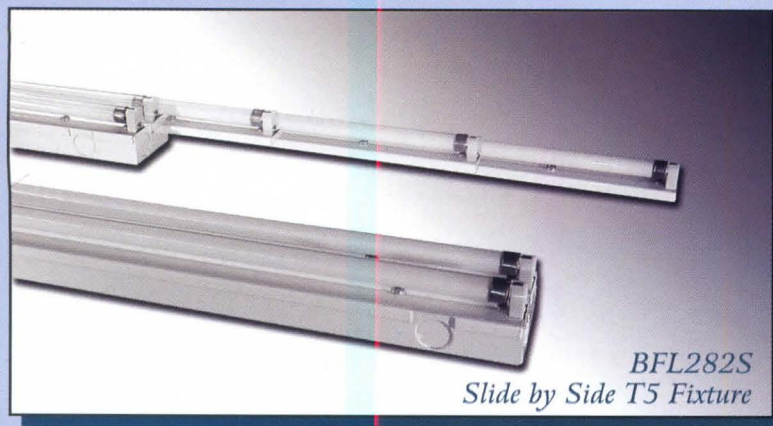
To quote Ernst Wagner, founder and CEO of **Modulightor**, a manufacturer of jewel-like modern light fixtures, "What really counts are the quantity and quality of light, and the aesthetic appropriateness and craftsmanship of the lighting fixture." **Modulightor** engineers and prototypes custom designs in weeks in a Manhattan townhouse. Nevertheless, the sense of excitement is as palpable here as anywhere else. — Roger Yee

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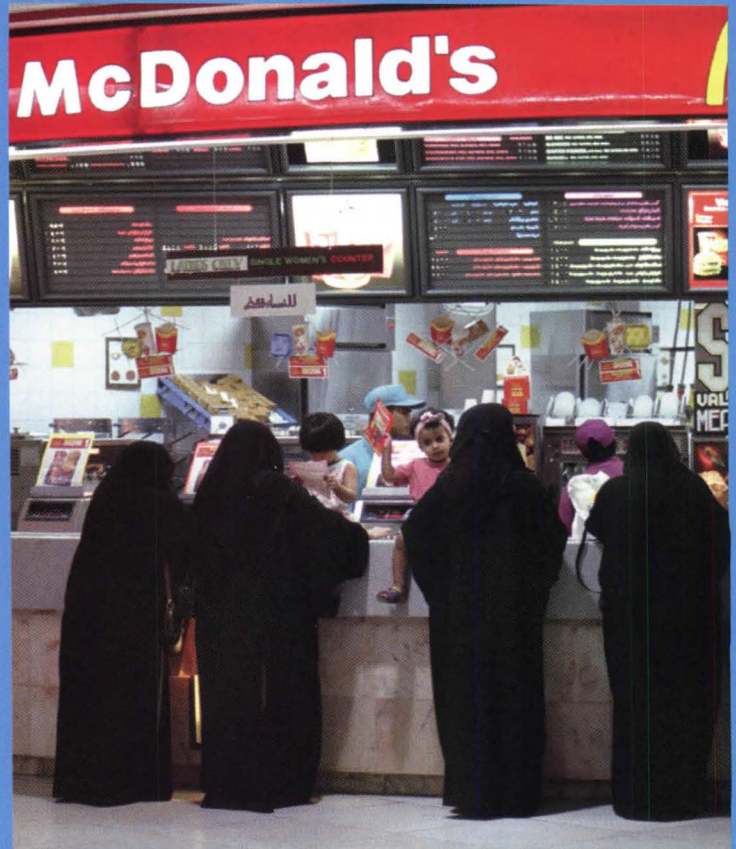
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“After being spoiled by several hectic boom years the industry will almost certainly experience a decline in construction volume nationwide.”
Economy, page 38



Global Arches

McDonald's has an architectural formula for any city on earth. **Jacob Ward** looks at the process.

Business In *Fast Food Nation*, Eric Schlosser's remarkable study of the growth of restaurant conglomerates, the McDonald's Corporation is synonymous with sprawl. Since Ray Kroc bought Richard and Maurice McDonald's restaurant business in 1955 and began to streamline the brothers' process, the company's fortunes have been linked to the car-fueled expansion of the American habitat. Using Colorado Springs, Colorado, as his anytown, Schlosser writes that fast food chains like McDonald's "feed off the sprawl . . . accelerate it, and help set its visual tone." McDonald's is the market leader among companies that "look at cars the way predators view herds of prey."

The "ladies-only" counter at a McDonald's restaurant in the Al-Rashed Mall, Dhahran, Saudi Arabia. The company's designers are charged with making a centralized model work, however they can, in 29,000 restaurants around the world.

The premise of McDonald's is that each product, and the experience of consuming it, is unrelentingly consistent. Both its strength as a brand and its efficiency as a company depend on providing a uniform experience in its 29,000 restaurants worldwide, right down to the architecture. Designing each McDonald's is as consistent as making french fries.

Ninety-three percent of all McDonald's built in the United States are designed by a 58-person team of architects, engineers, and interior and facility designers in the company's Oak Brook, Illinois, headquarters. "We have designs ready for buildings from 800 square feet up to 10,000 square feet," says Fred Matthias, the company's vice president of restaurant design, who oversees the Oak Brook team. Centralizing the design process saves the company money. As Matthias points out: "We're more efficient than hiring local architects."

Because in the United States its product is, for the most part, an "impulse buy," and because its customer base depends on automobile traffic, McDonald's is always looking for areas likely to experience steady growth. Schools were Ray Kroc's first signpost of growth, and later the company looked, by helicopter, for cheap land likely to become suburban. In recent years, McDonald's has created a line of software called Quintillion (now its own company), which automates analysis of specific market opportunities through a combination of satellite imagery, demographic information, and existing sales information.

McDonald's is divided into three divisions: East, West, and Central. Once the division's real estate managers have identified a site for development, construction specialists arrive and perform a "site investigation"—they research local codes, issue a soil report, and measure the lot. In addition, the real estate group identifies local demographics: whether customers come from a specific age group, how many have children, whether they will arrive by car or on foot. Then, the regional manager decides whether the site is economically feasible, and once that manager signs off, the design group goes to work.

A former architectural consultant to the company says that "at McDonald's there is no overview of the total design." The parts of each restaurant come from the several parts of the company. "There are food-service people and advertising people, there's the local franchisee and his wife, who will throw up some curtains and some bamboo, and there's the playland designers." The design team then assembles these components, the consultant says, like a restaurant worker assembling a Big Mac.

"When we design, we have to keep regional concerns in mind," says Matthias. "We have different seating capacities, different parking requirements, different signage ordinances," he says. "So you may see different signage configurations, but you see a consistent idea. We never give up the yellow arch." Matthias and his team provide McDonald's real-estate managers with roughly 12 to 15 possible configurations for the average restaurant.

According to Schlosser's history of the company, the McDonald's Corporation was a pioneer in the standardization of retail. In the 1960s, Schlosser writes, the company tore down most of the original restaurants, designed by founder Richard McDonald. Those restaurants featured a

yellow arch at either end of the building, which, to passing motorists, appeared as an *M*. For an untrained architect, it was an extraordinary, almost Venturian combination of logo and architecture, building and sign. Kroc replaced the old buildings with brick walls and a mansard roof, and psychologist and design consultant Louis Cheskin convinced the company to retain the symbolic arches (calling them "mother McDonald's breasts") and to collapse them into the now-famous symbol.

The design of the freestanding restaurants has since expanded to include everything from chalet to brick box. The design team also works on adapting restaurants to a wide range of special situations: malls, zoos, airports, and office buildings. Playgrounds (called "playlands") are added to restaurants in modular fashion. There are 8,000 such playgrounds in the U.S. designed to captivate not just children, but their parents' dollars by extension.

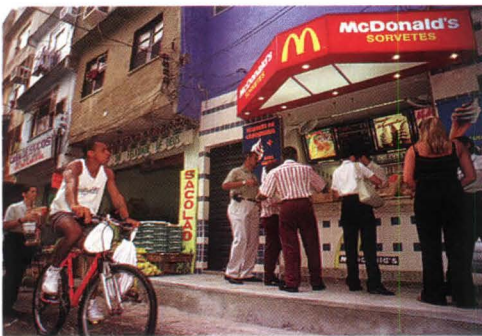
As the world's largest owner of commercial real estate, McDonald's is, for all intents and purposes, a real estate company. The company's decentralized franchise system, whereby private owners buy a franchise from the company and pay rent for the right to operate restaurants, allows the company to offload the burden of managing the minutiae of the business onto the franchisee, and receive a lump sum instead. Because it almost always owns the land and buildings, McDonald's exerts enormous control over the design of its franchises, and can revoke the franchise and shutter the restaurant at a moment's notice—372 franchises have been closed in the company's history.

"A lot of our operators are very interested in the design of the building," says John Reinertsen, a senior director in McDonald's Integrated Restaurant Innovation group. "We want the franchisees to be entrepreneurial, but we need to have a clear thread that runs through the brand. There are categories of the design—like signage and graphics—that have to be consistent."

The company may be reaching its saturation point in some regions, where new restaurants steal sales from existing ones. Three hundred new McDonald's were built in the United States last year, but next year, the company has said it will scale back new construction by 200 restaurants, appeasing franchisees' fears.

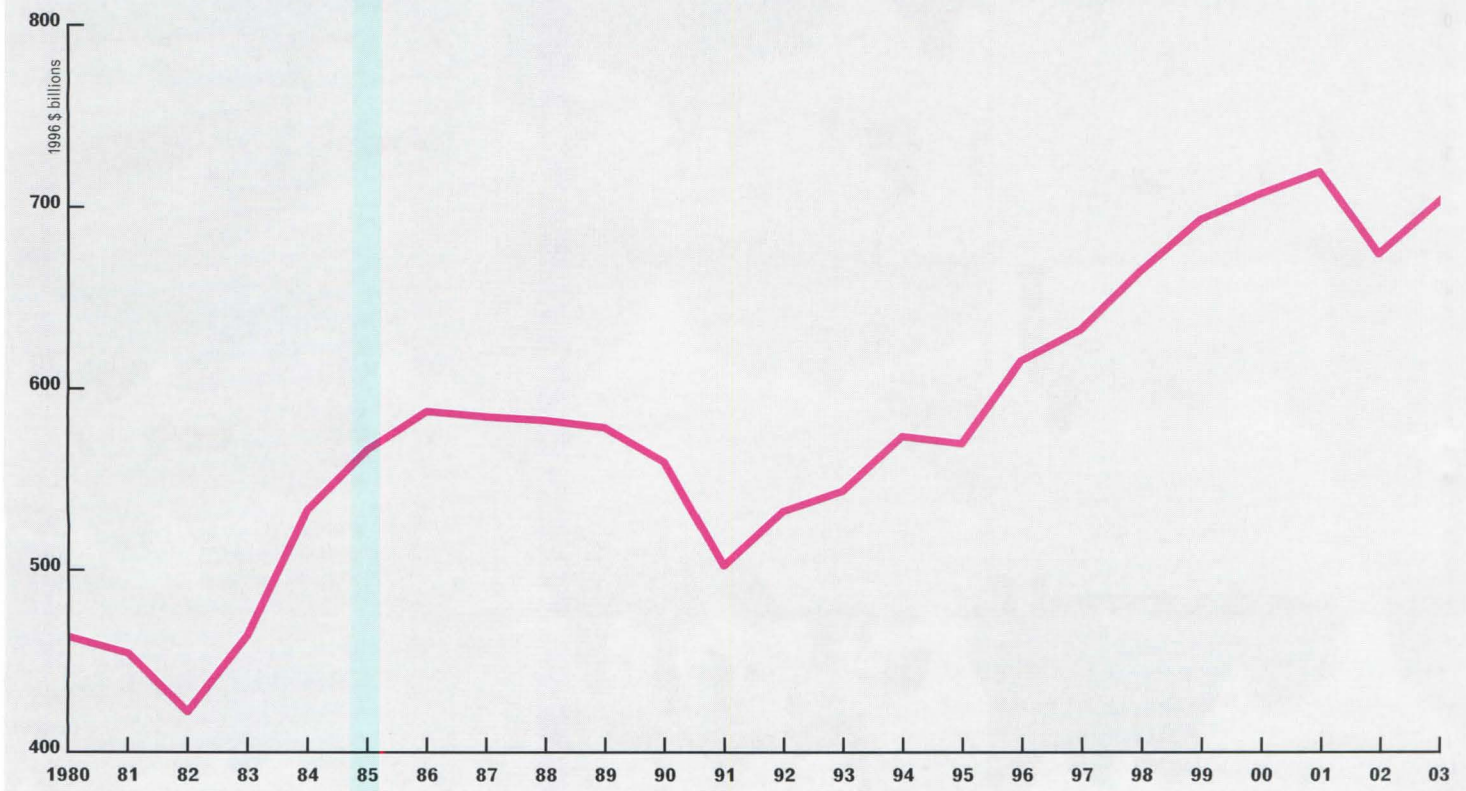
The company is still experimenting with new business models and the architectural forms that will go with them, however. A team within McDonald's, in partnership with the San Francisco office of Gensler, created two prototype restaurants in 1998 and experimented with new forms of signage, traffic flow, and kitchen design. "We developed a lab in a warehouse, where we could mock up the restaurant, complete with a live, functioning kitchen," says Reinertsen. "We mocked up the lobby out of foam core and plywood." The company then sent focus groups through the system, 100 people at a time, to simulate a lunch rush.

Bill Aumiller, principal of Aumiller Youngquist, in Mt. Prospect, Illinois, helped create a prototype "diner-style" McDonald's in Kokomo, Indiana, last year. In the restaurant, patrons order from their seats by phone, and eat uncharacteristic McDonald's fare such as steak. Aumiller says the company plans to build 10 such *continued on page 102*



In Europe, where the urban landscape is often rigidly controlled, the McDonald's design team must work especially hard to adapt its designs to existing buildings. In the United States, where drive-in business is king, the design process is much more easily systematized. **Top row, left to right:** Tokyo; Chicago; Guangzhou, China. **Second row:** New York City; Manila; Yarmouth, Massachusetts. **Third row:** Lyss, Switzerland; Prague; Pataskala, Ohio. **Bottom row:** Rio de Janeiro; Joliet, Illinois; Tehran, Iran.

Total Construction Spending



And Now for the Bad News

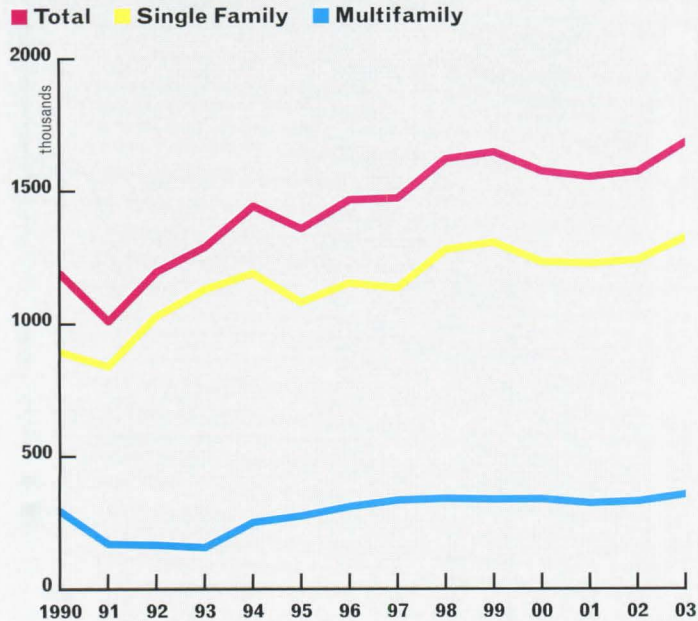
Compared to the sunshine of the late 1990s, there are dark times ahead for the design and construction industry. **Bradford McKee** prepares us for stormy weather.

Economy For architects, the 1990s ended on September 11, 2001. There were plenty of signs all around before that day of a slowing economy and shrinking design workloads ahead, but no one could have prepared for the deep shocks that the terrorist attacks and the ensuing war have dealt to the U.S. economy. Anxiety was palpable shortly after the disaster at the North American Construction Forecast conference, an annual industry powwow staged in Washington, D.C., by Construction Market Data, a construction data broker based in Norcross, Georgia.

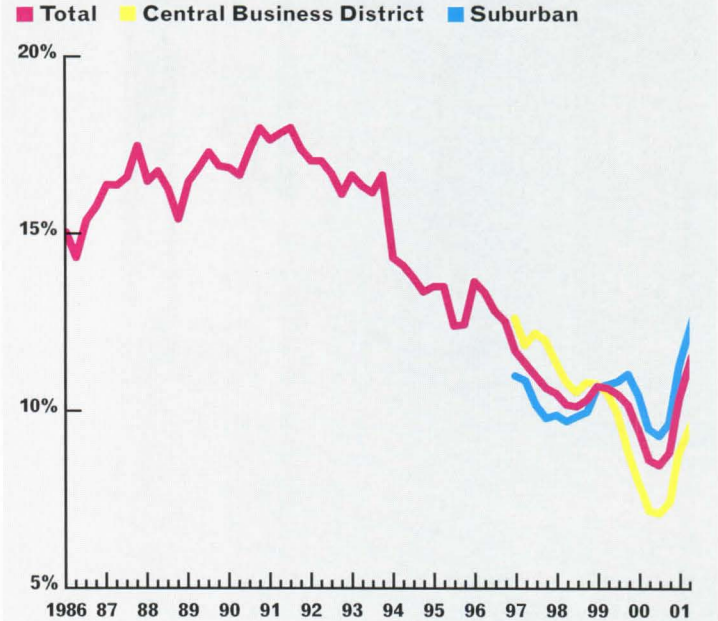
In years past, CMD's annual forecast meetings, which feature construction and real estate economists issuing predictions to several

hundred principals of architecture and engineering firms, have generally been upbeat affairs. But barely a month after the disaster, the 2001 gathering showed how quickly the mood has changed from one of mild fear about clients' corporate earnings to one of profound doubt about just what this strange time of conflict will mean for the design and construction business. The old crystal ball has cracked, and the analysts at the conference tried hard to temper the hard news: After being spoiled by several hectic boom years, the industry will almost certainly experience a decline in construction volume nationwide. But it should be in a position to absorb the effects of a long-term state of emergency, provided things calm down toward the end of 2002.

U.S. Housing Starts



U.S. Office Vacancy Rates



Suddenly, sustenance and security matter more to clients than any discretionary ambitions they were indulging yesterday. That sentiment applies to corporate clients, the hospitality sector, health care firms, retail stores, and first-time home buyers alike, for they are all feeling the effects of the same syndrome: We are dealing with circumstances unfamiliar to any living generation.

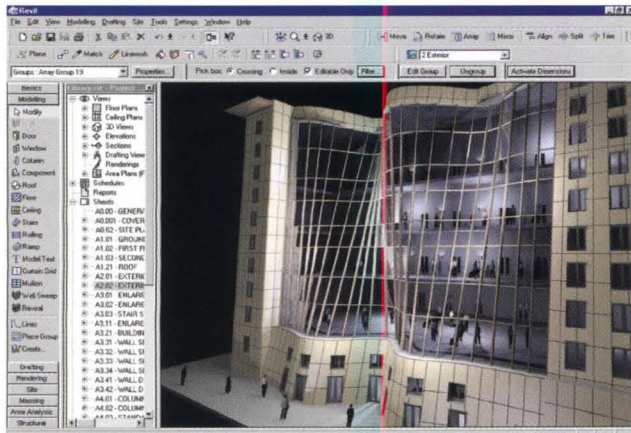
Glad tidings are scarce, but the economy could have been worse before the disaster. Inflation rates are low (2.8 percent for the fiscal year ending September 30) and interest rates are lower (the Federal Reserve's key rate stood at 2.5 percent in October) than at any time in memory, but neither of those things mean much to client companies that may be laying off workers, or to the workers, who are consumers themselves. Unemployment figures have been creeping upward since mid-2001 and may go higher as the September 11 disaster and subsequent terror scares take their toll on the transportation system, the travel business, and the mail. The Conference Board predicts that unemployment will rise to 6 percent in 2002, from 4.8 percent at the end of 2001.

In the past century, war had a way of lifting the U.S. economy, provided we fought it overseas. Nobody can really say how the economy will perform next year, especially given that another attack on the U.S. is possible. Barring any more calamity, it will take at least a year for the economy to restabilize, says William Toal, chief economist of the Portland Cement Association. "We'll have a hole in the overall economy" until the end of 2002, Toal says. He expects total U.S. construction spending, which increased from \$706.9 billion in 2000 to \$718.9 billion

in 2001, to drop by 6.3 percent in the coming year, to about \$673.6 billion, before beginning a recovery in 2003.

What qualifies as pain after the record expansion of the late '90s? In 1998 and 1999, it looked as though there would be an oversupply of housing, with nearly two million new housing starts, while census figures showed the population was growing too slowly to buy them all. Demand kept pace with supply, however. David Seiders, senior vice president and chief economist of the National Association of Home Builders, says that it has since become clear that the government undercounted (by about 200,000 per year) the number of households made up of new immigrants. Home sales increased by 1.2 percent in 2001; Seiders expects them to fall by 8.5 percent next year. In October, NAHB's survey of its monthly Housing Market Index, an aggregate of various current and anticipated market characteristics (such as home buyer foot traffic through available units), dropped 8 points, from 56 to 48, and slightly more than half of NAHB's homebuilders said they had seen a drop in new home sales since the September attacks.

Vacancy rates for commercial office space will likely hover between 12 and 13 percent between 2002 and 2004, reports Ray Owens, a research officer and senior economist for the Federal Reserve in Richmond, Virginia. Vacancy rates in the middle Southwestern United States are at 16 percent, and they stand at 14 percent in the Southeast. Those figures run higher than they have in recent years, but are not bad compared with the huge office vacancy rates of the early to mid-'90s (vacancies nationwide peaked at 17.4 percent in 1990, and dipped to a still-hostile



Software

Revit: Don't Call It CAD

Revit Technology is fighting to expand its niche in the CAD market. The company's first claim to fame was that its software is a "parametric building modeler": elements in a design are synched to one another in Revit, so that when a door is lengthened in one diagram, all corresponding doors lengthen as well.

With its 10th software release last month, Revit 4.0, the company is seeking to gain a foothold in new markets: The new version of the software allows diagrammatic information to be converted into a universal spreadsheet format, for use by construction managers and other contractors. The feature is part of a company push toward the design-build industry, which Revit sees as an enormously important future market. At the same time, the company is trying to improve its graphic presentation capabilities. For instance: 4.0 allows archi-

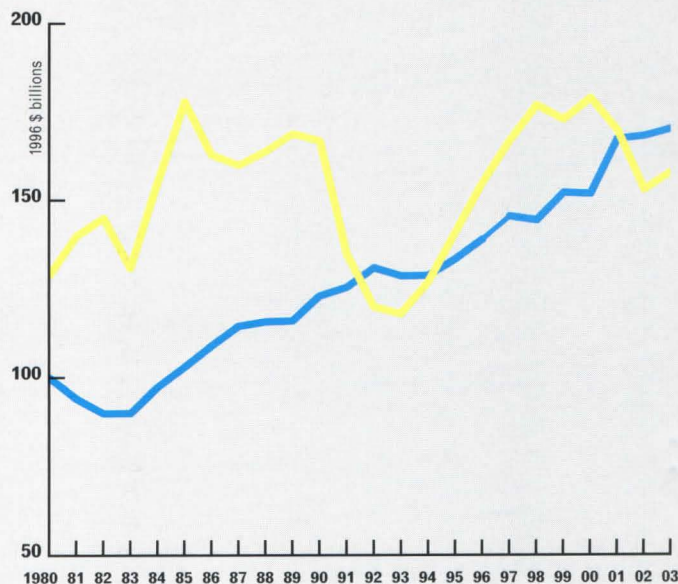
tecs to import three-dimensional, shadowed Archivision scale figures.

Company executives are loathe to call Revit a "CAD company." Where CAD software packages like MicroStation and Form Z are geared to rendering celestial, abstract forms, Revit focuses on the buildable—buildings are rendered one pane of glass and panel of Sheetrock at a time. Place a beam atop a nonbearing wall, and the software blips a warning at you.

Revit's greatest competitive asset before now has been its low price tag: for \$149 a month, subscribers get the software, upgrades, tutorials, and customer support. But the practical features of the software are expanding. The company hopes that as its features mature, the software will soon be considered far more than a budget design tool, and will capture market share from 800-pound gorilla Autodesk as a result. *Jacob Ward*

Construction Spending by Sector

■ Private Nonresidential ■ Public



12.47 percent by the end of 1995). Owens says the Fed knows commercial office leasing will be "sluggish" in 2002, but does not know for how long, as there are still a lot of available subleases on properties occupied by failed technology tenants, especially in places like northern Virginia, where the shuttering of tech companies brought up to 5.5 million square feet onto the market in 2000 and 2001.

The office-market cycle runs strictly locally, as Glenn Mueller, professor of real estate at Johns Hopkins University, points out. In several markets, such as Washington, D.C., San Diego, Los Angeles, and New York, new construction continues despite rising vacancies. But things are worse in Dallas, Jacksonville, Tampa, and Salt Lake City, Mueller says, where office markets have officially entered recession.

Alongside the office market in the "weaker" category of construction prospects are hotels, industrial buildings, and retail stores, Toal says. And public construction, he added, may falter a bit as well. Growth in public construction—which includes government buildings, highways, and infrastructure—reached 10.3 percent in 2001, but states and localities are starting to feel the pinch of lower tax revenues stemming from a slower economy. Iowa, for instance, recently cut \$3 million out of its highway budget, and California is considering reducing its highway spending by 10 percent, moves that suggest public spending is becoming strained. Toal expects public construction nationwide to grow by a mere 0.5 percent in 2002 before making a 1.2 percent increase the following year. At least, that's the optimistic view in an economy plagued by massive doubts. ■

culture

Alexander J. Reichl
on Times Square
page 46

Eric Fredericksen
on Surprising Sprawl Studies
page 48



Eco City

A housing expo in Malmö, Sweden, claims to be the “City of Tomorrow.” **Nicholas Adams** looks for the vision and finds a muddle.

Housing Sweden’s traditions of social housing are strong. The 1930s functionalist housing of Sven Markelius and the Kooperativ Förbundet still attracts admirers, and Stockholm’s suburbs from the 1950s, Vällingby and Farsta, are models for the integration of shopping, housing, and transportation. But the flood of massive government-built concrete apartment buildings during the 1960s and 1970s, as old urban cores were razed and rebuilt, punched holes in Swedes’ progressive faith in modernist architecture and planning. This summer and

Moss growing on a glazed exterior wall of Gert Wingårdh’s apartment building demonstrates one of the ways ecological themes are incorporated into Malmö’s “City of Tomorrow.”





The shared roof of these row houses by Kai Wartainen and Ingrid Reppen (facing page, at left) hosts a garden of wild grasses and flowers. A line of four- and five-story apartment buildings (top left) overlooks the wide sound between Sweden and Denmark, shielding smaller structures inside from strong winds off the water, while inland another apartment block (top right) faces a wavy-edged canal and a park. On a prominent corner overlooking a marina, Månsson Dahlbeck Arkitektkontor's apartment block (bottom left) drapes corbeled brick-wall curtains in front of its windows. A rocky seawall (bottom right) shores up a wide promenade along the sound.

fall's big housing exhibition in Malmö, "Bo01—City of Tomorrow" (the name means "Living 2001"), shows that Sweden is still trapped in a nowhere-land between good intentions and bad design.

Malmö rests on the tip of southern Sweden, just across the Öresund strait from Copenhagen and near the new bridge linking Sweden and Denmark. The plan of Bo01 was to build a model housing estate on vacant waterfront landfill, leading Malmö's urban growth out toward the Öresund rather than inland onto precious agricultural land. Sydkraft, the local power company, concocted an ecological theme for the exhibition, incorporating alternative energy sources including wind, solar, and biogas, and sea and ground water for heating and cooling. The site plan by Klas Tham prescribed high building density—large blocks with four- to five-story apartment buildings along the sound sheltering smaller townhouses behind them from the strong winds—and low vehicular traffic. Organizers tapped some of the big players in Swedish architecture to

build houses and apartments (Gert Wingårdh, FFNS, Ralph Erskine, Nyréns, and White) as well as architects from abroad (Moore Ruble Yudell from the United States, Kim Dalgaard and Tue Trærup Madsen from Denmark). Yet, when I visited in late July on a beautiful summer day with a high blue sky overhead and a warm wind off the Öresund, it was clear something was rotten in Sweden. No lines at the gates, the information barn empty, and too many people looking a little like me, poking around for ideas rather than scouting out places to live.

Bo01 was a cooperative venture between the Swedish government, the city of Malmö, Sydkraft, and an alphabet soup of mortgage companies, housing agencies, and contractors. European Union sponsorship gave it further official backing. *Swedish contractors are big and notably shrewd*, and soon any aspect of the master plan beyond site lines went out the window. At Bo01 the apartment prices are like those in Copenhagen or Stockholm, in a city whose economy has been in decline for decades.



Bibliofile

Times Square Roulette, by Lynne Sagalyn (MIT Press)

If, as Lynne Sagalyn asserts, “the deal is in the details,” then this book is the real deal. Sagalyn masterfully recounts the two decades of deal-making behind the latest “rescripting” of Times Square. Born in 1904 under the constellation of theaters, brothels, subways, and the *New York Times*, by the 1980s Times Square was associated with porn shops, streetwalkers, and crime. Today, tourists and “suits” jockey for sidewalk space in this capital of corporate entertainment and media.

Public officials are the unlikely heroes of her tale, and Sagalyn rightly credits former Mayor Edward Koch with taking the gamble that Mayor Rudolph Giuliani cashed in on. City and state officials won support by requiring that private developers fund all up-front

costs for new office towers, renovated theaters, and an improved subway station. But “off-budget financing,” in the form of generous tax breaks, obscured the true costs and left the bill for future New Yorkers.

On the charge of “Disneyfication” that preoccupies architects and urbanists, Sagalyn is dismissive of critics for their misguided nostalgia and anti-Disney elitism. Despite her concern that black and Latino teens have lost their place “to chill,” she is struck by “the almost combustible social and economic diversity—seeming chaos...[that] marks the true iconic legacy and unchanged reality of Times Square.”

Sagalyn may be right about the Square’s “crackling energy,” but it is no longer the type of energy generated by the social friction of a contested space. For better or for worse, this too was Times Square. *Alexander J. Reichl*

The troubled union of progressive ecology and private development has produced an aesthetic mishmash. The houses offer plenty of whizzo gimmicks—beepers tell you when the milk is low, communications networks allow you to turn on the meatballs via cell phone when you leave the office, electric lights dim when you leave the room, and so on—but offer little in the way of meaningful design innovation from the level of the master plan down to detailing.

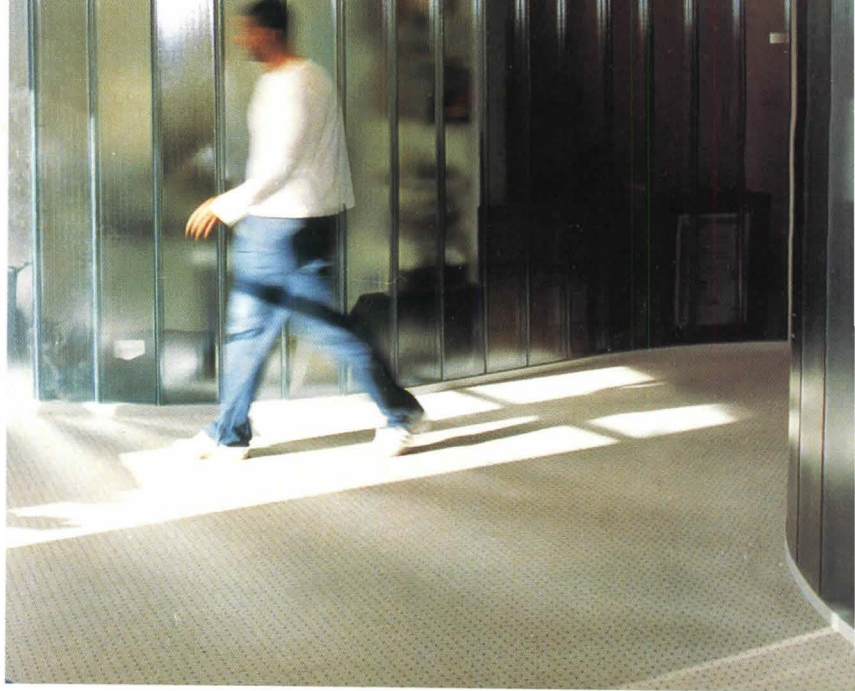
The dominant style is a hokey form of nautical Nordic Mediterranean, but in a violation of the first rule of ecology, individuality triumphs over community. Many of the architects have broken the master plan’s call for white as the dominant color, and others have fabricated attention-grabbing idiosyncrasies to draw attention to their buildings. Only the work of the Swedish star Gert Wingårdh stands out. Eschewing the nautical theme for something altogether original, Wingårdh’s use of the windows like screens, tight to the skin, creates a checkerboard pattern of solid and void, a witty updated modernist puzzle.

Housing exhibitions have a long tradition in Sweden, going back to Gunnar Asplund’s famous Stockholm Exhibition of 1930. But recent versions, including this expo and ones in Helsingborg (1997–99) and Nybodahöjden (1997–98), seem plagued by an anxiety to avoid the concrete blues wrought by the government 30 years ago. All have adopted free-for-all development as an antidote. Even in the smaller-scale backs of the blocks where things might have quieted down, the jumble of ecologically correct gardens, grass- and wildflower-covered roofs, solar collectors, and passive solar walls give the site all the warmth of a product catalogue. Before Sweden announces its next housing exhibition, planners and contractors should sit down and work out precisely what went right in the old days of social housing and what’s going right in the current development of green building concepts. A muddle like Bo01 gives both ecology and architecture a bad name. ■

Nicholas Adams teaches architectural history at Vassar College and is a member of the editorial board of Casabella.



Brightly colored stripes on the façade of Ralph Erskine’s apartment building hint at the lively spectrum of the inner courtyard walls.



innovation - in and out of the box

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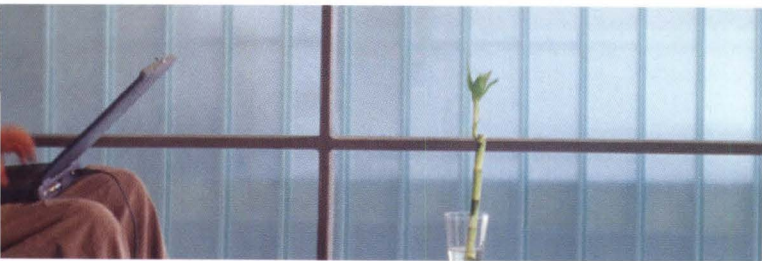
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This is Not Sprawl



The endless grid of Los Angeles may not appeal to Jane Jacobs acolytes, but it holds more people per square mile than any other metropolitan region in the continental U.S., according to two recent studies. **Eric Frederickson** explores some surprising truths about America's urban growth patterns.

Sprawl For a term in wide use, sprawl has a remarkably slippery definition. It has no accepted yardstick for measurement, and until this year nobody had even attempted to comprehensively measure it. It stands in as a catchall for auto-centered development, scattered housing, strip malls, tract houses, and anything else despised by urbanists and environmentalists. But what it is, beyond a convenient term, has been unclear. That might not be a problem: Maybe we can't define sprawl, but we know it when we see it, and it looks a lot like Los Angeles.

This year, *USA Today* and the Brookings Institution published the results of parallel but competing studies intended to subject sprawl to the rigors of statistical analysis, and among their findings are some serious challenges to conventional thinking on the subject. For starters, taken as a metropolitan region, the five-county southern California megalopolis of 177 cities that we gather under the term Los Angeles is denser than any other urban region in the continental United States. To be specific, metropolitan Los Angeles uses less land per resident than any other urban region in the lower 48 (Honolulu alone beats it). And though it has the worst traffic in the nation, it's denser than New York, denser than San Francisco, denser than Chicago (Phoenix is denser than Chicago!), denser than—gasp—Portland, Oregon, the poster child for intelligent growth management. Time for a revision in popular thinking?

Such a revision was exactly what *USA Today* and Brookings set out to do by generating the first comprehensive nationwide studies of sprawl. Both were inspired in part by Los Angeles, which they knew was at some level getting a bum rap, as well as by the lack of any rigorous attempt to define and measure sprawl. Previous studies included a lengthy 1997 report and city ranking from the Sierra Club which, as *USA Today* reporter Haya El Nasser puts it, “was very subjective. It was pretty clear that there was nothing scientific to it.”

“We decided we might be able to bring some honesty to the debate—and there wasn't any at that point,” says her cowriter, news database editor Paul Overberg. El Nasser describes resorting to a dictionary, where she found sprawl defined as “using more space than you need,” which led her to density. And as it turned out, density emerged as the only clear and easily available measure of sprawl. “No matter what we did we'd have to include density,” says Overberg. “Just by measuring density, we could find some really interesting patterns that no one has talked about.”

USA Today, which published its report in February, used Census numbers indicating what percentage of a metropolitan area's residents lived in urbanized areas, defined as densities of higher than 1,000 residents per square mile. The authors ranked the Census Bureau's list of “metropolitan statistical areas,” or metro regions, by the percentage of their population living at densities higher than 1,000 per square mile. A second ranking indicated how that percentage has changed over the past decade, capturing the verb form of sprawl alongside the noun form. Brookings issued a more precise report in August, using new data from the U.S. Department of Agriculture that estimates how much land in a region is devoted to urban uses. By dividing that

number by population, Brookings generated a solid number relating land consumption to population.

Sprawl does not respect political boundaries, so neither did the researchers. By using the U.S. Census Bureau category of “metropolitan statistical areas,” the studies jumped across city boundaries and state lines to capture the total human ecosystem of a given region. In the case of Portland, this meant considering not just the three counties that participated in creating its famed urban growth boundary, but also the fast-growing nearby towns of Vancouver, Washington, and Salem, Oregon, which are close enough for commuters but outside the growth boundary.

By accounting for population growth over the 10-year period studied by *USA Today* and the 15-year period of Brookings, the reports' measurements make apparent major differences between supposed sprawl capitals like Las Vegas, which has actually gotten 50 percent denser between 1982 and 1997, according to Brookings, and Atlanta, which has also gained a lot of population, but has used much more land per new resident than Vegas.

The reports had much in common. Both found that the West sprawls less than any other of the U.S.'s four main regions, largely due to water supply issues and geographical constraints. The Southeast sprawls the most—and notorious Atlanta is far from leading the pack, as cities like Macon, Georgia; Decatur, Alabama; and Tuscaloosa, Alabama, lost some 50 percent of their density between 1982 and 1997. The Northeast sprawls at a good clip, even in places like Buffalo that are losing population. Regions with lots of fragmented local governments sprawl more than ones with centralized authorities. Small cities sprawl more than big ones: The least dense city in America turns out to be tiny Ocala, Florida, a bucolic place in the middle of the state that's a center for horse and cattle breeding, citrus groves, and gated subdivisions.

The Brookings study provided a series of opportunities for further research on sprawl. Researchers compared a slew of other statistics with their sprawl data, searching for correlations between sprawl and various political, geographic, and demographic measures. Oddities abound: Fast-growing metros urbanize land more efficiently than regions with slowly growing or shrinking populations. High-density regions consume more new land per new resident than low-density—already sprawling—ones. Cities with high numbers of immigrants sprawl less than those with fewer immigrants, but cities with high Hispanic populations (and low immigrant populations) sprawl faster. The strangest finding is that higher local highway funding correlates with less rapid growth, contrary to assumptions.

“Because regions aren't growing the same, there shouldn't be a one-size-fits-all solution to sprawl,” says Rob Puentes, senior research manager at Brookings. He points out the limits to their study, saying, “This is just one definition of sprawl. It is not the be all and end all, because sprawl has too many meanings.” *But these studies do point to a new level of rigor in thinking about sprawl, and future studies should aim to match their seriousness and scope. The process could lead to complex solutions for this complex problem. Learning from Los Angeles, anyone?* ■

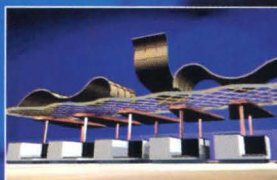
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Andy Warhol's *Liz Taylor*, 1964, at the Pulitzer Foundation for the Arts

CREATIVE FRICTION

Andy Warhol and Tadao Ando. The two could not be more diametrically opposed as critics of modern life, and yet there they are: an out-of-register Warhol silkscreen hanging on the pristine walls of Ando's lavishly minimal new Pulitzer Foundation for the Arts in St. Louis. While Warhol slyly appropriates the products of a media-obsessed culture in order to undermine it, Ando turns away, creating a monastic building that spurns the clamorous world beyond its walls.

But building and picture act upon one another in unpredictable ways. In her garish colors, Liz Taylor smilingly invites chaos back into the quiet compound. At the same time, Warhol's distorted image, rendered to tell a story about fame instead of beauty, paradoxically gains the dignity of an 18th-century court portrait in Ando's austere setting. *This is the unexpected pleasure that awaits visitors to these rooms, beyond the art and the building—the sparks that fly between them.*

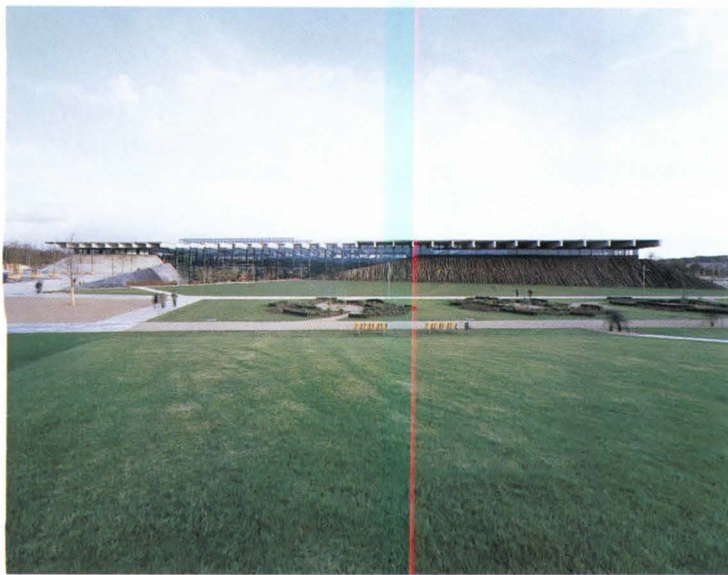
A photograph of a green wall, likely a living wall or vertical garden, with a red vertical line running down the center. The wall is covered in dense green foliage. In the foreground, there is a pink flower bush. The background shows a building with large windows and interior lights.

GUNS AND ROSES

Barkow Leibinger Architects pacify a politically charged military parade field in Germany.

By Joseph Giovannini







Barkow Leibinger's Biosphere outside Potsdam, Germany, sits between new concrete and earthen berms that mimic former military installations existing on the site. The berms flank a 65,000-square-foot exhibition greenhouse (all photos, facing page). Visitors enter from the south (above).

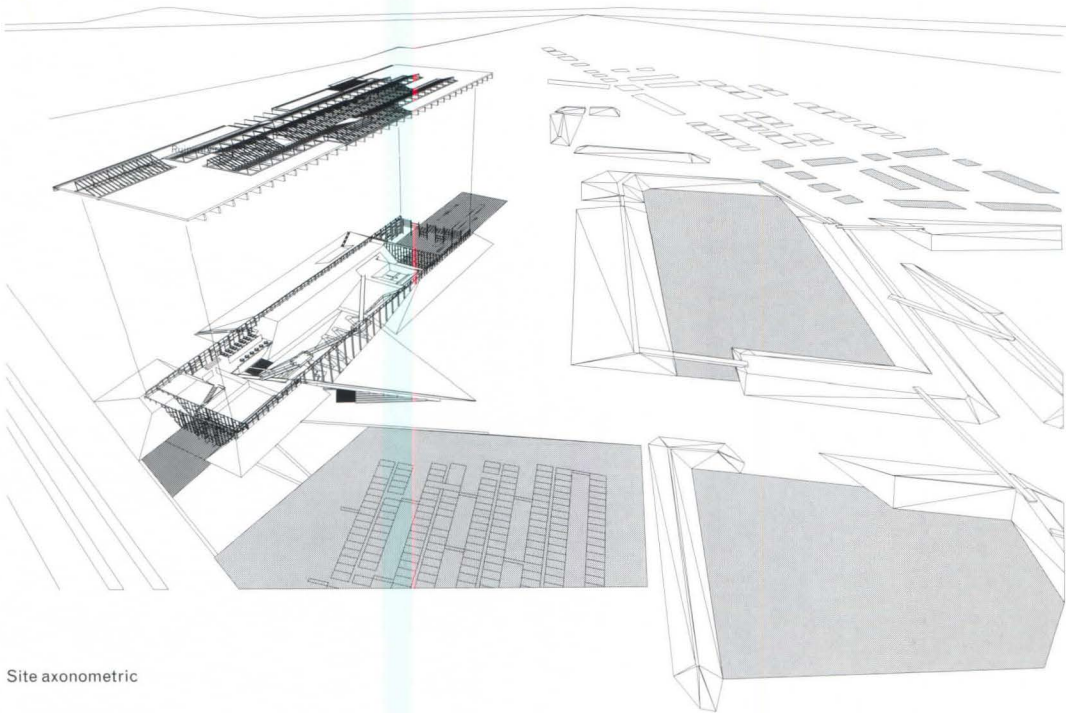
In its reconstruction over the last decade, Berlin has pursued the general European desire, as articulated in Aldo Rossi's seminal writings, of recuperating collective memory through associations cued by buildings. But in the new German capital, recuperation really entails the more urgent goal and wiser good of transformation. Some pieces of this difficult terrain (especially around the Brandenburg Gate) are like Superfund sites, intractably degraded by association with the Nazis and the pain of the Holocaust. Building on such wounded ground has often meant recasting the site through Germany's seemingly inescapable subject, representation: On façades, glass equals the transparency of democracy, for example, while stone supposedly affirms the tradition of European city building. If architecture is a tool for restructuring the national consciousness and conscience, every decision matters—and has meaning.

Historically, the Brandenburg Gate led carriage and king to the palaces of Potsdam on the Brandenburg plains, seat of Prussian military power; even outside the hotly contested city, ground is "occupied" by memory—though less radioactively. So when Barkow Leibinger, an American-German firm based in Berlin, entered a competition to

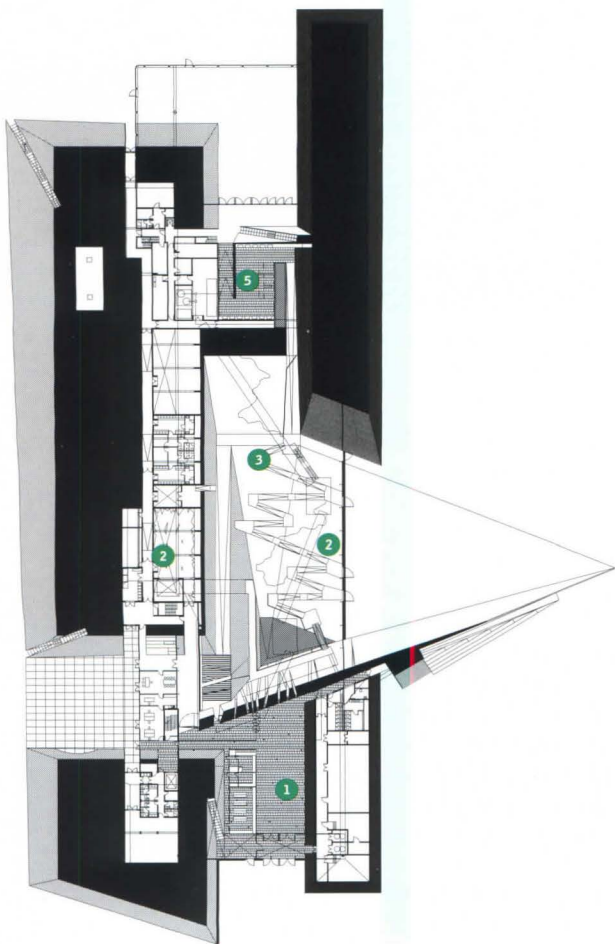
design a 65,000-square-foot, low-budget biosphere for the 2001 German Flower Show in Potsdam, they confronted a site with a past. The Prussian army had used the grounds for field maneuvers, as did the Nazis; during their occupation, the Russians bermed ramparts around their barracks there. "This is one of the first military sites to be recovered since unification," notes Frank Barkow, a Montana-born architect who found his way to Germany via Harvard.

There were other pasts nearby. Frederick the Great's sublime Sans Souci rides the crest of a hill terraced as a vineyard, and in their almost delirious repetitiveness, the tiers add up to a piece of land art *avant la lettre*. Sans Souci itself may be masonry, but it is conceived and decorated as an open, lighthearted trellis: architecture and nature intertwine interdependently. Nearby, Karl Friedrich Schinkel's more severe Italianate villas separate architecture from nature, with colonnaded arbors only accepting vines as an act of *architecture oblige*.

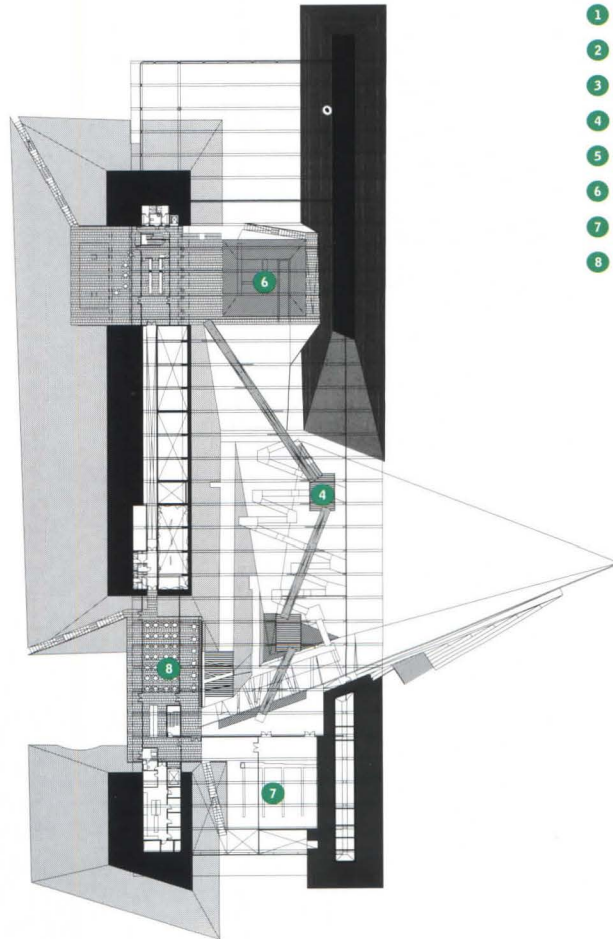
Nearly all the competitors in the Biosphere competition neatly sidestepped the complex and daunting issues of local history by proposing glass pavilions in the Crystal Palace tradition, acknowledging a more benign, and distant, typological history. But for Barkow Leibinger,



Site axonometric



Ground-floor plan 1/26' ↙



Upper-floor plan with reflected ceiling plan

- ① entrance
- ② exhibit
- ③ footpath
- ④ elevated path
- ⑤ video theater
- ⑥ water basin
- ⑦ laboratory
- ⑧ restaurant



The architects compressed the building section where visitors enter the main exhibition areas (above); they also pitched walls and ceilings to enhance phenomenological variety.

which has recently built factories near Stuttgart conceived in an interdependent relationship with the surrounding landscape, the commission to design a horticultural center encouraged a response to Potsdam's traditions of cultivating nature. There were also tight budget, time, and programmatic constraints. Construction had to be completed in a year, and after six months, the garden show would be taken over by the complex's second client, a movie theater company, which would run the pavilion as an "edutainment" attraction for 20 years, featuring landscape themes.

The berms left by the Russians might have martial associations, but for Barkow and Regine Leibinger, his Harvard-trained German partner, the linear mounds resonated with pieces of American land art by Peter Smithson, James Turrell, and Mary Miss—works that served as a point of departure for reinterpreting the site.

With new berms, the architects formed a rectangular precinct large enough for a changing in-ground garden exhibit, using mounds of recycled concrete filler and soil taken from a "valley" excavated between the berms. By digging into the ground below prevailing grade, they maintained, overall, a low profile while achieving a tall interior.

The strategy keeps their monumental new earthwork from rivaling two nearby 19th-century hilltop monuments, Pfungstberg and Ruinenberg. The architects bridge the berms north-south with precast-concrete beams 120 feet long, supporting a largely glass roof with operable skylights that induce drafts originating at the windowed façades. The roof slopes 3 percent, tilting rainwater into a cistern used to humidify the interiors. Developing ecological issues in their pavilion, the architects used "greenness" as a purifying notion to help neutralize and pacify the site's military character.

The long interior is segmented laterally, with an entrance hall at the south end, nearest the parking lots, and an orangery to the west. A long, tall, sloping artificial cliff covered in a seismic patchwork of slate slashes north to south across the building, through the façade, and into the surrounding park, breaking the structure's linear directionality. Bordered and defined by the cliff, a large wedge of space breaks through the façade and emerges from the building, linking the interior with the park outside. The resulting sunken triangle, with its sloping embankments, is the site of the main exhibition garden.

With a nearly flat roof hovering over an Alpine ground plane inside,





The greenhouse, which runs more than 500 feet from east to west, has exhibits on several levels and is accessed by suspended walkways as well as by zigzag footpaths (left). Bridging the berms from north to south, 120-foot-long concrete beams support a roof comprised largely of skylights (above); the roof slopes 3 percent so rainwater can be collected to humidify the heavily planted interior. A slate-faced artificial cliff cuts through the greenhouse (above center), and an upper-level exhibit area is held back from the bermed perimeter wall at the entrance (top).



Switchback footpaths mimic the seismic history of the site as well as bring visitors closer to more exhibits (above). Part of the eastern façade is covered in logs that recall picturesque German building traditions (facing page).

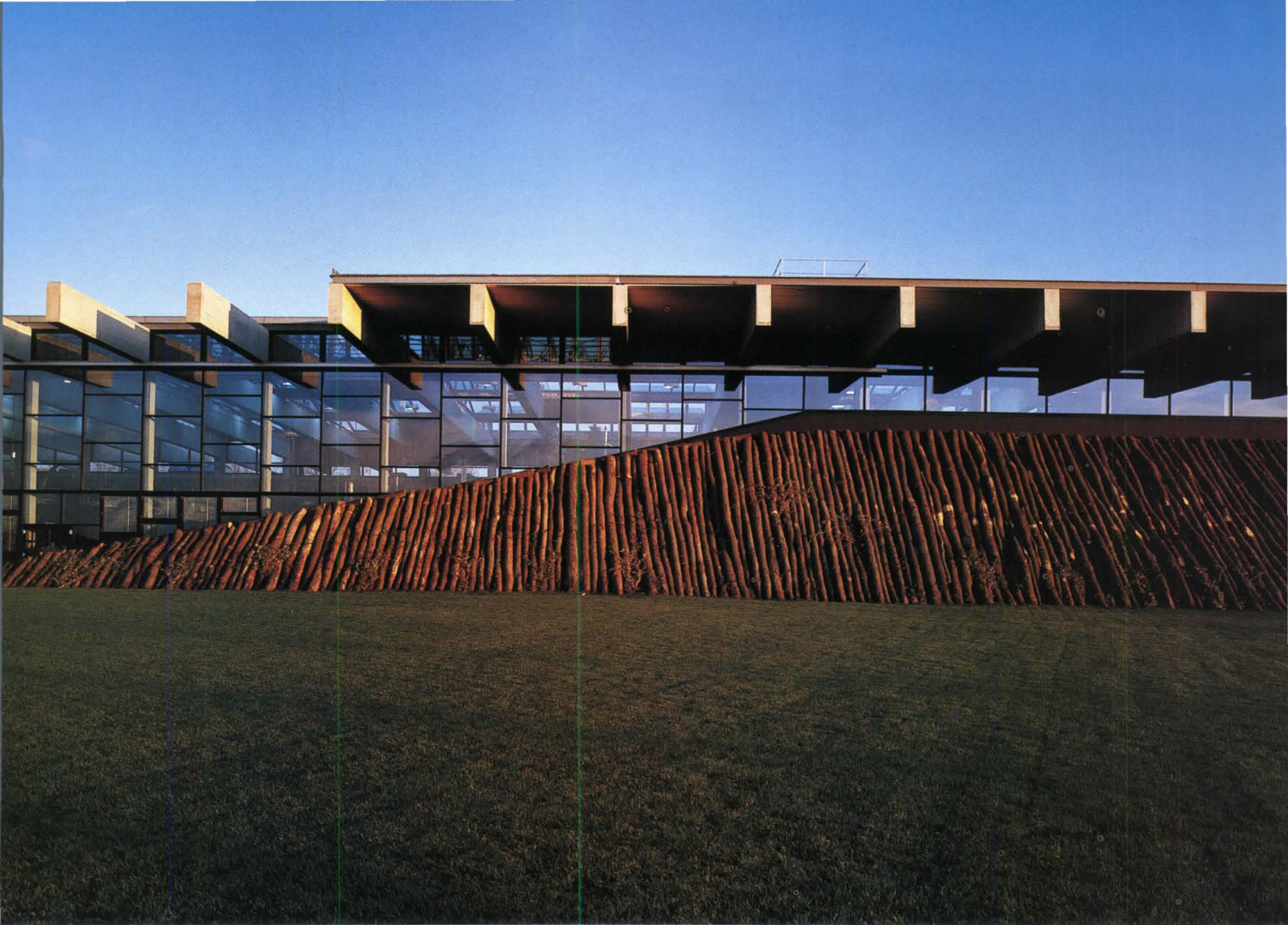
the architects simply inverted the section of the usual garden conservatory. The berms, which define the space, assist in the presentation of the plants: Long, wide surfaces tilt up toward the people streaming by on switchback paths and a zigzag catwalk suspended from the beams. The path also winds past an aquarium equipped with glass-bottomed oculi that send light rippling to the level below, where visitors can peer up through the water to the sky. “The windows operate as lenses that give a disorienting optical experience,” says Barkow, revealing that the architects cultivate phenomenological sensations in their designs.

There are shortcomings. Circulation could have been clearer: Taking an elevator near the entry to an orientation chamber at the beginning of the promenade muddles the spatial sequence. A log-covered berm on the front façade fuzzes the crispness of the design, adding an inexplicable message—*heimat* (homeland) style? The terrain of Barkow Leibinger’s Potsdam investigation and their others outside the capital has established the firm as one of the most progressive in Berlin, one that has not had to bend principles to comply with the conventionalizing expectations of building in the capital. They were the provocative choice to design the American pavilion at the 2000 Expo in

Hannover, although, shamefully, no corporate or governmental funding materialized for their ingenious pavilion.

In their exposition hall in Potsdam, despite their ambitious objective to absorb and redefine the landscape with an inverted, non-normative building, the architects produced an unself-conscious design that never gets pretentious or fussy: The Biosphere exists somewhere in a hybridized blur between land art, industrial architecture, and ecological strategy. Except for a couple of Judd-like light troughs secreted in stair landings, there are few obsessive details to imply the building is a tailored architectural object. The budget, schedule, and scale hardly allowed for architectural self-absorption. Barkow Leibinger has decisively recast the grounds by simply grafting a transformative idea to an existing terrain. They do not resort to typologies for circumstances in which none exist.

This is an original work, a formally strong, conceptually powerful and, above all, inventive building that takes an inclusive and multidisciplinary approach to precedent and memory. The building emerges as its own best exhibit, for both of its programs, and a worthy addition to the landscape of ideas in this difficult but fertile historical ground. ■



**BIOSPHERE AND FLOWER PAVILION FOR THE GERMAN GARDEN SHOW 2001
POTSDAM, GERMANY**

CLIENT: City of Potsdam, Germany—Mattias Platzeck (mayor) **ARCHITECT:** Barkow Leibinger Architects, Berlin—Frank Barkow, Regine Leibinger (principals); Julien Monfort, Heiko Krech, Stefan Brame, Oliver Neumann, Cirsti Weich (competition team); Heiko Krech (project architect); Christian Helfrich, Dietrich Bernstorf, Giuseppe Boezi, Bernd Jürgens, Stephanie Kaindl, Jan Kircher, Volkmar Nickol, Karin Ocker, Andrea Pelzeter, Florian Steinbächer (construction team) **LANDSCAPE ARCHITECT:** Gabriele Keifer, Berlin **ENGINEERS:** Hörnicke, Hock, Thieroff (structural); M + M (mechanical/electrical/HVAC) **CONSULTANTS:** Martin Diekmann (landscape interior); Mattias Reese, Jan Dinnebier (lighting) **GENERAL CONTRACTOR:** Harms & Partner/Barkow Leibinger **COST:** Withheld at owner's request **PHOTOGRAPHER:** Margherita Spiluttini, except as noted



SPACE FOR SPACE

Nicholas Grimshaw inflates British enthusiasm for space exploration in his new National Space Center.

By Catherine Slessor

Protruding provocatively above the Leicester skyline, the pneumatic tower of Britain's National Space Center is emblematic of the nation's infatuation with the heroism and technological prowess of the Space Age. With its roly-poly Michelin Man profile—formed from delicately transparent ethyltetrafluorethylene (ETFE) foil pillows—Nicholas Grimshaw's new building has a more obvious visual kinship with the organic fantasies of Saturday morning cartoons than the abstruse high-tech ambit of modern space exploration. But although Grimshaw is a romantic, enthralled by memories of Russian cosmonaut Yury Gagarin's first manned space flight, his pragmatic team sternly disavows any allusions to sci-fi pop culture. Housing bits of real rockets and assorted satellites, the spongy silo is the outcome of trying to simultaneously enclose and exhibit a series of bulky objects, using inflatable membrane cushions originally developed by the practice for the Eden Project in Cornwall.

In the race to seek out new life and to boldly go where no one has gone before, the UK has largely been a puny, earthbound bystander. Yet it still is a nation of trainspotters and buffs eager to admire the hardware and get hands on, so underlying the NSSC's stage-set gee-whizzery is the serious business of research and education. The combination of a research facility (part of Leicester University, which has a reputation for work on satellites and space exploration vehicles) and a publicly accessible exhibition center is a bold stroke, intended to stimulate general interest in space science.

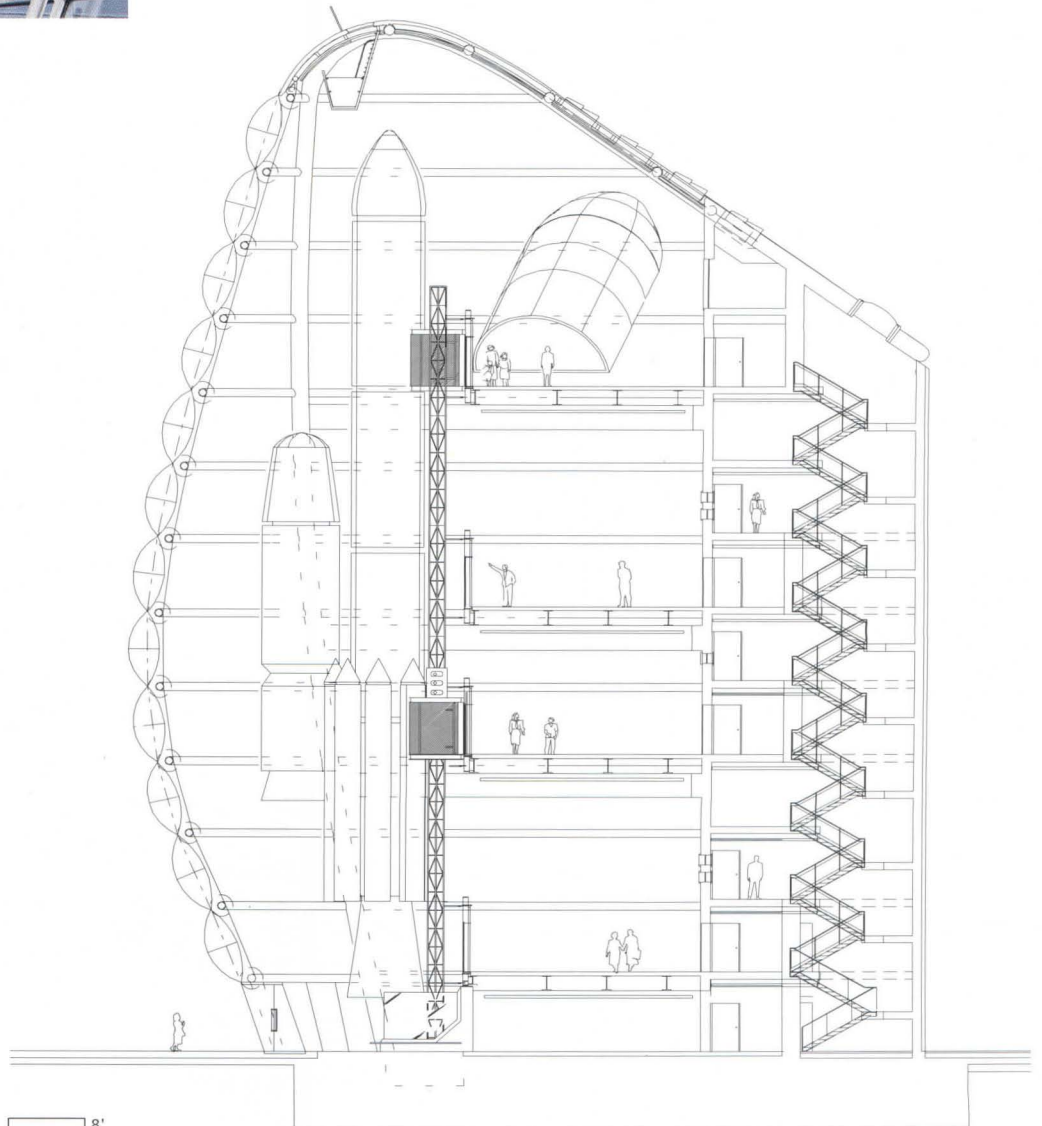
Even bolder is the choice of location, a derelict waterworks on the outskirts of Leicester, an unfashionable provincial town in England's East Midlands. The riverside site originally encompassed a massive storm-water tank that has been ingeniously recolonized to house an array of education, research, and display facilities, including a planetarium. The low, flat podium structure anchors the 125-foot-tall tower, supplying horizontal ballast to the balloonlike rocket silo. The main building echoes the form of the reservoir structure in which it sits, with a concrete roof supported on a grid of steel columns. A taut skin of perforated stainless steel panels forms the perimeter envelope. The modular regularity of the box is fractured by the geodesic dome of a planetarium erupting through the flat roof, which is in turn covered in a galactically inspired spiral of rooftop plantings.

Tower and roof also form part of the building's sophisticated environmental control strategy, which exploits the high thermal mass of the roof and rubble foundations. Because of its gravel top layer, the roof works as a heat sink, and the blimpish tower is passively cooled. Louvers at its base draw air in, which, when heated, can be released through vents at the top. Such techniques have wider applications beyond simply saving energy and resources; lessons learned here could be incorporated into future space settlements currently being developed by NASA, so the complex has a wider role as a research tool and prototype. Playfully seductive in form and compelling in content, this is a building that reaches for the stars. ■



The cocoonlike tower is fabricated from welded steel tubes attached to the concrete core. A synclastic (double-curved) secondary structure of hollow steel tubing forms intermediate ribs that support the cladding pillows, which are clamped into place. Overall stability is provided by the eccentric concrete core acting in torsion. Large exhibits can be moved in and out through demountable ribs at the front of the tower.

The lightness of the structure (glass would have been 10 times heavier) is made possible by a versatile new material called ethyltetrafluorethylene foil (ETFE). It was developed for use at the Eden Project in Cornwall, where spans of up to 36 feet were required, which is beyond the limits of a single sheet of glass. The light, transparent, flexible film forms triple membrane cushions, which are kept inflated by a constant low pressure from a vacuum cleaner-sized air pump. There are two pumps in the building, one of which is used on a daily basis, and the second during hurricane conditions: By increasing the air pressure inside the cushions, they become stronger and better able to withstand the wind. Formed and fitted on site, the ETFE cushions could easily adapt to geometric variations without the need for complicated scheduling or production planning. The foil is manufactured in 5-foot-wide rolls, which are then welded together. According to project architect Matt Eastwood, however, ETFE maintains strength at any length, but can't get much wider than 10 feet, and this dimension determined the size of the tower's horizontal bands. On the tower's northern side, the ETFE foil is fitted with a pattern on 10 percent of its surface, while that ratio increases to 70 percent on the southern side. The surprising delicacy and transparency of the tower allows its contents—including the U.S. satellite launch rocket Thor Abel—to be seen from the outside. Intermediate access decks allow close-up inspection of the space hardware and provide views back over the city.



Section through tower 8'



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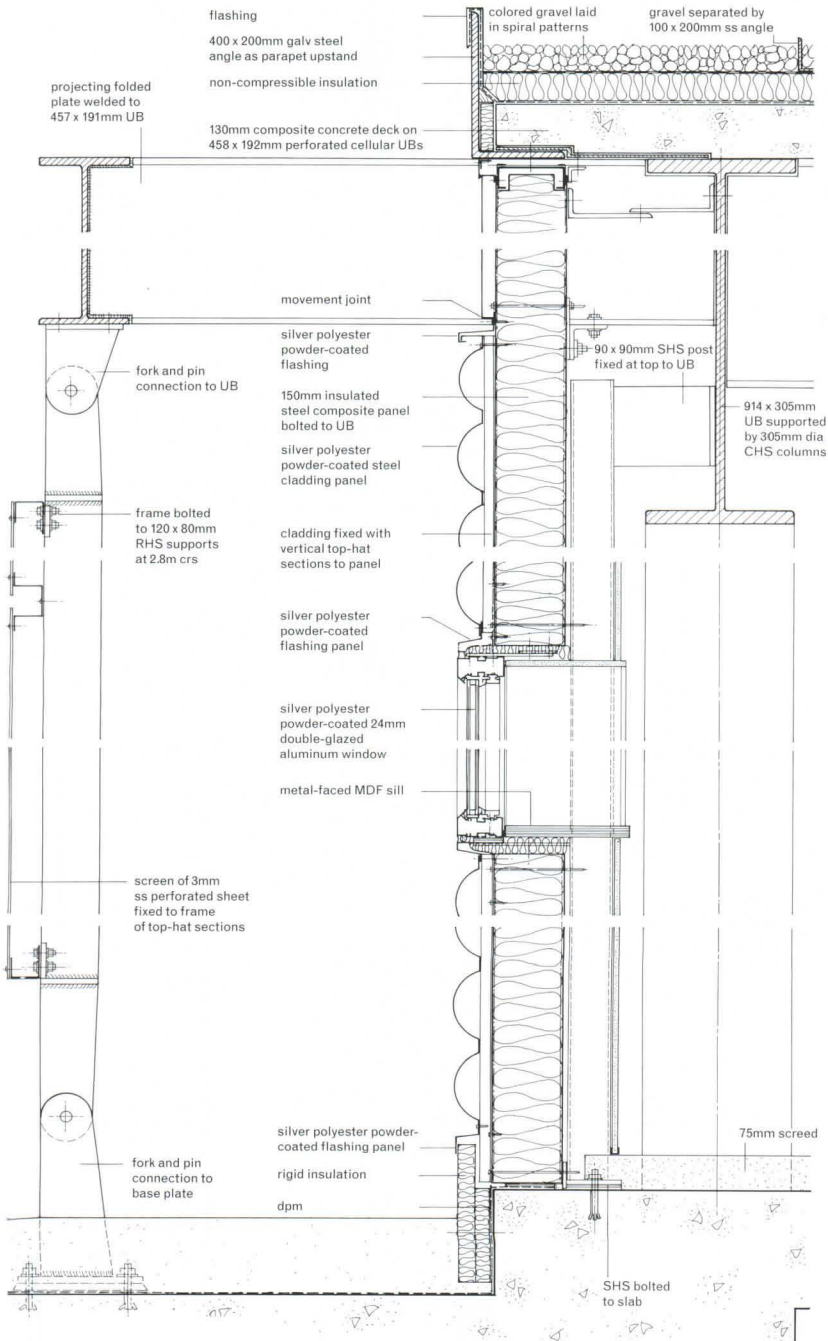
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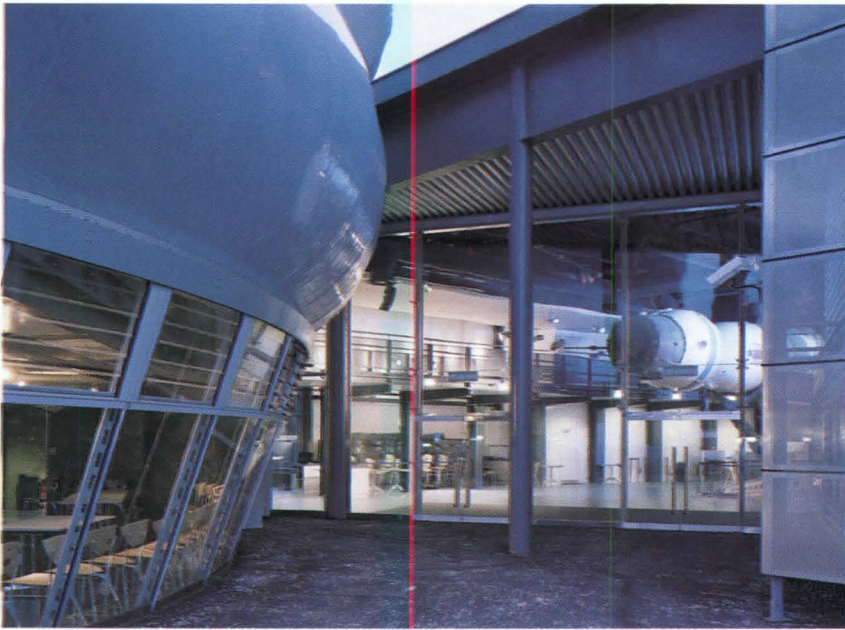


Attached to the tower is a two-story building housing education, display, and research facilities (facing page). The box is constructed on a 46-foot steel grid frame set on a concrete floor slab raised above the steel floor of the original storm-water tank. Services are integrated into the voids of the cellular beams, each of which has a dimension of almost 4 feet. An outer skin of 1/10-inch-thick perforated stainless steel panels forms a protective screen around the building, giving privacy by day, while allowing views out from offices and classrooms. Panels are supported by a steel frame tied back to the building at eaves made level by projecting plates. At night the steel mesh is lit from behind, forming a veil that dramatically transforms and dematerializes the mass of the building.

Separated from the outer mesh screen by a 3 1/2-foot gap, external walls are clad in sleek, silver sinusoidal cladding, interspersed with panels of aluminum-framed glazing. The horizontality of the cladding restates the long, low form of the building. The inner layer consists of story-high composite panels (6-inch-thick insulation faced on both sides with sheet steel) fixed to steel posts. As the large area of the flat roof is clearly visible from the tower, the architects created a spiralling design of differently colored gravel intended to evoke distant galaxies.



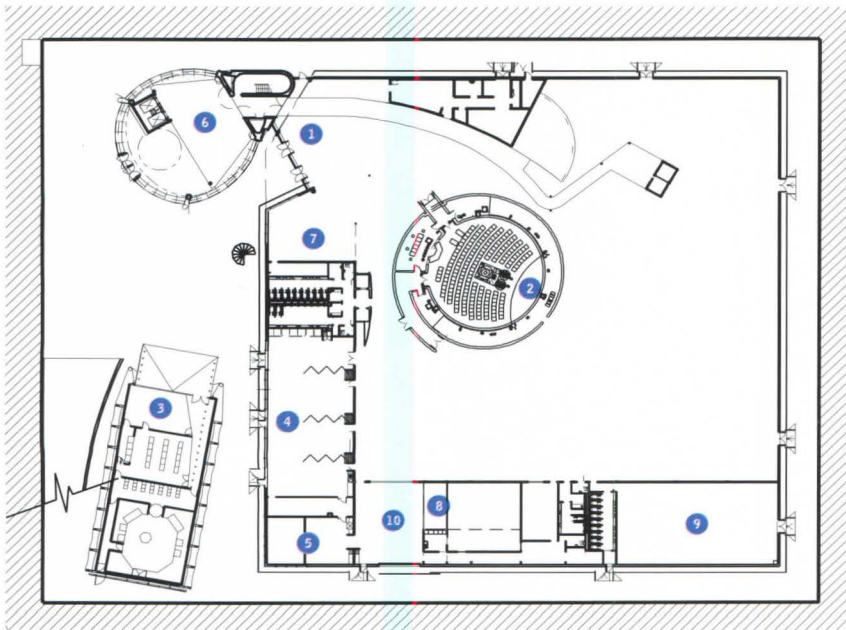
Detail section through screen and wall 1/6'



The tower housing the Thor Abel and Blue Streak rockets (facing page) emerges from the plinth-like structure housing museum exhibits (above).

NATIONAL SPACE CENTER, LEICESTER, ENGLAND

CLIENT: National Space Center, Leicester, England—Keith Beaumont (chief executive); Steve Liley (construction manager)
ARCHITECT: Nicholas Grimshaw & Partners, London—Christopher Nash (director); Stephen Ritchie (associate); Matt Eastman (project architect) **LANDSCAPE ARCHITECT:** Land Use Consultants
ENGINEERS: Arup (structural/mechanical/electrical); Sandy Brown Associates (acoustical) **CONSULTANTS:** Montresor Partnership (cladding); Locke Carey & Associates (fire); Gardiner Theobald Management Services (project manager); Haley Sharpe (exhibition design) **GENERAL CONTRACTOR:** Robert McAlpine **COST:** \$25.6 million **PHOTOGRAPHER:** Nathan Willock/VIEW



Ground-floor plan 29' ↙

- 1 entrance
- 2 planetarium
- 3 Challenger Center
- 4 classrooms
- 5 workshops
- 6 tower
- 7 museum store
- 8 satellite control room
- 9 plant room
- 10 loading bay



PGM 17
THOR





THE SHOCK OF THE FAMILIAR

What does a new Japanese
Buddhist university in
Southern California look like?
A Mediterranean hill town,
of course. By Dan Halpern



Soka's Student Center (bottom left and right) sits as a pivot point between the cluster of dormitory buildings and the classrooms. A bridge connecting the student center and the music building frames one of the campus's many small courtyards (right). The dormitories (preceding pages) overlook Wood Canyon, in Orange County, California.



Southern California is not, strictly speaking, known for its dedication to improving the world. It is known for its dedication to improving itself: for its peerless pursuit of greatness in the field of scarless breast augmentation; for Hollywood and avocados; for surfing and for Disneyland. Umberto Eco once called it a “paradise cut off from the world.” It is a place, he wrote, where “you are condemned to be happy.”

Improving the world, however, is just the goal to which the new Soka University of America, located about halfway between Los Angeles and San Diego in Orange County’s Aliso Viejo, has dedicated itself. Soka, which welcomed its first freshman class to a brand-new campus this fall, announces in its mission statement that its intent is “to foster a steady stream of global citizens committed to living a contributive life,” offering liberal arts degrees in three concentrations: humanities, international studies, and social and behavioral sciences. Founded by Daisaku Ikeda, the leader of Soka Gakkai, a Buddhist lay group founded in 1930 that has become Japan’s largest religious organization (and which provided the \$220 million construction budget and the \$300 million endowment), the university has a curriculum designed to provide a global, East-West educational perspective. Soka, which in Japanese means “to create value,” is “founded upon the Buddhist and universal principles of peace and the sanctity of life.” While many college freshmen, if asked to describe what they want to achieve in the next four years and after, might stare blankly or mention large amounts of money, the 120 first-year students at Soka seem to have read their school’s global mission statement, and believed it.

But driving up along the winding approach to the new university, which is perched on 103 acres above the Aliso and Wood Canyon Wilderness Park, Soka seems eminently isolated. Alone atop a hill, protected by the canyon, the spot suggests something much

less engaged with the world than its mission implies: It could be a workable site for a monastery, or a fortress, or a resort. (Its remoteness makes one wonder if achieving a pizza is going to be any easier for the students than achieving world peace.) The ascent to the university, as well as its mission, makes John Winthrop’s City on a Hill—the 17th-century Puritan ideal of the model God-fearing society as Winthrop, the first governor of Massachusetts, saw it—an almost obligatory association, but although Soka staff members bring it up, they are quick to qualify the comparison. “Winthrop was talking about Jerusalem, but Soka is not the new Israel,” says Alfred Balitzer, the university’s dean of faculty. Balitzer, who came to Soka from Claremont McKenna College, has clearly handled more than enough questions about the religious backing of the school. “Everyone is welcome,” he says patiently. “This is the new human university.”

And of course, it was designed to be. Norman Pfeiffer, of Hardy Holzman Pfeiffer Associates, and Steve Davis, of Summit Architects, were charged with creating an environment that would be at once self-contained and open, one that would make human contact easy, and importantly, one that could give a familiar look for an organization that has often been called “controversial,” “shadowy,” and a dangerous cult. Fourteen buildings have been completed. Drivers along the entry road are greeted by an artificial lake and, behind it to the left, Founders Hall (one of four Summit-designed buildings), intended to be the contact point between the university and the outside. (It includes the admissions and human resources offices.) Founders Hall is a properly formal, if proportionally somewhat awkward, university building, meant to evoke Italian Renaissance architecture; it clearly says “college,” not to mention “tradition, light, truth,” and so forth, employing time-honored forms to

create history for an institution without one.

The main loop road of the university, a little over a mile long, begins at Founders Hall and continues around the main campus, with parking outside the ring. This spine, Pfeiffer points out, keeps bending, unlike the linear axis of a more traditional campus design. The result is an amoeba-like plan with community spaces (the main green, the library, the student center, academic buildings) toward the front and more private programmatic elements (dormitories and guest residences) in the rear.

Yet, it is the community spaces designed by HHPA that comprise the nucleus of the cell and that are the most interesting and most central to Soka’s mission. With fewer classical references than Founders Hall or the rear buildings, they are clustered around a circular campus green. Building exteriors are all hand-troweled stucco, with Italian travertine (from the same quarry that provided the cladding for the Getty Center in Los Angeles). They are small by university standards, which lends them something of the quality of the “academic village” that Pfeiffer and Davis had in mind. Soka’s design has been characterized as an interpretation of a Tuscan hill town, but that is primarily in the clustered plan. The architecture is less specific: Like the University of California at Los Angeles and the University of Southern California, Soka’s central campus employs a mix-and-match Mediterranean vocabulary—red tile roofs, Mission archways, and plenty of stucco—the sort of admixture that refers to many possible precedents without quite following any one in particular.

Soka’s central outdoor space, bounded by the library, student center, and academic halls, feels simultaneously enclosed and open, with airy breezeways and a high wall of windows on the first floor of the student center. It is the kind of place where students have always gone, hoping to bump into that crush from philosophy seminar who supposedly can explain

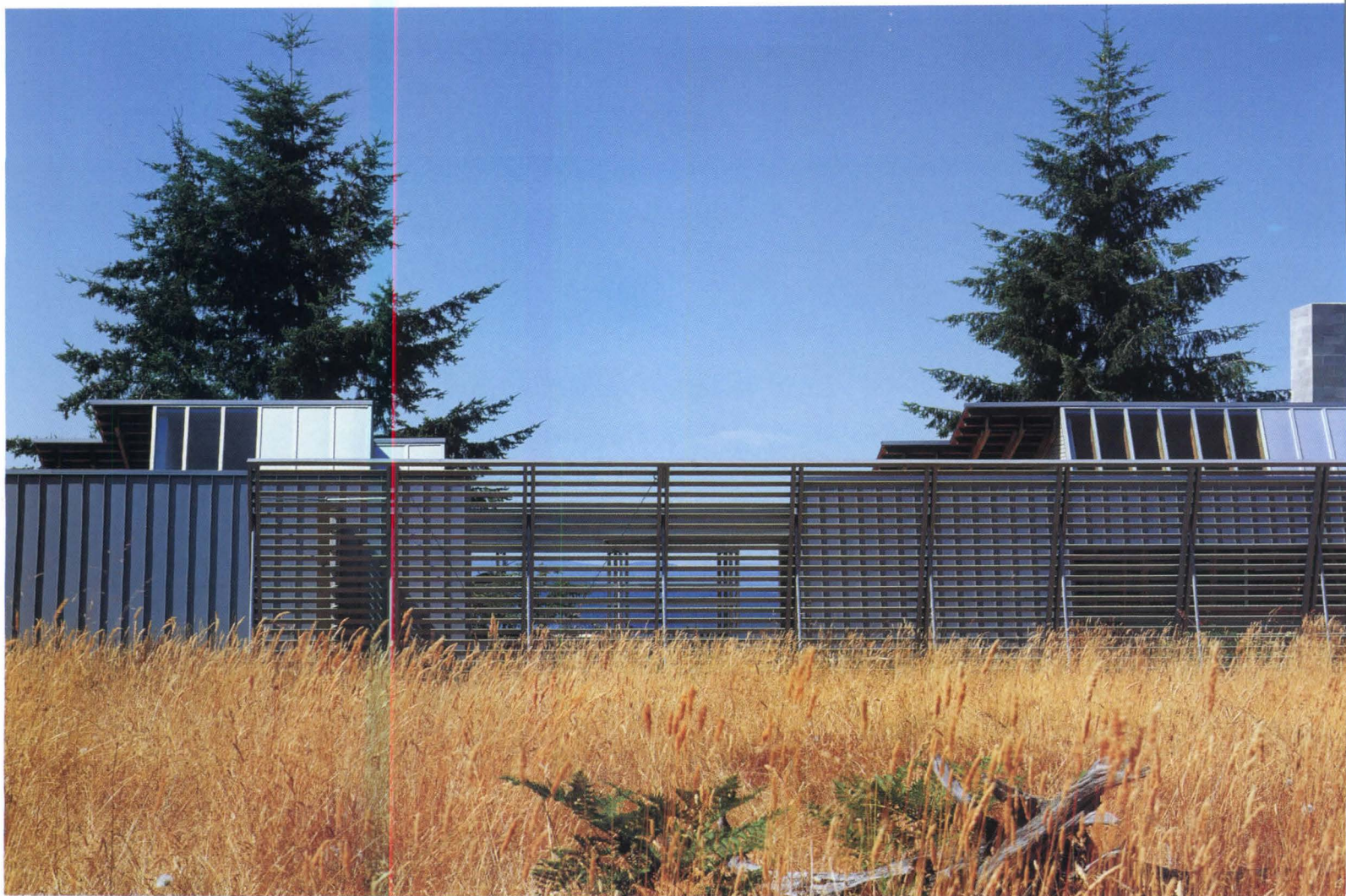
THE CAMPUS ARCHITECTS WERE INSTRUCTED TO INCORPORATE NO DISCERNIBLE JAPANESE OR EASTERN INFLUENCE INTO THE DESIGN, AND TO FIND A STYLE THAT WOULD BE FAMILIAR TO AMERICANS.



A NOT-SO-PRIMITIVE HUT

For a virgin site in the Pacific Northwest, Patkau Architects create an architecture of natural complexity. By Adele Freedman





That great architecture needs great clients is a truism, but it doesn't alter the fact that discerning architects tend to attract like-minded clients. Whatever it takes for the two to tango is in evidence in a lively new residence in the Pacific Northwest designed by John and Patricia Patkau, the Canadian duo based in Vancouver. Everything about the process engaged the imaginations of owners William and Karin Agosta, Manhattanites who had lived in the same 1,200-square-foot Greenwich Village apartment for 30 years. When their children were grown and they'd both retired, "it was time to do something different," Karin says. "We wanted space, and a project."

The Agostas were on a mission kindled by the helter-skelter development that had turned the South Shore of Massachusetts, her birthplace, into a soulless sprawl. "That pushed us in the direction of preservation," she says. Ultimately it pushed them about as far from the din and density of Manhattan as it gets—to San Juan Island, Washington, where in 1990 they were smitten by the beauty of a

43-acre lot, half forest, half meadow. Their first go at activism after buying it was to donate 10 acres to the San Juan Preservation Trust, where an easement decrees this parcel-within-a-parcel will remain wild in perpetuity. By 1995, they were on the hunt for an architectural firm in sympathy with their personal needs and environmental aspirations. Their house was to be unassuming, low-maintenance, of "simple but true materials"—and wouldn't leave them feeling like they lived in a box.

Touring some of Patkau Architects' work in British Columbia as a prelude to signing on, the Agostas were especially impressed by Seabird Island School, a swooping, zoomorphic, wood-framed structure bearing all the hallmarks of the office's approach. More than handsome objects, their designs are conceived as conduits for the reciprocal flow of energy between a building and its surroundings. Karin Agosta was also drawn by the firm's architectural expression of a social ethic. "The Patkaus built a model showing every joint so local people could do the construction them-

selves," she says. "I thought that was terrific. Architects who would undertake that kind of project were bound to be interesting, energetic, and have good sensibilities."

The upshot of their encounter was a process with continuous give-and-take—and 2,700 square feet of spatial verve.

The Agosta House shimmers into view as the dirt road winding through the forest arrives at the gently elevated edge of the meadow. From the front it looks to be an elongated, silvered shed, thanks to the sloped roof and galvanized sheet-steel cladding, a practical hedge against wind, rain, and fire. A 12-foot-tall trellised fence of gray cedar projecting from part of the façade adds another layer of discretion, but is actually there to protect Karin Agosta's south-facing herbs and perennials from deer on the lookout for snacks.

Stretching across the ridge of the meadow, the residence gives no inkling of the majestic West Coast panorama it overlooks at the back—tall grasses and picturesque fields that slope steadily downward to merge into a vista



Patkau Architects new 2,700-square-foot house on San Juan Island, Washington (preceding pages), sits at the edge of a Douglas fir forest. It overlooks acres of meadow and the Canadian Gulf Islands (below). Sloping walls of galvanized steel (above) help protect the house against forest fires, while a cedar fence (facing page) keeps another environmental hazard—hungry deer—out of the garden.





The house's simple linear plan is modulated by inserting an outdoor room (above left and right) between the master bedroom and living room. The main living area (facing page, both photos) is almost entirely glazed to take advantage of the meadow views.

of Haro Strait and the Canadian Gulf Islands beyond. The subtlety with which this landscape is revealed from inside belies the building's straightforward linear plan: Interconnected living and dining areas, kitchen, pantry, and mudroom occupy the center, bracketed by the master suite at one end and a detached office (for William Agosta, who writes popular books on organic chemistry) and guest quarters at the other. But this is no boring enfilade.

The starting point of the design was a section cued to the topography: sloping walls on one long side and battered walls on the other where the meadow starts to fall away. Extruded for 120 feet, this section shaped the body of the building, laid on a radiant-heated concrete slab. The next step, conceptually speaking, was to "erode" the extrusion by cut-

ting out a courtyard between the living room and master bedroom, and by creating a patio on the meadow side of the breezeway that leads to the office.

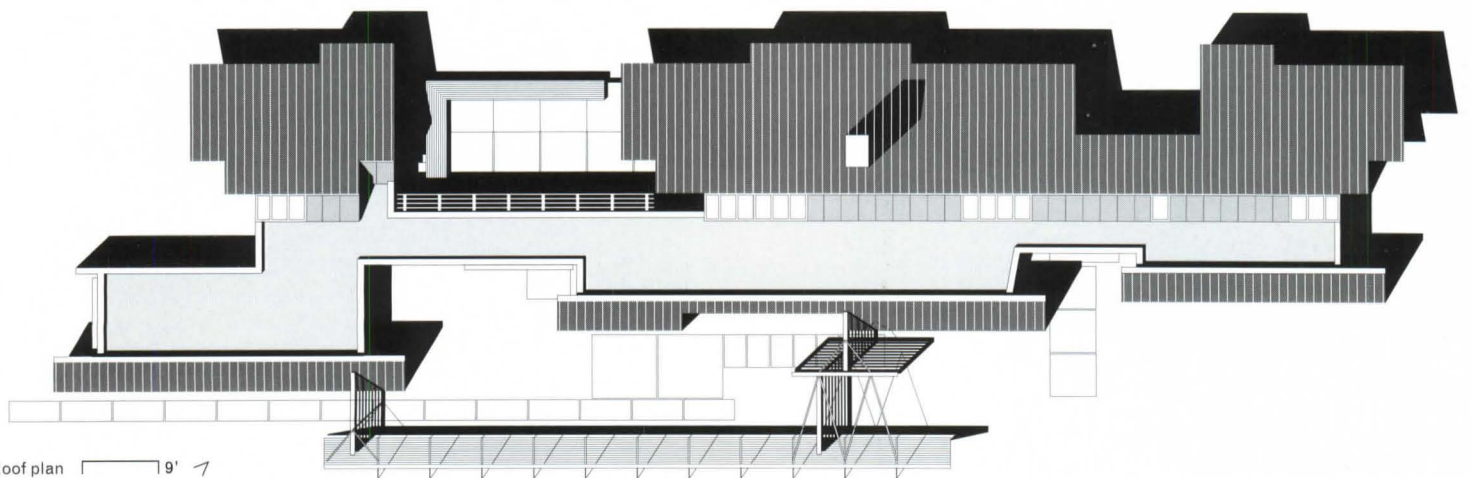
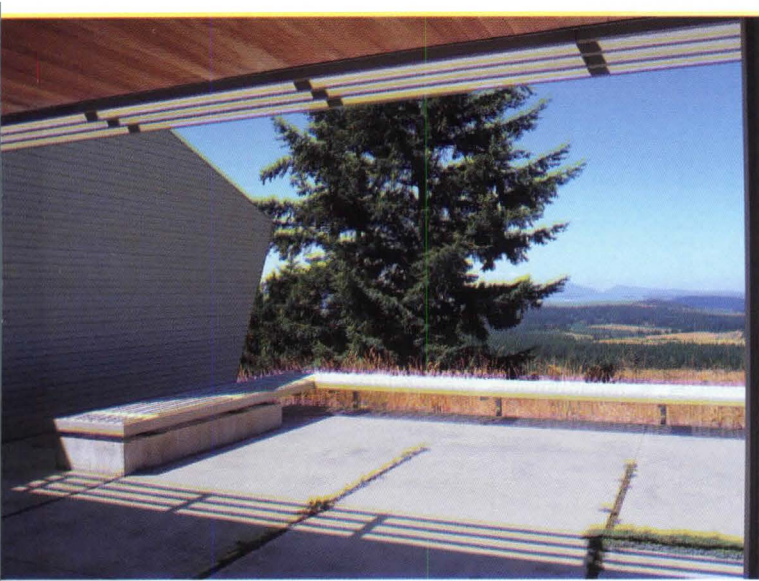
Every formal move has emotive value. The spacing of the erosions lends character and definition to each of the three main zones; separating the office from the rest of the house dignifies and supports William Agosta's lifelong habits: "John said I had to leave home to go to the office—"You're going to walk now!"—because I've never worked at home before."

Subtraction was followed by addition. Three cedar-sided bulkheads (containing the mechanicals) were inserted into the wedge-shaped spaces traced by the inclined ceilings, one per zone; their light-studded soffits of white-painted, light-bouncing gypsum board, none alike, afford a sense of intimacy and enclosure, particularly in the central area where the fir ceiling is dramatically pitched and its heavy timbers exposed. Intriguing and muscular objects, the bulkheads help complicate and redirect the linear flow of space. The

same applies to the sharp turns in the east-west spine that divides kitchen from dining room, bathrooms from bedroom. By stepping the master suite back from the central zone and pulling the office forward, the architects answered another summons to enriched simplicity—and gave the office a prized view of Sugarloaf Mountain.

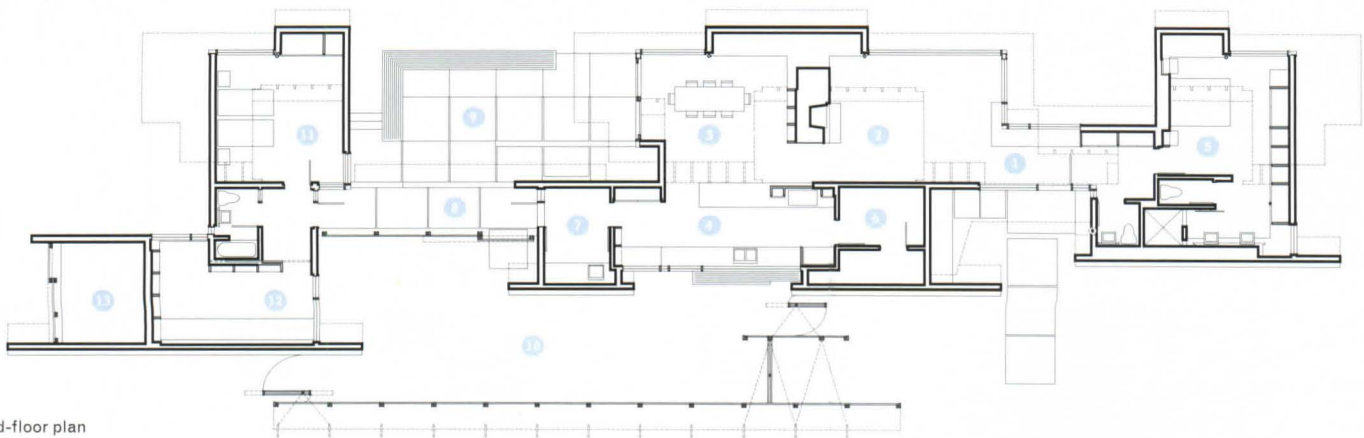
No baseboards, no gewgaws of any kind: "We'd always lived like graduate students—we wanted to start getting rid of stuff, not accumulate," says Karin Agosta, preferring pleasures that are of the nonmaterial kind, like watching the deer from her built-in desk in the kitchen, or reading in her special nook in "the master's office." No longer a client, she's become a cheerleader. "I'm connected to the people who did the work," she says. "I'm connected to the Patkaus. I wish people would understand what working with architects is about—a dynamic, living relationship." ■

Adele Freedman is a freelance, Seattle-based architecture critic.

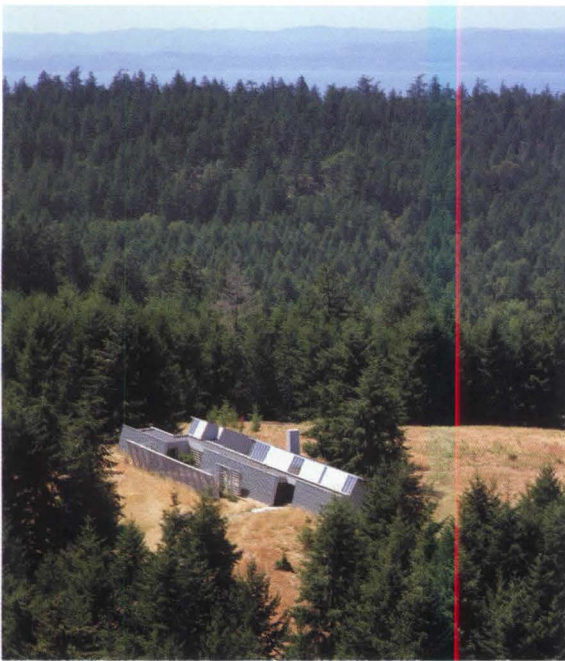


Roof plan 19' ↗

- 1 entry
- 2 living room
- 3 dining room
- 4 kitchen
- 5 master bedroom
- 6 storage/mechanical
- 7 mudroom
- 8 covered walkway
- 9 terrace
- 10 fenced garden
- 11 guest room
- 12 studio
- 13 garden shed



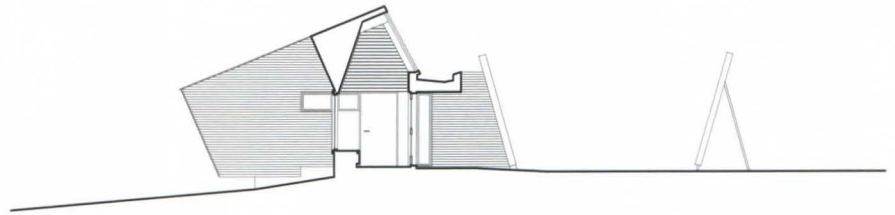
Ground-floor plan



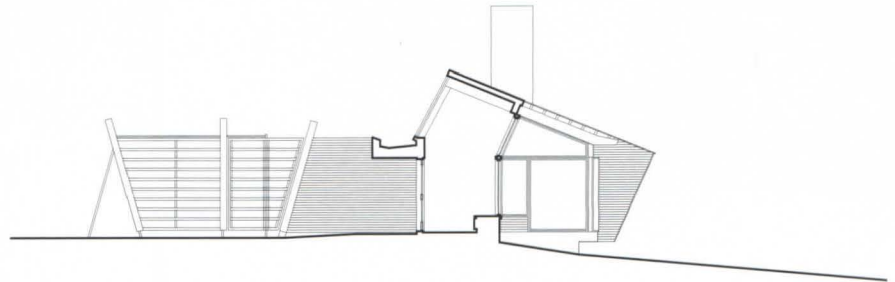
The Agosta house sits in a meadow on a 43-acre woodland site on San Juan Island, Washington, 10 acres of which have been deeded as a nature preserve. The section of the house responds to topography: Walls tip toward the slope of the meadow.

AGOSTA HOUSE, SAN JUAN ISLAND, WASHINGTON

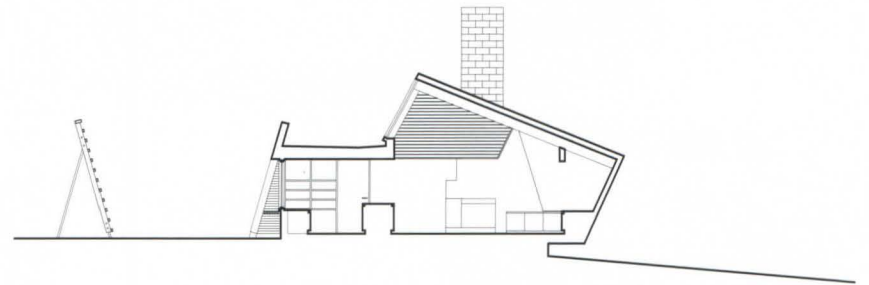
CLIENT: William and Karin Agosta, San Juan Island, Washington
ARCHITECT: Patkau Architects, Vancouver, Canada—John Patkau, Patricia Patkau, David Shone
ENGINEERS: Fast + Epp Structural Engineers (structural)
GENERAL CONTRACTOR: Ravenhill Construction
COST: Withheld at owner's request
PHOTOGRAPHER: James Dow



Section at entry looking northeast



Section at entry looking southwest



Section at living room/kitchen looking southwest



Section at terrace looking northeast



Section at terrace looking southwest 7'



ANDO IN ST. LOUIS



THIS IS WHAT HAPPENS WHEN A JAPANESE
MASTER COMES TO A TROUBLED U.S. INNER CITY.
BY NED CRAMER



At a lecture during the opening weekend of the Pulitzer Foundation for the Arts in St. Louis, the building's architect, Tadao Ando, showed an aerial photograph of Osaka, Japan, taken after World War II. There was nothing to see—painfully so—just unending piles of rubble and the lone skeleton of a building in the distance. The image drew sympathetic gasps from the audience, for this, Ando had already told them, was the city where he was born (in 1941), and now lives and works. There was also a clear tone of empathy in the crowd's response: The image was eerily reminiscent of the still-smoking wreckage of the World Trade Center, attacked only the month before.

The picture may have also hit even closer to home, as a reminder of another lost work by Japanese-American architect Minoru Yamasaki, the Pruitt-Igoe housing project, the most forceful symbol of St. Louis's self-

inflicted ruin. "Blow it up! Blow it up!" enraged tenants chanted at a 1971 meeting with their city landlords, who took them at their word and dynamited much of the dangerously unlivable complex the next year. Postmodernists celebrated the act as the deathblow to modernism. Locally, it signaled not only the undoing of St. Louis's sweeping urban-renewal policy but also the general decline of the city proper.

A few pioneering developers are finally returning to the city from the suburbs, converting warehouse space along Washington Street into nightclubs and loft apartments and renovating workers' row houses near the Anheuser-Busch brewery for adventuresome young professionals. The art scene, for its part, has settled on a roughly 10-block area in midtown that is struggling to live up to the name of its principal thoroughfare, Grand

Street. For decades the neglected strip—once called, with some hyperbole, "the Broadway of the Midwest"—survived a sustained attack of wrecking balls thanks to the life-support of tenacious local institutions like Powell Symphony Hall and the Jesuit St. Louis University.

Into this setting, a half-block off Grand Street, Ando has dropped the closed concrete mass of the Pulitzer Foundation, like a *machina ex deo* on which he has bestowed strange powers of aesthetic redemption. "A place of possibility," the architect has named his first public work in the United States, presumably not only for its own doubtless merits but for the superb modern art collection it contains: the personal property of foundation president Emily Rauh Pulitzer and her husband, the late Joseph Pulitzer, Jr. (a member of the newspaper-publishing family that owns



The Pulitzer Foundation for the Arts is Tadao Ando's first public building in the United States, a cloisterlike enclave organized around a water-filled courtyard (facing page). The southern edge of the pool and the parallel concrete walls of the flanking wings frame an incidental view of the city beyond in the traditional Japanese technique of "borrowed scenery" (below). A sculpture garden lies to the west of the building (preceding pages, left), surrounded by walls of Ando's signature concrete. An alley along the building's eastern flank leads towards Grand Street, midtown St. Louis's principal thoroughfare, and a 23-story art deco tower that is being renovated into apartments.

- 1 gallery
- 2 office
- 3 courtyard
- 4 terrace
- 5 mechanical



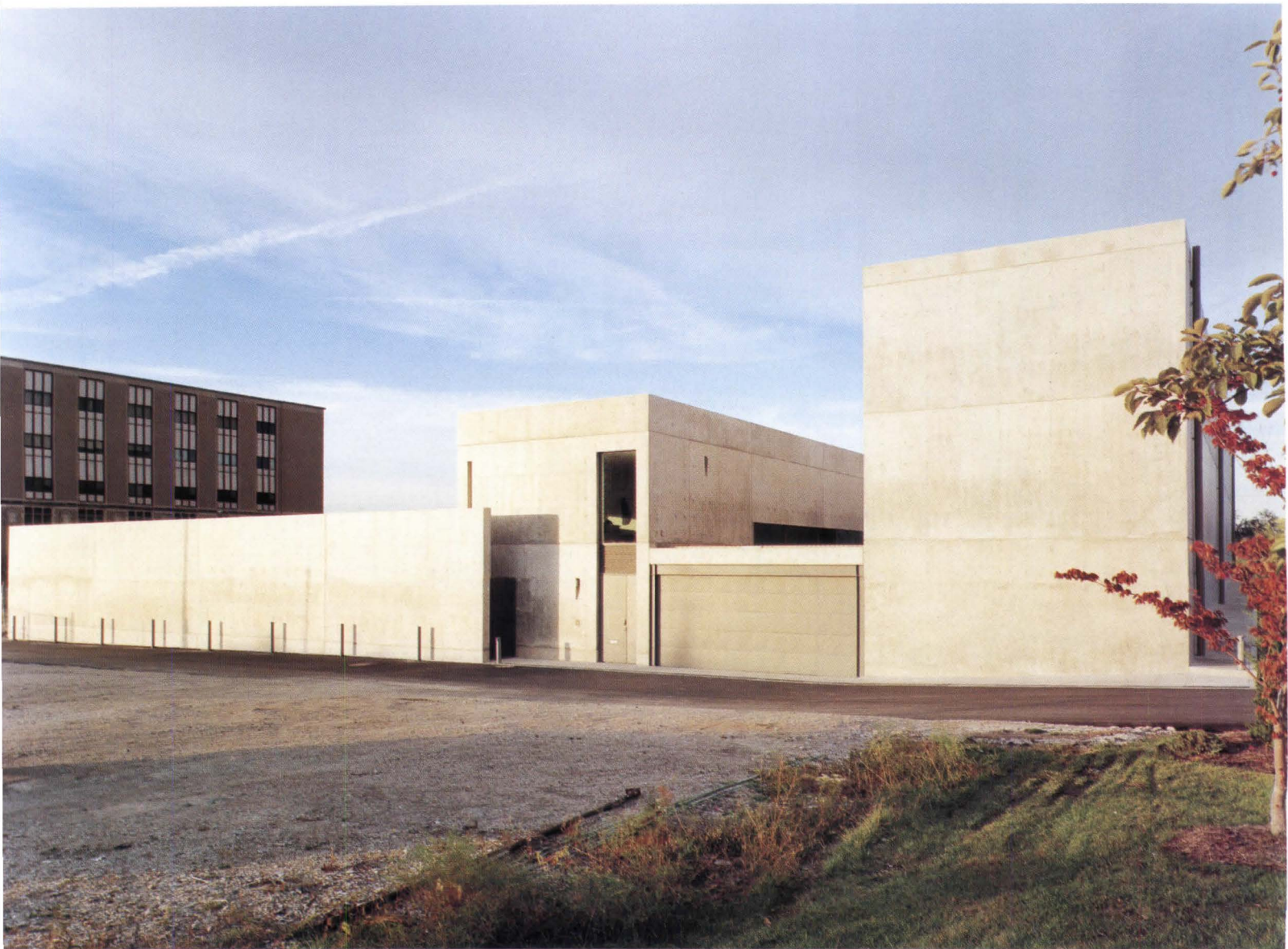
West-east section 8'





The entrance façade (below) looks north onto a vacant lot. A canopy cantilevered off a single column shelters a terrace above the lobby; the taller block contains galleries. In the distance is the 14-story neoclassical Masonic Temple of 1924 (below, at left). The entrance to the foundation is hidden behind a concrete wall (left); the metal gates are mounted so that when open, they fit flush into niches in the walls on either side. Slit windows in the office wing overlook the sculpture court (facing page, top), which the foundation will eventually share with architect Brad Cloepfil's Forum for Contemporary Art building under construction next door. The wall surrounding the court wraps around the edge of the building's southern façade (facing page, bottom); a garage sits under the pool in the central court.







A full-height window overlooks the central pool in the space connecting the gallery and office wings (below). A cantilevered stair leads to a second-floor seating area directly above the lobby (below, at center) and to a rooftop terrace beyond (left).



the *St. Louis Post-Dispatch*). Mrs. Pulitzer has commissioned two permanent installations for the building, by Ellsworth Kelly and Richard Serra. Together with the building they form an environment perfectly cohesive in its modernism, and born of John Ruskin's earnest early-modernist faith in the inherent moral good of construction materials and their plainspoken assemblage, the elimination of unnecessary ornament, and other such rigors.

Ando's signature concrete walls, polished to the point of near reflectivity, rise continuously from a basement that becomes a plinth as the foundation's block-deep site slopes down to the south. On the main, north façade, the entrance is hidden behind a freestanding wall and the only visible sign of life, according to the Western identification of transparency with openness, is a glazed rooftop lookout. St. Louisans born and bred in fear of Pruitt-Igoe's abstract wrath may struggle with such unforgiving austerity.

According to historian Kenneth Frampton, Ando actually co-opts methods of modernism with the intention of correcting its mistakes, like a kind of architectural reformationist. His closed concrete architecture is more specifically an indigenous reaction to the chaos of postwar Japanese urbanism, and to the incapacity of the supposedly international style of midcentury modernism to cope with the situation.

The rectangular boards of formwork into which concrete is poured during construction leave a barely visible horizontal grid of seams in the finished walls of Ando's buildings (3 feet by 6 feet in his Japanese projects; the Pulitzer Foundation conforms to the American 4-by-8-foot standard). The lines provide an underlying geometric order, like an upright version of the tatami floor-mat configurations that determine the dimensions of rooms in old Japanese houses. To Ando, his concrete walls are also an opaque equivalent of the translucent rice-paper shoji screens that delicately subdivide such houses; as blank receptors of light and frames for the natural world, he believes, both approach the Japanese conceptual ideal of *ma*, or nothingness.

"Like a fortress built in the desert," Ando has written, "a wall is not only a protective barrier but a spiritual bridgehead, clearly asserting its presence in the changing flow of the city and rejecting any preconceived notion of community." Ando's meaning runs the risk of getting confused in translation from Osaka to St. Louis—not just as a problem of architectural language, but as one of culture. I suspect that tatami mats and shoji

screens will mean little to the foundation's largely American and local audience, and the conception of nothingness, nothing at all. Whether St. Louis is a desert and the foundation a fortress is more a matter of opinion, as are the underlying implications and merits of both analogies. The latter might seem to apply in light of the fact that Mrs. Pulitzer has regrettably made the building open to the public just two days a week, but her other policy of admission—by appointment only—is incontestable: The building was not made for clamor. Indeed, in calling the foundation building "a place of possibility," Ando also gave an admonition: "Those who believe in possibility stay long enough to perceive it." In other words, a drop-in won't suffice.

Experience overrides any ideology, and if Ando's desert-fortress conception discourages that belief in possibility, instead think of the foundation as a monastery, a gentler and no less serviceable analogy supported by the architect's aesthetics of asceticism as well as by the building's plan: The principal floor is arranged as a U, a three-sided cloister around a rectangular courtyard that is open on its south side and filled with a shallow, stone-bottomed pool. There's an entrance court, lobby, and double-height hall with a stair to the lookout in a hairpin sequence at the bottom of the U; galleries in the left, eastern leg; and to the west, along a corridor, offices, lavatories, and a library.

The gallery wing is largely devoted to a single, plaster-faced room, 170 feet long, with a broad stair at the far end that leads down to a lower floor level and a small square basement gallery beyond. A balcony walkway on one side of the stair leads to a second small gallery above the one in the basement. The walkway creates an asymmetry within the big gallery that Ellsworth Kelly's permanent installation counterbalances. Projecting from the far wall, slightly off center, are his two thin, vertically stacked panels of aluminum, the one on the top spray-painted blue and the one on the bottom black. The large gallery is nothing if not a nave, with descent, rather than ascent, providing climax at its end. Kelly's artwork, then, might serve as the altarpiece, but proportioned cross-culturally like a Japanese scroll.

True to himself, and to the sacral character of the building, Ando provides views that are inward-looking: Ribbon windows, one on each long side of the courtyard, face the water. A slit window in Mrs. Pulitzer's office at the end of the west wing gives a grazing view of the top of Richard Serra's rusted-steel *Tilted Spiral* (titled *Joe* in memory of Mr. Pulitzer)

in a stepped sculpture garden farther east, which the Pulitzer Foundation plans to share with architect Brad Cloepfil's Forum for Contemporary Art under construction next door (this issue, page 26). From the lookout, the parallel arrangement of freestanding concrete walls in the garden below recall the Japanese painterly convention of *fukinuki-yatai*, literally meaning "stage with the roof blown off," which allows an omniscient perspective on interior rooms. The city beyond appears only at a remove, as it does from within the garden walls. "It is not," wagged one visitor, "a site-specific building."

For a serious exercise in the site-nonspecific he should try walking through Serra's spiraling *Joe*, where only an arc of sky is visible beyond a continuous high plate of rusted steel that cants and curves with a powerfully disorienting effect. It's the very opposite of Ando's extreme aesthetic order, though achieved with similarly limited means. Yet Ando too admits a hint of the uncontrollable into the otherwise perfect world of the Pulitzer Foundation. As seen from the glass-walled, double-height hall between the office and gallery wings, the pool in the long central court seems at the open south end to drop into nowhere; its watery surface and the concrete walls on either side conversely target the cityscape beyond like a gunner's sights, bringing the image compellingly close.

Frampton has written concisely of this, Ando's principal method of incorporating landscape: "The blank concrete walls that have become the hallmark of his style are used to integrate monumental public buildings with their immediate surroundings and, at the same time, to extend the foreground into the distance, using the traditional Japanese device of *shakkei*, or 'borrowed scenery.'" What Ando borrows for the Pulitzer Foundation's central courtyard, an incidental cluster of new and old buildings, deviates from his typical definition of scenery as mountains, forests, or oceans—in an affirmation, perhaps, of St. Louis's capacity for self-improvement, and a reminder as well of its past self-destructiveness. The subject may be different, but the effect is the same: "Contrasting elements meet with startling results," Ando has written, "and in these results, architectural expression is born that is capable of moving the human spirit and allows us to glimpse the eternal within the moment." Mrs. Pulitzer mentions planting a stand of trees on a lot across the street. The current view, I think, is better. Cities, like mountains, perform their own slow litany of change over time. ■



THE PULITZER FOUNDATION FOR THE ARTS, ST. LOUIS

CLIENT: The Pulitzer Foundation for the Arts, St. Louis—Emily Rauh Pulitzer (founder and president)

ARCHITECT: Tadao Ando Architect, Osaka, Japan—Tadao Ando (design principal); Masataka Yano

ARCHITECT OF RECORD: Christner, St. Louis—Daniel Jay (principal-in-charge); William Wischmeyer (project manager); James Cartwright (project architect); Karl Gruenewald, Yume Rudinski, Bryan Loving (design team)

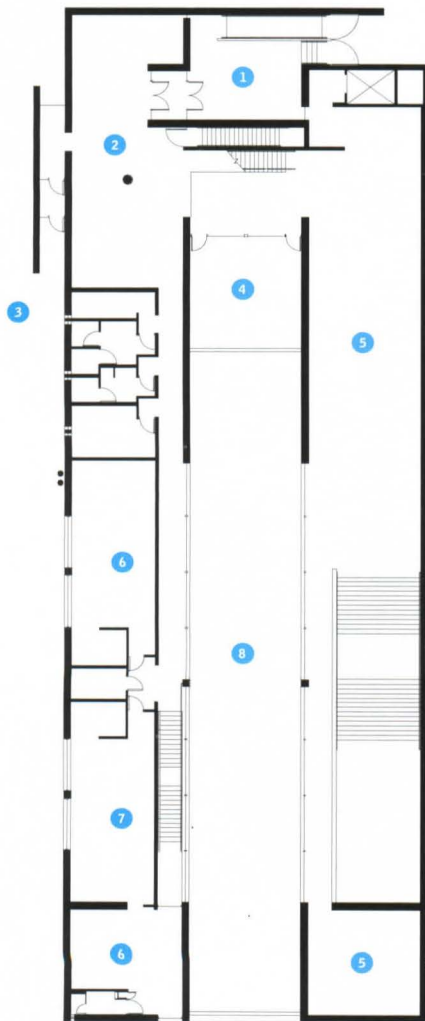
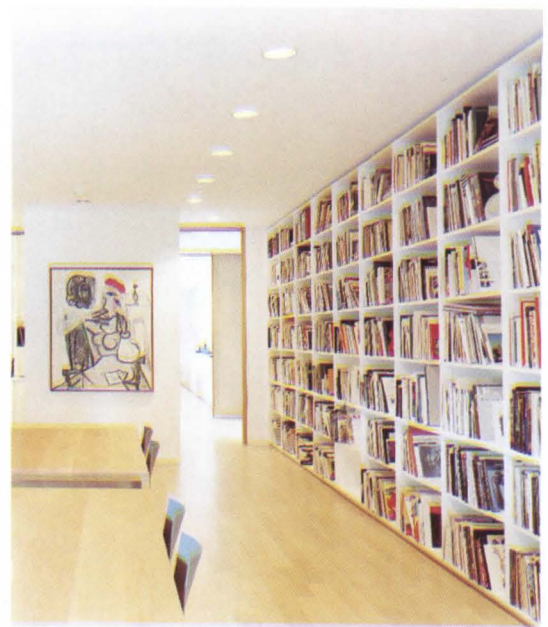
ENGINEERS: ABS Consulting's EQE Structural Engineering Division (structural); Clark, Richardson & Biskup, St. Louis (mechanical/electrical); Kuhlman Design Group (civil); Ove, Arup & Partners International, with Clark, Richardson & Biskup

CONSULTANTS: Randy Burkett (lighting); Lynn Fylak (signage); Clarkson Consulting (construction manager)

GENERAL CONTRACTOR: BSI Contractors **COST:** Withheld at owner's request **PHOTOGRAPHER:** Victoria Sambunaris



A corridor along the west office wing (right) opens onto the foundation library (far right). The principal gallery, 170 feet long, (facing page, top) ends in a monumental staircase and a site-specific installation by the artist Ellsworth Kelly (facing page, bottom). Ando illuminates it with a hidden skylight directly above—a trick Bernini patented with his *Ecstasy of St. Teresa* in the Coronaro Chapel at Rome's Santa Maria della Vittoria. Another permanent installation is Richard Serra's *Tilted Spiral* in the sculpture court (following pages), seen here from the planted roof of the office wing.



First-floor plan 15' ^



Second-floor plan

- 1 entrance court
- 2 lobby
- 3 sculpture garden
- 4 terrace
- 5 gallery
- 6 office
- 7 library
- 8 pool





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| RS# | 185 | AIGA (Western region)/p.42 |
| | 199 | Andersen Windows/p.8-9 |
| | 52 | Architectural Area Lighting/ p.30-31 |
| | 1 | Armstrong World Industries/ Cover 2-page 1 |
| | 63 | Armstrong World Industries/p.2-3 |
| | 213 | Bartco Lighting/p.32 |
| | 26 | Belden Brick (East, Midwest region)/p.42 |
| | 194 | Bentley Systems/Cover 4 |
| | 212 | Bruck Lighting/p.29 |
| | 210 | Compaq Computer/Cover3 |
| | 70 | Copper Development/p.41 |
| | 22 | EFCO/p.18 |
| | 172 | Ellison Bronze/p.22-23 |
| | - | GlobalShop/p.34 |
| | 181 | Masland Contract/p.12-13 |
| | 215 | Master Lighting Classes/p.96 |
| | 30 | NALSA/p.100 |
| | 3 | Nixalite/p.6 |
| | 77 | Pemko/p.102 |
| | 29 | Portland Cement/p.16 |
| | 90 | Rohm + Hass/ Print Quality Institute/p.98 |
| | 208 | Sharp Electronics/p.10-11 |
| | 10 | Sony Electronics/p.14 |
| | 214 | SPI Lighting Group/p.33 |
| | - | Syracuse University/p.98 |
| | - | USG/p.50 |
| | 76 | Vanceva by Solutia/p.25 |
| | 60 | Westcrowns Inc./p.47 |
| | 176 | www.toyota.com/tomorrow p.7 |

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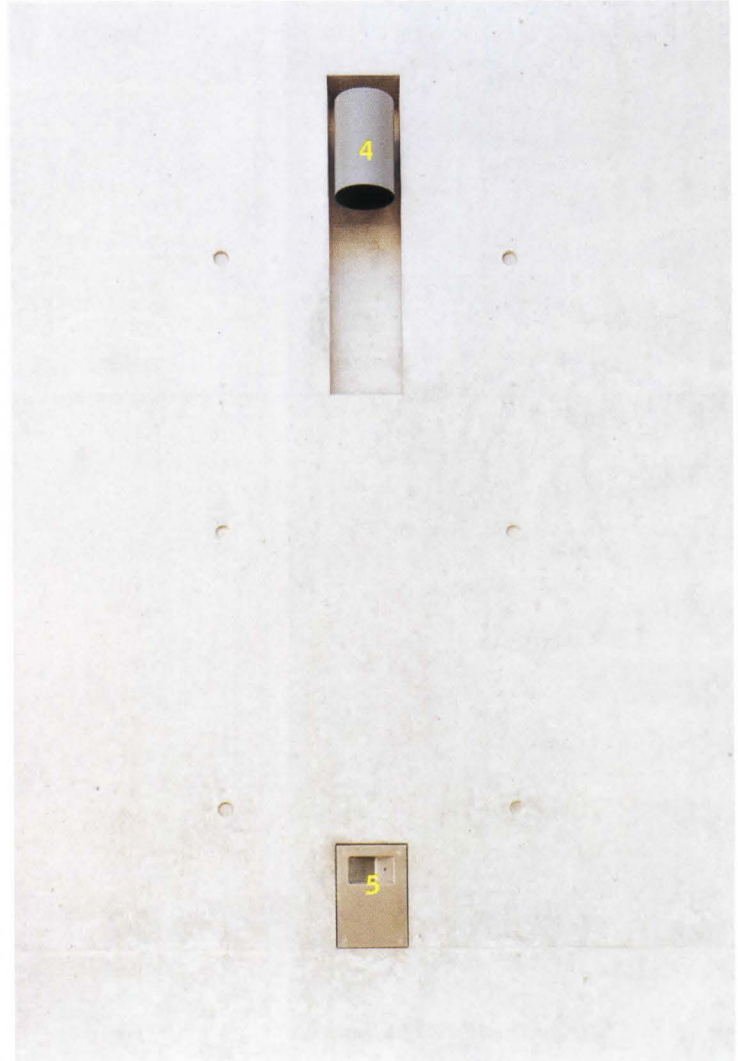
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The Pulitzer Foundation for the Arts

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Zen is in the Details

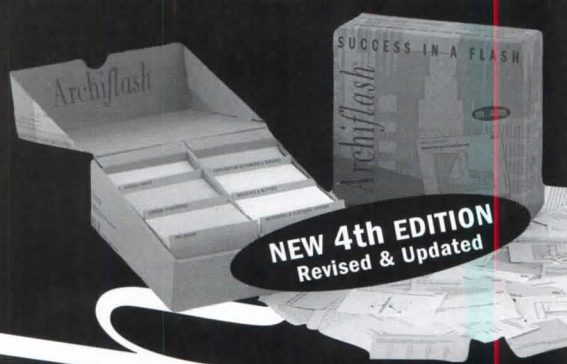
“Ando is after a contemplative experience,” says Bill Wischmeyer, of Christner, the architect-of-record for the Pulitzer Foundation for the Arts in St. Louis. “So the goal was to eliminate as much visual noise as possible.”

The 4-by-8-foot formwork for the poured concrete walls, with eight ties spaced exactly 2 feet on center, provided a geometric module that guided decision making throughout the building. The tie holes, some of which are unnecessary in the formwork and serve only as placeholders, make a grid across the planes of Five Star poured concrete, made smooth by Finnform plastic form liners. The Bega recessed lighting on the exterior (above right) is centered between the points on the grid, and the bottom of the cavity falls on the line created by the formwork. The fire safety strobe in the lobby, which Ando cast in the concrete wall to make its casing flush with the wall, is placed to be similarly responsive to the grid. Still, the serene order of the building persists as Ando’s greatest concern, rather than the integrity of the geometric module itself. “He’s willing to bend his own rules to preserve visual order,” says Wischmeyer. For instance, the slot into which the exterior fixtures are recessed have an arbitrary height, which was determined by Ando’s eye rather than corresponding with any geometry.

HIGHLIGHTED PRODUCTS

- 1 Custom Railing—A. Zahner
- 2 Doors—Custom Fabricators
- 3 Window System—Wasau
- 4 Light Fixture—Bega
- 5 Security Device with Custom Plate—ADT

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protest



Preservationists argue that the sight of the gently curving TWA terminal against the sky, seen here in a 1962 photograph by Ezra Stoller, would be lost.

Pro continued from page 104

aviation, the terminal is a disheveled and inadequate ward of the state, an orphaned, empty symbol.

The PA's plan to build a new, crescent-shaped terminal with a decommissioned Saarinen building at its focal point is the best way to preserve the modern icon. A retrofit to account for the demands of security, circulation, and baggage service would be impossible without a dramatic reconstruction that would hopelessly compromise Saarinen's building. Opponents of the plan argue that a change in function will "strangle" the terminal—Philip Johnson has suggested it be razed before it be repurposed. Following this logic, we should bounce every last artist from the lofts of SoHo.

The plan is far from perfect. As it stands, the new terminal would be connected to parking and rail services only at one end, and circulation between it and the Saarinen building would be circuitous. A proper use plan for the vacated Saarinen terminal must also be developed. But this plan should not be scrapped. What JFK needs is progressive planning that looks boldly to the future without indulging in misplaced nostalgia.

Mark Lamster is a senior editor at Princeton Architectural Press in New York.

Con continued from page 104

not only cages and grounds TWA, but also misunderstands the opportunities of the site and the airport's urbanism. Bodouva's homogenizing, symmetrical beaux-arts diagram depends on a semicircle to mediate between TWA and the far corners of a wedge-shaped site. But what the organic, segmented shapes of TWA suggest is an asymmetrical plan that flows with the site's irregularities while reinforcing the airport's architectural biodiversity.

Airports offer the first and last impression of New York and the United States, and the country that first landed on the moon can surely do better than this regressive diagram. Beyond the mediocrity of a design that traps and neuters the TWA terminal, there is the glaring flaw in the PA's selection process. For this roughly \$1 billion project, the PA placed a one-time ad on November 6, 2000, in only three publications—the *New York Times*, the *Newark Star-Ledger* and *Engineering News Record*—fulfilling legal requirements but missing the point. We grieve for the PA, but before September 11, it was a bureaucracy that dotted the i's but lost its accountability to excellence. This mediocre proposal diminishes us all. For America to fly again, this building must fly as well. *Joseph Giovannini*

OTHER SPECIFICATIONS AT THE PULITZER FOUNDATION FOR THE ARTS

Concrete—Five Star Structural Concrete

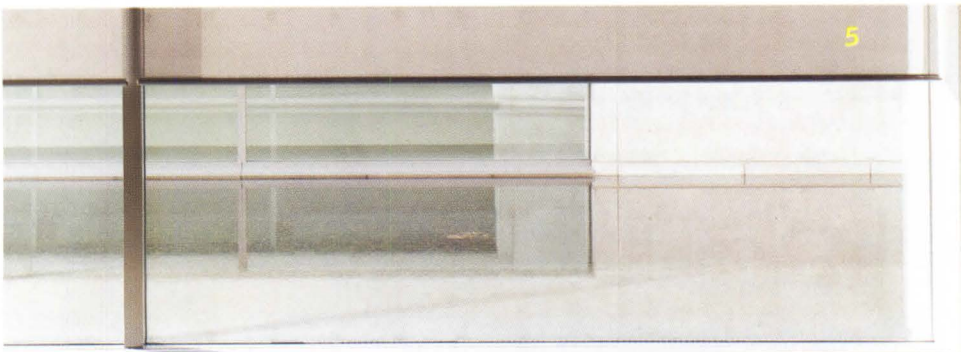
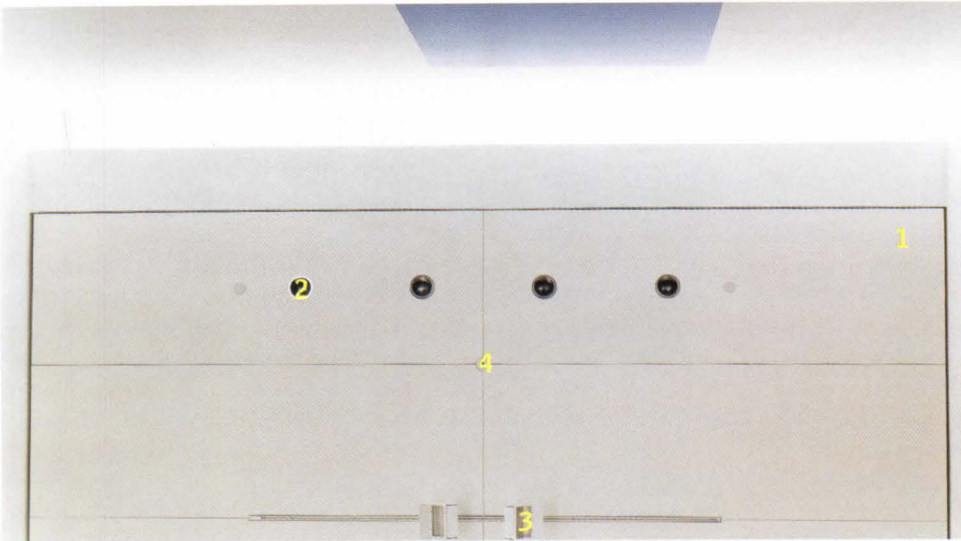
Elevator—Dover

Formwork—Pariform Form Systems

Glass—Hehr International

Hardware—d line International

Millwork—Woodbyrne Cabinetry



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HIGHLIGHTED PRODUCTS

- 1 **Acoustical Ceilings**—Decoustics
- 2 **Recessed Lighting**—Edison Price
- 3 **Track Lighting**—Edison Price
- 4 **Security Device**—ADT
- 5 **Shades**—Nysan Shading Systems
- 6 **Custom HVAC Grills**—A. Zahner

In the building's large gallery, Wischmeyer specified acoustical ceiling panels by Decoustics, which have invisible aluminum frames embedded in the panels, creating only hairline seams where they meet (top). He then placed the sprinkler heads, smoke detectors, and ADT security devices along the hairlines and fit the covers to be perfectly flush with the acoustical surface. Security, insulated, and laminated glazings by Hehr were used throughout the building, which Wischmeyer went to great lengths to ensure had uniform color and clarity, in accordance with Ando's mandate. A colorless UV filter protects the collection; various tints were added to make the three types of glass appear the same. "The glass is pushing the limits of size and strength," notes Wischmeyer, but some breakage during installation proved difficult to remedy, as the Wausau framing too is completely flush with the concrete floors, walls, and ceilings (above). For the most part, however, Ando's *exacting vision proved inspiring to Wischmeyer*: "The smallest decisions were carried out with great care, making peace, calm, and reflection on the art possible." *Alan G. Brake*

Global Arches

continued from page 36

diners in Evansville, Indiana, next year, to test how well a constellation of diners might perform in a given marketplace.

More than half of McDonald's restaurants—roughly 16,200—are outside the U.S. Foreign restaurants account for more than 60 percent of company sales, and 50 percent of profits. Some countries have hosted a McDonald's outlet for more than 25 years.

The international arm of McDonald's has presented extraordinary design challenges to a corporation that prides itself on uniformity. "In Saudi Arabia, each restaurant is really two restau-

rants," says Ron Boneau, senior director for international development. "One section is for men, the other for families." The booths of the family section have doors and walls so women can unveil and eat without being seen. And five times each day the restaurant must shut down entirely for prayers. "If you're inside when they close," says Boneau, "you're locked in."

Boneau and his team work very hard to meet the needs of specific markets—bike parking in China, motorcycle parking in Taiwan, prayer rooms for employees in Indonesia. But the process is about making the fewest possible adjustments to the American model.

"I'll take a set of drawings from the U.S. and say, 'This is where we begin,'" explains Boneau. "Then

you adapt to code requirements, hurricanes, earthquakes, the local building industry, and the culture." As much as possible, the process is centralized. "We used to hire local architects," Boneau says. "But now they are our local experts to help us understand code requirements and the rest." The company is extremely strict about the process. "I've learned the hard way you can't just let local architects loose—we're McDonald's. We have our own way of doing things."

Fred Matthias, an 18-year employee, was a partner in an architecture firm for 10 years, and then worked on an administrative building for McDonald's and was asked to join the company. "I love the brand and what it stands for," he says. "And I love the passion

that the people here bring to it."

Ron Boneau's background is construction. He worked as a project manager for McDonald's in Florida before becoming an executive at the company. He has worked for McDonald's for 29 years; 19 in an international capacity. He is cryptic when asked what he loves about his job. "All the bad is the good, and all the good is the bad," he says mysteriously.

Boneau experiences a special thrill when he ventures out of a foreign city into the countryside. "I'll find myself in a place where there are no billboards, no radio, no television," he says. "There will be a small child who doesn't speak English, he'll see the ring I wear, and he'll say to me, 'McDonald's!' That's a great feeling." ■



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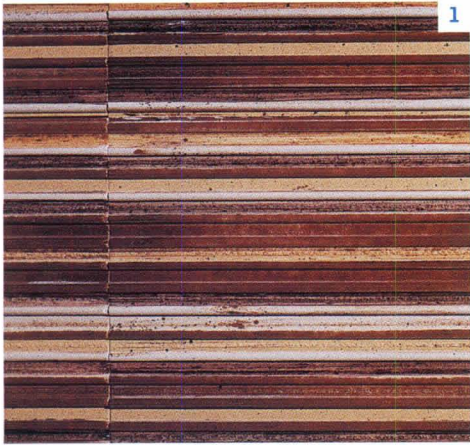
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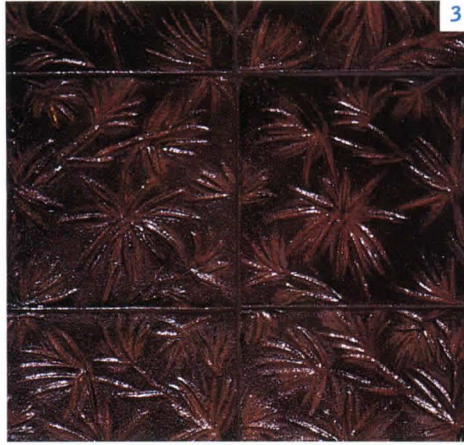
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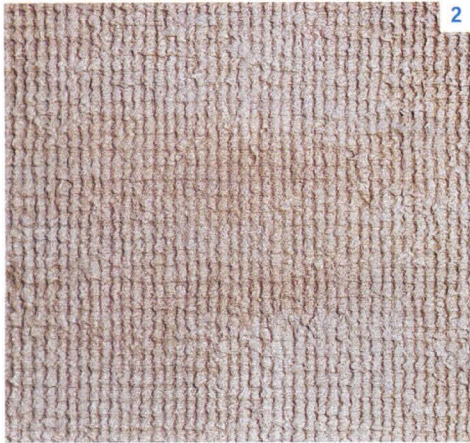


3

IN TILE

Tile manufacturers and designers from around the world made their annual pilgrimage in October to CERSAIE in Bologna, Italy. As the biggest manufacturers of tile products in the world, Italian companies are constantly in search of new trends in technology and style. This year, among the trends were textural surfaces drawn from nature, changes in format sizes and shapes, and metallic and glass finishes.

1 Canne Etnico's series of tiles from **Cotto Veneto** is inspired by bulrushes. These hand-painted bas-relief tiles are available in either traditional terra-cotta or enameled fired clay. Varying tile sizes and colors allow for a range of applications from decorative to structural.



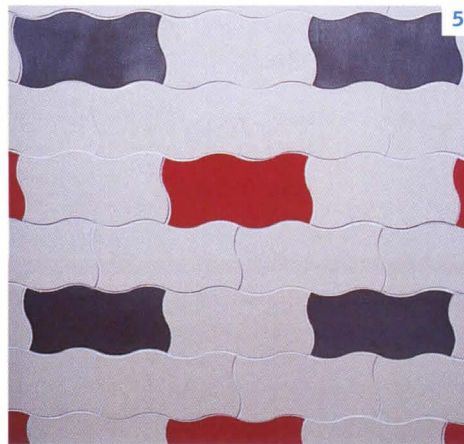
2



4

2 Gardenia Orchidea's sisal-inspired porcelain series **Earth Tapestry**, looks deceptively like carpet. The bas-relief textured finish is produced with an eco-friendly dry-glazing process. The series is available in 18-by-18-inch and 12-by-12-inch formats in beige, almond, nut, and black.

3 Fornace Della Cava's African-inspired earthenware, **Sawili**, has the appearance of worn leather. Beginning with the base, artisans make each tile by hand. The artisanal design is appropriate primarily for decorative applications.



5

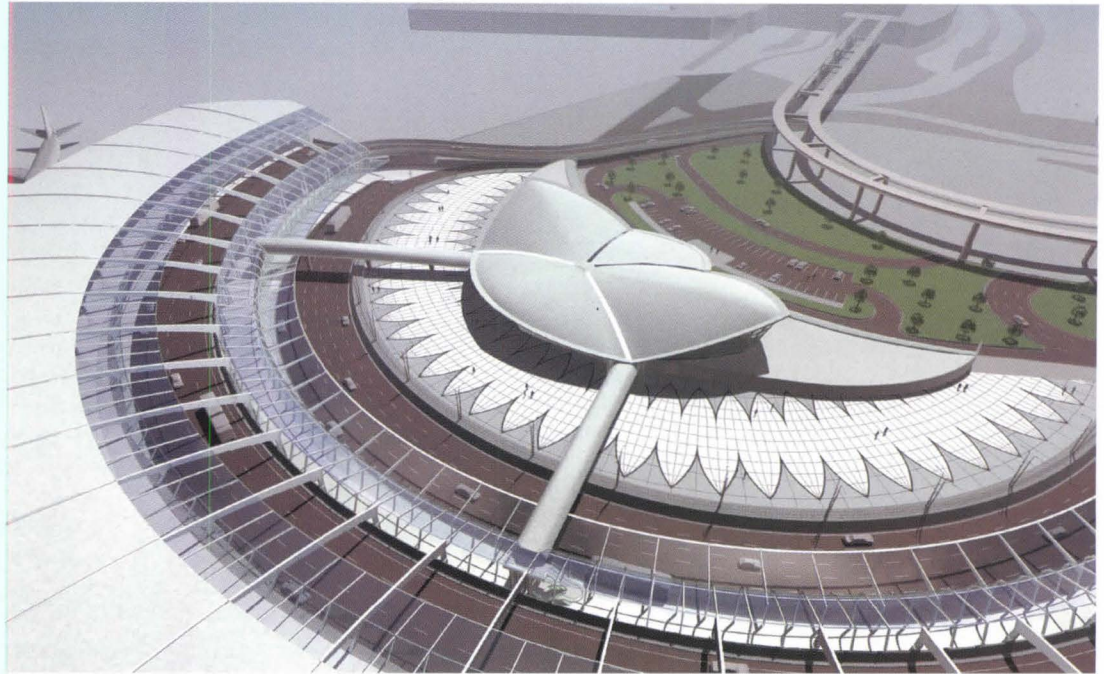
4 Ceramiche Provenza's new series **Natura Delle Cose** has the appearance of natural stone. These glaze-free tiles were manufactured by a new technology that mimics the forces of nature hundreds of thousands of years ago. The series comes in six formats and five colors named after elements.

5 One most often thinks of tile as an inflexible material, but **Gypsum** is manufactured by **Ceramgres** with a plastic base and a clay finish. Available in 11 colors and a wide range of unusual formats including triangles, circles, and wavy-edged forms (pictured), Ceramgres was one of the more playful tiles of the trade show.

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Will This Bird Fly?

Mark Lamster and Joseph Giovannini debate the Port Authority's proposed restoration of Eero Saarinen's famed TWA terminal.



William Nicholas Bodouva + Associates' proposed addition would partially wrap around Eero Saarinen's TWA terminal.

Pro Just in case there was any lingering doubt, it should now be absolutely clear that Eero Saarinen's TWA terminal, though a magnificent work of expressive architecture, is functionally obsolete. This is not news to the architects and planners at the Port Authority of New York and New Jersey, whose offices were on floor 73 of World Trade Center Tower 1. The PA's architecture department miraculously survived the attacks of September 11, and so did its admirable plan for a new terminal at John F. Kennedy Airport that will provide for the safety and comfort of modern air travelers while saving the Saarinen building for generations to come.

Obsolescence is actually nothing new for Saarinen's terminal. Way back in 1962, in the very year the terminal opened, critic Allan Temko—a Saarinen acolyte, by the way—described it as a “failure,” a building both “functionally and symbolically” outdated. The terminal, said the critic, did not reflect the latest technological innovations in airport design and was simply too brazen a paean to its corporate parent.

Alas, what was true in 1962 remains so nearly four decades later. We should not be deluded into the idea that it was once—or could ever be—an effective jet-age terminal, as some advocacy groups have claimed. The building's essential form was determined in 1956, several years before the first commercial jetliners hit America's runways. When it opened, the terminal was immediately overwhelmed by the increased passenger traffic spurred by these new planes, which were themselves too large for the building to handle. Now, with TWA defunct and the sheen of romance removed from commercial *continued on page 100*

Con One of the big no-no's in historic preservation is the unsympathetic alteration of the context surrounding a designated monument: The Parthenon would be diminished with a McDonald's right next to it. And so preservationists are up in arms about protecting Eero Saarinen's seminal TWA terminal at New York's JFK Airport from plans proposed by the Port Authority of New York and New Jersey (the airport's owner) to collar the landmarked building in a huge semicircular terminal that would strand it, usurp its functions, and turn TWA into a piece of architectural jewelry. Though restored, the gull-winged terminal would no longer usher passengers into the air, but serve instead as a restaurant or conference center. Technically saved in what amounts to a Pyrrhic victory, TWA would actually be denatured, transformed from a dynamic to a static space, stripped of the view of jets that relates the building to the sky. Instead of 757's, visitors would be looking at the backside of what promises to be an anticlimactic design by William Nicholas Bodouva + Associates, which conceived the hugely forgettable and expensive USAir terminal at Laguardia. At Bodouva's new Terminal 1 at JFK, the firm was rescued by the talents of associated French architect, Jean Pistre, an advisor to Air France.

New York, the nation, and the world are lucky that the airport's master plan (done by Bodouva in association with Beyer Blinder Belle) threatens the TWA building, because preservation seems to be the only tool available to force the PA into rethinking the overall proposal. The abuse of the TWA building by benign bypass is simply a symptom of a larger problem. The scheme as proposed *continued on page 100*

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