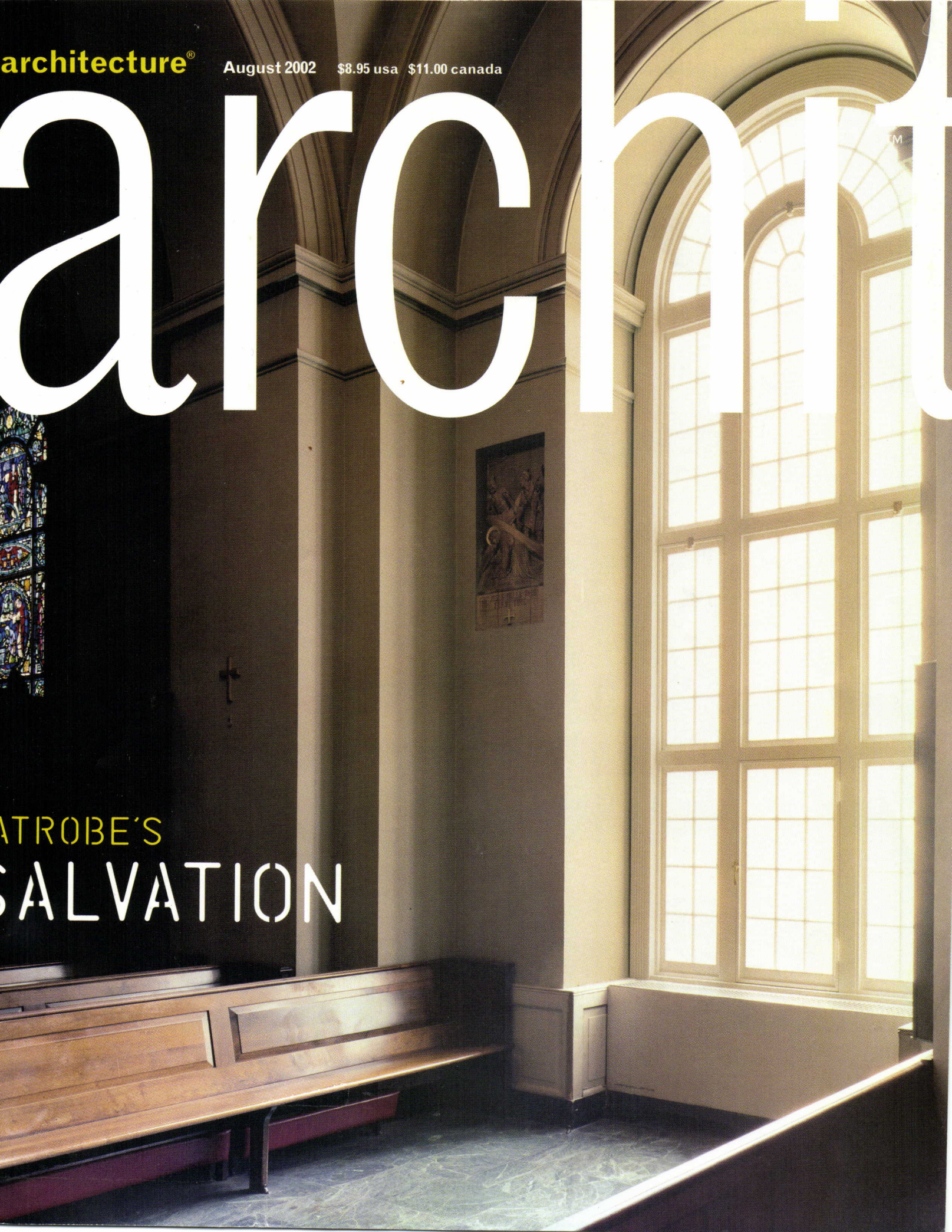


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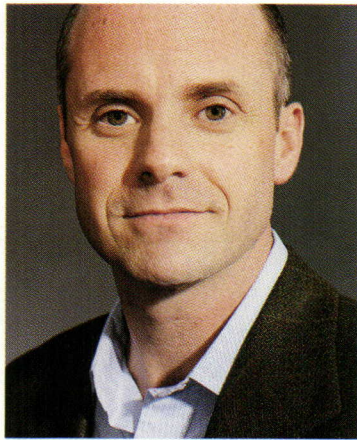


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THINK BIG: SUBVERT THE CONSTRUCTION PROCESS

BY C.C. SULLIVAN

Why do architects so readily become scapegoats for the ills of the construction industry? I was reminded of this conundrum recently at a regional planning group's meeting, where a hotshot urbanist condemned, at great length, the entire architectural profession. And rather than allowing a defense of the design practice, the urbanist instead revealed his solution: He will show up at any project and personally whip the design team into shape (presumably for \$200 an hour or a healthy slice of the design billings).

Big surprise. In fact, treating the architect as hobgoblin has become a respectable way to build a business. New service categories have emerged over recent years to address our shortcomings: Conceptual estimators. Value analysts. Construction managers. Integrated service providers. All too often, these parasitic experts promise more than they proffer. Why? Because the problems they say they solve are endemic to established (or legally allowable) means of developing and building.

The construction process is not perfect, to be sure; but rather than wasting energy trying to dispel doubts about our competency, architects should focus on the

mechanisms that don't work and creatively resolve them through their own projects. In so doing, these practitioners may subvert the conventions and norms of the construction world, but they—and their clients—come out ahead: with buildings that are more comfortable, efficient, cost-effective, and memorable.

COST Cost is a perennial dilemma. Scope creep, market fluctuations, and even our natural desire to please can cause budgets to grow during design development. The response to overruns is rarely to shave the program or footprint; more likely, it's a third party rattling the saber of value engineering.

VE is a minefield, especially for projects that are not well conceived by their owners. Arthur Erickson may complain of the effects of VE on his new museum project (see the stories on pages 80 and 89), but he attempted to head off the issue by guaranteeing a landmark for Tacoma. In effect, Erickson became his own client, conceiving of a world-class venue and energetically pitching his proposal to the museum's board. His tenacity paid off, and the result speaks for itself.

Absent such vigorous leadership on scope and budgeting, we suffer a two-faced built environment: Where cost is the concern, we have manufactured mediocrity; where the intent is to serve humanity, industry, and society, we find buildings that attract—and that work.

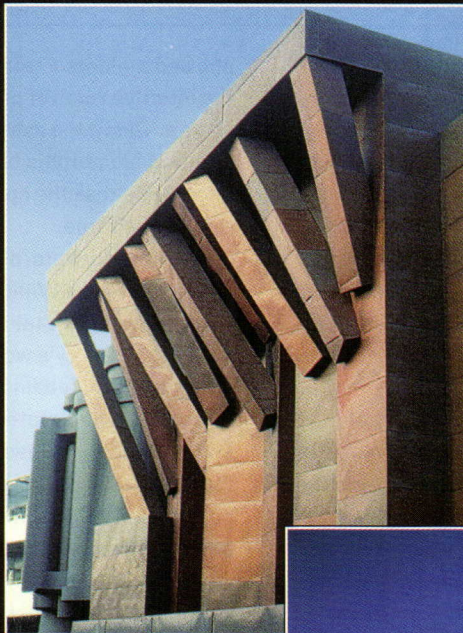
CONSTRUCTABILITY The blame for a widening rift between design concept and construction reality invariably—and unfairly—falls to the architect. Yet, in the 1980s, deconstructivist designers

showed builders a world beyond the intuitive rules of plumb and square. Today, the avante garde is creating biomorphic blobs that once again task the contractor to rethink their role.

To move forward, a new cadre of designers like William Massie and Greg Lynn are taking lessons from Frank Gehry's work and making an end run, feeding CAD data directly into automated milling and forming machines (often in their own studios) to generate prototypes, models, and real building components. While their work to date has been at a relatively small scale, these architects share an appetite for bringing fabrication and construction closer to the drafting table—a wish shared in one form or another by all of the great master builders. The result allies architectural work with craft, industry, and construction technique. Why? To better control the end-result and, perhaps, to produce breakthrough forms.

Of course, architects must earn the right to subvert the traditions and conventions of the de facto building process. We can't merely complain about the failings of others; we must be great at what we do, so that we can have the luxury of identifying weak spots and the opportunity to offer new solutions. But by deliberately breaking with norms and tools that don't work, we can show why the architect can be not only a master builder but a master conceiver, serving as the conscience of the construction process. ■

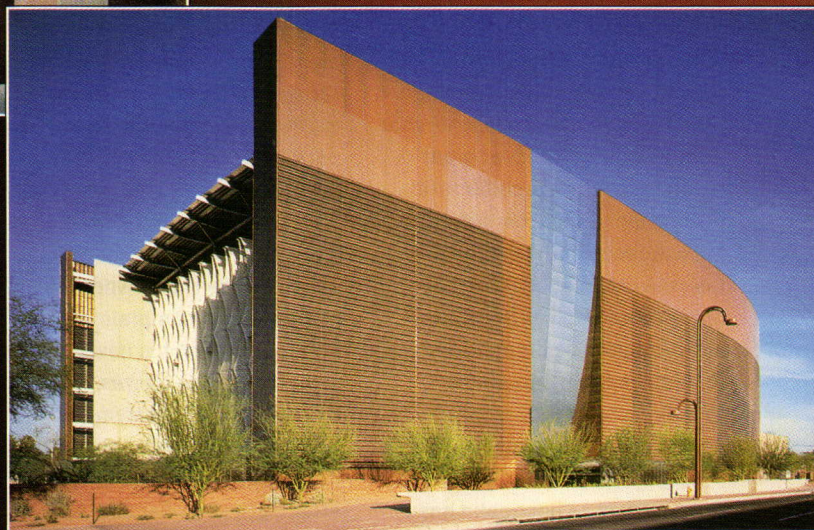
Designing with copper?



Omnicom Group, Venice, Calif.
Frank O. Gehry & Associates



Ceridian Corporation, Bloomington, Minn.
Hammel Green and Abrahamson, Inc.



Phoenix Central Library, Phoenix, Ariz.
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impact of sprawl on the desert, aesthetic “squalor,” and Paolo Soleri’s point that such suburban development patterns are not sustainable on a worldwide scale. Cheek may not like the Arcosanti architectural style, but his comment that it’s an “attempt to renovate humans into social insects” is gratuitous. Mankind has lived longer and on a wider scale in settlements more closely resembling Arcosanti than they have in patterns resembling Phoenix.

Dennis J. Sebian
Kirtland, Ohio

SOCIAL INSECTS

Regarding the article on the Arizona School (May 2002, page 87): Author Lawrence W. Cheek, raises important issues about the

structures—such as the Blur Building (July 2002, page 53)—cannot stand on their own merit but require some kind of quirky feature to draw our attention away from the simplistic nature of the building. I can speak firsthand about this because we have a building in our city that pays homage to the seagull by flapping its wings.

Karl Lusia
Milwaukee

KUDOS FOR KK&E

I applaud your feature on Mohammed Lawal (July 2002, page 29). We are doing a high school project in San Diego with KK&E as associate architects. Mohammed is the “real deal”: extraordinarily intelligent and creative, he is a

SIMPLE STRUCTURES, QUIRKY FEATURES

What is going on with architecture nowadays? It seems buildings, or

role model for anyone, not just young African-American students. The reality is that there are very few African-American candidates and there need to be more.

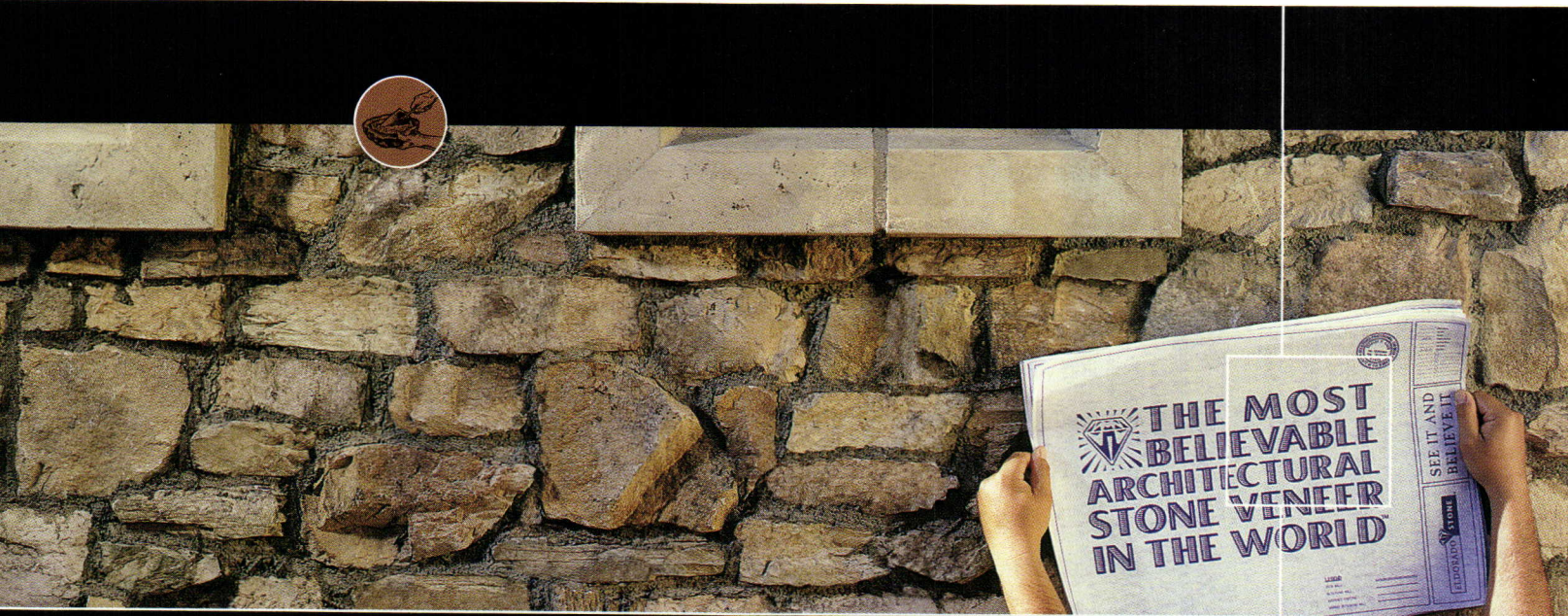
Anthony Cutri
Martinez + Cutri Architects

CORRECTION

Longtime contributor and past staff member of *Architecture*, Raul Barreneche, suffered a misspelling of his name in the July issue; the editors regret the error.

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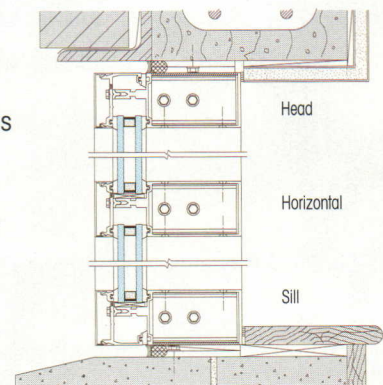
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Citizens Speak Out Against WTC Concept Plans

> REBUILDING The six concept plans for the World Trade Center site, designed by Beyer Blinder Belle and released last month by the Port Authority of New York & New Jersey and the Lower Manhattan Development Corporation, were greeted with a barrage of criticism from design professionals, civic groups, the public, and the press—a recent *New York Times* editorial even labeled them “dismal.” Many have called on WTC officials to start afresh, perhaps with an open international design competition.

The negative response, which was directed mainly toward the plans’ commerce-driven use parameters and perceived lack of ambitious design ideas, was coun-

tered by a potentially positive one from WTC officials, who made a public commitment to reexamine their program (especially the restrictive terms of current leaseholds) and timetable for planning and rebuilding on the 16-acre site.

All six concepts, developed with Parsons Brinckerhoff and other consultants, are dominated by medium-height office towers (with a giant antenna offered as a marker on the skyline), green space with a memorial site, and a major transit hub. The concepts are variations on a theme prescribed by the Port Authority’s brief: 11 million square feet of commercial (equal to that on site prior to September 11), 1.2 million square feet of retail and hotel space, a memorial, and a cultural institution.

While each of these proposals tries to integrate the WTC site into the fabric of Lower Manhattan by reestablishing parts of the street grid and mending the cleaving presence of West Street, there is widespread concern that the PA views its property through a landlord’s eyes, failing to see its recast role: “if there was ever a piece of land that should be treated as part

of the public domain,” writes Paul Goldberger in the July 29 *New Yorker*, “it is this one.” Making this point loud and clear were the 4,000 citizens who attended “Listening to the City” on July 20, an all-day town hall meeting at the Jacob Javits Center organized by the Civic Alliance to Rebuild Downtown New York. Participants called for a more diverse program on the site, including housing, and decreased density, and for a process that gives primacy to the design of a memorial.

Should PA and LMDC officials heed the call for a new approach, argues Jill Lerner—a principal at Kohn Pedersen Fox and co-chair of the Memorial Process Team of New York New Visions, an advisory coalition of design and planning organizations, they must “go back and reevaluate [both] the process and the assumptions of their program.” They cannot use the same process, she says, that shaped the concept plans and “expect to come out with a different result.” **ABBY BUSSEL**

BBB’s WTC concept plans (clockwise from top left): Memorial Plaza, Memorial Square, Memorial Triangle, Memorial Promenade, Memorial Park, Memorial Garden.



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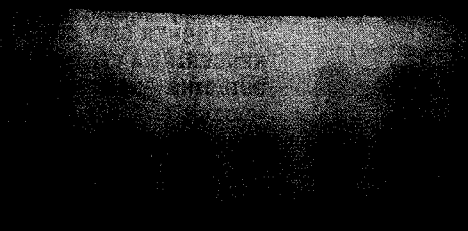
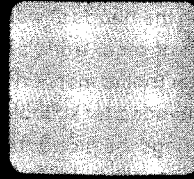
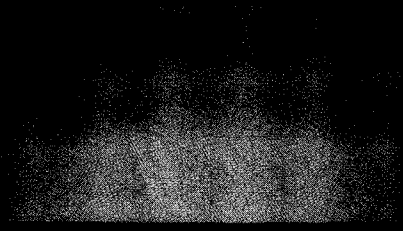
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EXHIBITIONS

> BARCELONA

Gaudi's Universe a celebration of the late architect's 150th anniversary featuring works by his artistic influences and contemporaries, at the Centre de Cultura Contemporània de Barcelona, through September 8 (34) 93-306-4100

> BOSTON

Surface Tension: Works by Anselm Kiefer from the Broad Collections and the Harvard University Art Museums at the Busch-Reisinger Museum, through October 6 (617) 495-9400



> FORT WORTH, TEXAS

The New Modern Art Museum of Fort Worth models and drawings of the new Tadao Ando designed museum, at The Modern at Sundance Square, through December 31 (817) 335-9215

> HOUSTON

Color Field paintings by Mark Rothko, Helen Frankenthaler, Kenneth Noland and others, at The Museum of Fine Arts Houston, through October 6 (713) 639-7540

> LOS ANGELES

Gustave Le Gray: Photographer the largest U.S. exhibit of the 19th-century French photographer's work, at the Getty Center, through September 29 (310) 440-7300

> NEW YORK CITY

Dust to DNA September 11th photographs by volunteer Emergency Medical Technician Mikey Flowers form the basis of this collaboration between Flowers and artist Kevin Clarke, at the International Center of Photography, through September 1 (212) 857-0045



Road Show of Dutch Graphic Design 1990-2001 survey of a decade's worth of Dutch graphic work, at the American Institute of Graphic Arts, through August 23 (212) 807-1990

> PITTSBURGH

Designing Oakland a survey of proposed plans and historical documentation of the Pittsburgh neighborhood, at the Carnegie Museum of Art, through September 22 (412) 622-3131

> SAN FRANCISCO

Taken by Design: Photographs from the Institute of Design, 1937-1971, at the San Francisco Museum of Modern Art, through October 20 (415) 357-4000

> SEATTLE

Do-Ho Suh the Korean installation artist's work shown at the 2001 Venice Biennale, travels to the Seattle Art Museum, opens August 10 (206) 654-3255



> VIENNA

Heaven's Gift: A New Programmatic Strategy for the Presentation of Contemporary Art the CAT (Contemporary Art Tower) project proposes to integrate the Arenburgpark anti-aircraft tower into Vienna's urban and social life with significant use of new media, at MAK, through November 10 (43) 1-71136-227

> WASHINGTON, D.C.

Inside the Temple of Liberty: 19th-Century Interiors of the United States Capitol paintings by Peter Waddell, at the Octagon Museum, through October 15 (202) 638-3105

Zaha Hadid Laboratory recent architecture projects, at the National Building Museum, opens August 17 (202) 272-2448



CONFERENCES

What Matters Now: 52nd International Design Conference in Aspen committee members include Walter Hood, Michael Rotondi, Lorraine Wild, Paola Antonelli, Bran Ferren, Gregg Pasquarelli, and Billie Tsien, in Aspen, Colorado, August 21-24 www.idca.org

Universal versus Individual: The Architecture of the 1960s keynote speakers include Beatriz Colomina, Claes Caldenby, and Dennis Doorman, sponsored by the Alvar Aalto Academy, Jyväskylä, Finland August 30-September 1 www.alvaraalto.fi/conference/universal

Montreal: A City of Contrasts an AIA Professional Practice Conference presented by the Committee on Design PIA, in Montreal September 19 www.aia.org/pia/cod/conference/

100% Design, at the Earls Court Exhibition Center, London, September 26-29 www.100percentdesign.co.uk

Codes Expo 2002, sponsored by ICC, BOCA, ICBO, and SBCCI, in Fort Worth, Texas, September 29-30 www.sbcci.org/codes/2002_Expo.cfm

Rail-Volution 2002, Washington, D.C., October 3-6 www.railvolution.com

National Organization of Minority Architects International Congress and Exposition at the Wyndham Bonaventure and Spa, Ft. Lauderdale, Florida, October 15-18 www.noma.net/conf

UD2002—International Conference for Universal Design in Japan 2002 at the Pacifico Yokohama, November 30-December 04 www.ud2002.org

COMPETITIONS

50th Annual P/A Awards sponsored by Architecture. Deadline August 26 (646) 654-5769

"Dwelling Where the Muses are Served/Spared Emptiness" is the theme for the **Shinkenchiku Residential Design Competition 2002**, held by The Japan Architect. Daniel Libeskind will judge. Submission deadline September 2 www.japan-architect.co.jp

The Busan International Culture Festival Organization (Republic of Korea) is sponsoring an international ideas competition open to young architects (40 years or younger) for the design of an observation tower. First prize is \$30,000. Entry deadline September 30 www.biacf.org

Moscow-City free competition for the design of a complex of administration buildings for Moscow government and municipal council in the international Moscow business center "Moscow-City." Entry deadline October 15 www.dom6.ru/mcity/default_eng.htm

The City of Ames, Iowa, invites submissions from design students and professionals for the **Landmark Challenge Design Competition**, to give a functioning power plant a prominent visual identity. Submission deadline December 2 www.city.ames.ia.us

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Belden Brick offers thirteen different textures that range from silky smooth finishes to rugged randomly textured styles. Each texture can make its own distinctive contribution to the visual impact you seek.

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is a much greater perception of threat." Architect Charles Rodenfels, who as a senior vice president for URS, a planning and engineering firm, spent eight years designing for the Pentagon, sees security concerns arising from previously quiet sources: "Even if it's the branch bank in the community, many private corporations are in the assessment stage, asking, 'Do we go to the next level?'"

There are three primary sources of guidelines for defensive architecture. The first comes from the Department of Defense, which is currently revising and updating what it calls "antiterrorism force-protection" guidelines. The State Department has its own guidelines. And the Interagency Security

Committee (formed by the General Services Administration and the Justice Department in the wake of the Oklahoma City bombing) has guidelines for all domestic buildings. These documents are not classified; they are accessible to designers and contractors on government projects, but they are often given out piecemeal, or incomplete, on a need-to-know basis. In the wake of September 11, demand for this information has expanded into the private sector. At the same time, says Little, "There's been a pullback, due to an increased concern about giving information to the bad guys."

The most sensitive kinds of information in counterterrorist design are the details specific to individual projects. Experts agree

that certain details—a building's specific blast tolerance, and the location of critical assets—should be kept secret. Other measures are openly discussed. Rodenfels refers to these areas as "passive design": strategies that prevent terrorists from achieving a successful strike on a building. For instance, because blast loads decrease with the cube root of the distance, creating a "stand-off distance" can be the most effective (and cost-effective) piece of any defensive design. Elements may include concrete barriers, bollards, and planters, but more elegant approaches include creative site planning and landscaping. More expensive cameras, keycards, fingerprint and retina recognition devices—are all possible

strategies that designers and consultants consider.

Designers and engineers must also think beyond prevention. Progressive collapse, in which damage to one part of a building causes a chain reaction of structural failure, is the single greatest cause of death in terrorist bomb attacks, as proven in Oklahoma City and at the Khobar Towers in Dharan. "Structures can be designed to create alternate load paths within a building," says Steven Baldrige of Baldrige & Associates Structural Engineering, adding that these techniques come with a variety of price tags and can be retrofitted into existing, less secure structures. Flying glass is the second greatest structural con-



Disappearing can be the
most beautiful act of all

cern, and a number of coatings are now available to prevent glass from shattering and "blast curtains" to catch shards of glass.

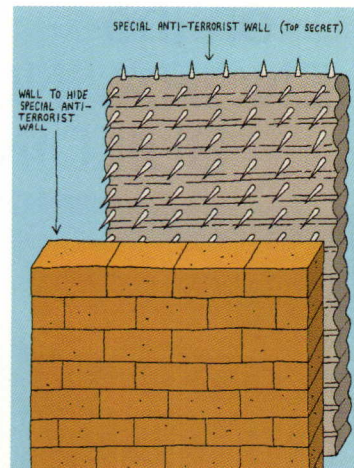
While these techniques may sound like common sense, they are the result of painful lessons. "There's a constant co-evolution," explains Dr. Lorraine Lin, a blast designer with Hinman Consulting Engineers, which focuses on blast mitigation. "With each event, we learn new things and develop design techniques to defend." In Oklahoma City her firm's principal engineer, Eve Hinman, was on site to discover that the blast blew out windows two blocks away from the impact site. Approaches to treating windows have taken on new urgency since then.

The same firm also employs a search-and-rescue expert to focus on the third phase of antiterrorist protection. In the worst-case scenario, how can good design make it easier to recover those trapped inside a building? As in seismic design, buildings can be designed to collapse less like a house of cards and more like pick-up sticks, with air pockets where victims can survive until rescuers reach them. Similarly, designers are looking closely at stairwells to see how to move people more quickly while admitting less smoke.

Defensive architecture is only one piece of a broader approach to security. In the wake of last fall's anthrax attacks, engineers began to think about protecting building

occupants against chemical and biological weapons, looking critically at unprotected ground-level air vents and the creation of zoned HVAC systems, similar to techniques that prevent the spread of smoke during a fire.

While defensive design can never end the threat of terrorism, imaginative architects can lessen damage while at the same time creating buildings that feel open and safe. "There are probably a lot of interesting and as yet undiscovered solutions," says Eric Keune, an associate with Skidmore, Owings & Merrill in San Francisco. "The challenge is to find a strategy for security that is more than brute strength and 24-inch, poured-in-place concrete walls." ■



SAN FRANCISCO-BASED WRITER PURCELL CARSON WROTE ABOUT AN ANTIMICROBIAL HOUSE FOR THE JUNE 2001 ISSUE OF ARCHITECTURE.

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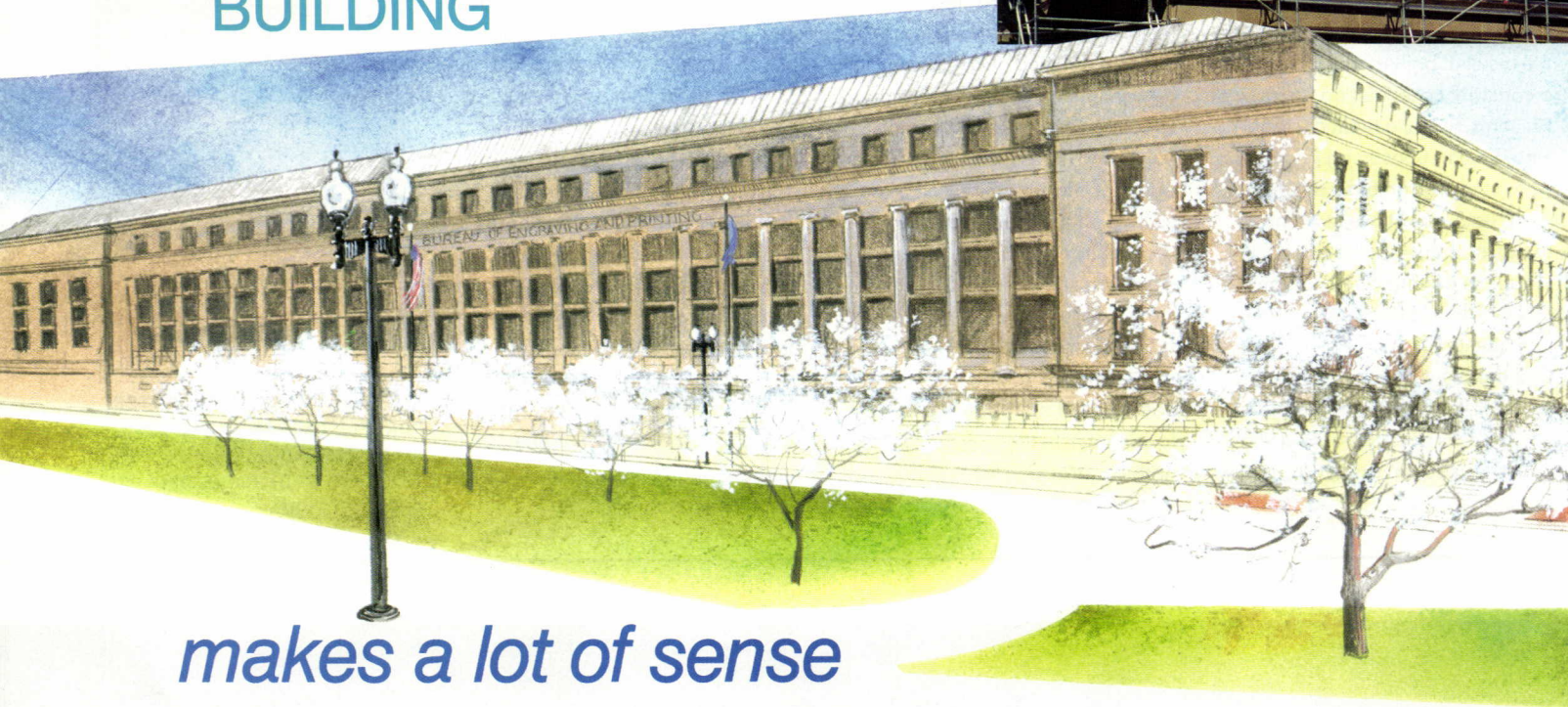
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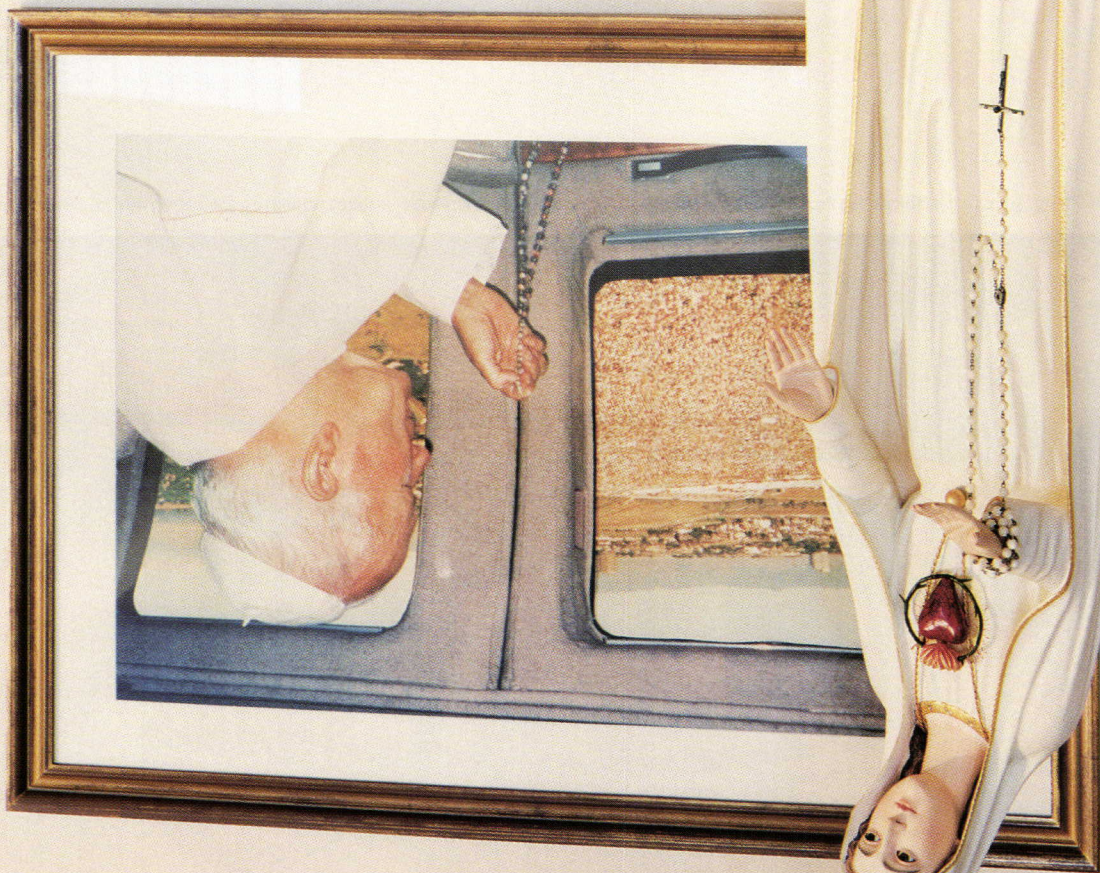


Benjamin Henry Latrobe's final design for the Baltimore Cathedral (above), seen here in a view from the southwest rendered by the architect circa 1818.

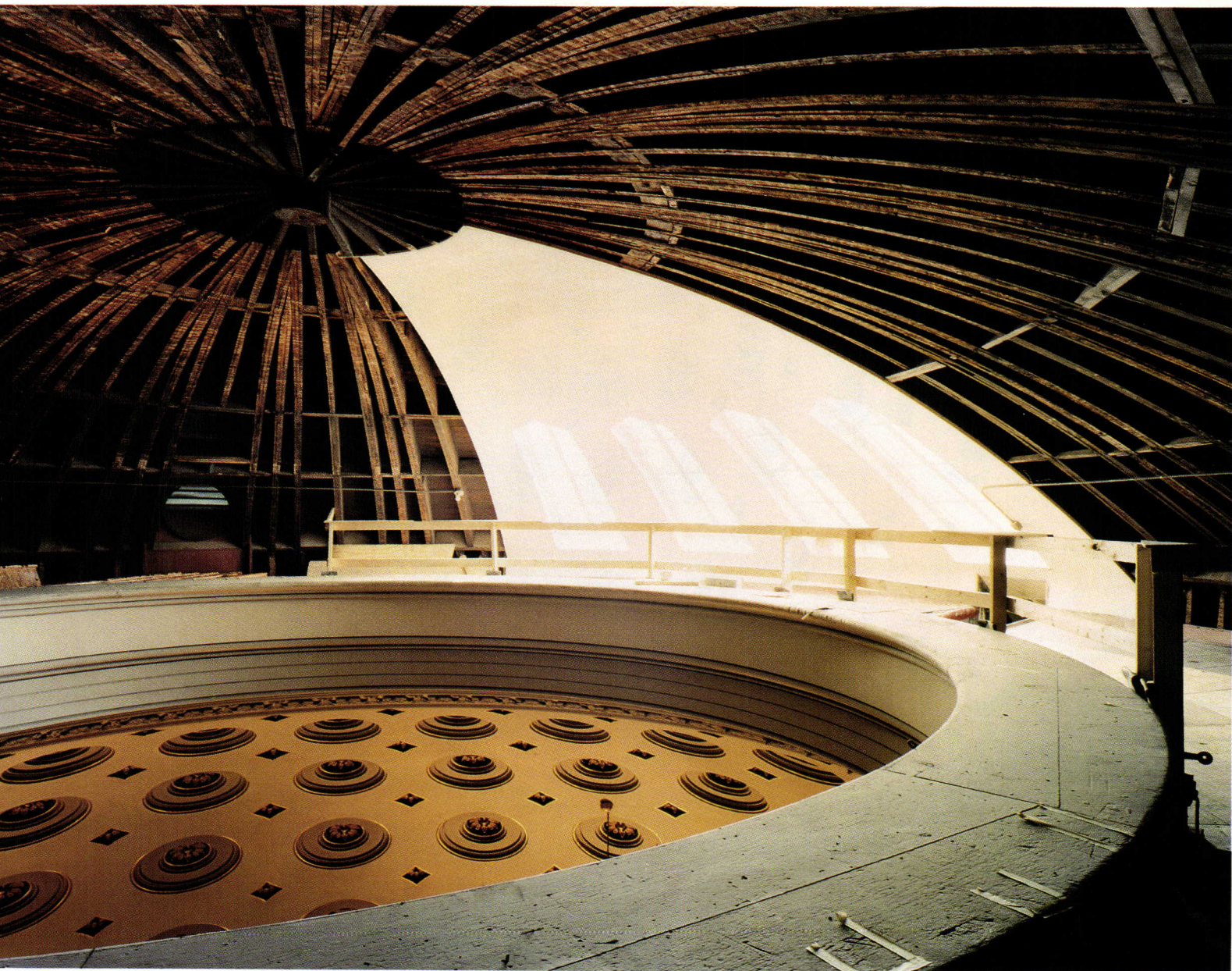
Radical Resurrection When is historic preservation radical? In the case of the Baltimore Cathedral, the country's oldest Catholic cathedral, radical may be an understatement. The restoration of Benjamin Henry Latrobe's original design boldly peels away layers of religious ornament and iconography—including stained-glass windows—added since its dedication in 1821. The reemergence of Latrobe's unadorned design, examined in our cover story this month, can be viewed as a coincidental metaphor, as the Catholic Church necessarily grapples with a reassessment of its institutional culture. Simple and stark, Latrobe's scheme shunned the baroque, seeking instead classical forms, a neutral color palette, and ample fenestration for enlightenment of the faithful.

FAITH

RESTORED



BY PARING BACK LATER ADDITIONS, BEYER BLINDER BELLE AND JOHN G. WAITE ASSOCIATES RETURN BENJAMIN HENRY LATROBE'S BALTIMORE CATHEDRAL TO ITS ELEMENTAL ELEGANCE.
BY SARA MOSS
PHOTOGRAPHY BY ADAM FRIEDBERG



...t outside the crypt (facing
...), modern and antiquated
...visions of the church coexist:
...dinal Keeler's snapshot of
...e John Paul II—taken in a
...icopter—hangs behind a figure
...ur Lady of Fatima. The first
... skylights (above) to be rein-
...duced puncture the laminated
...den ribs of the delorme dome,
...same structural system used
...e U.S. Capitol building,
...igned by Latrobe in collabora-
...n with Thomas Jefferson.

When the Baltimore Cathedral, formally known as the Basilica of the National Shrine of the Assumption of the Blessed Virgin Mary, was completed in 1821, it became a landmark building not only for the Catholic Church but for the country. Designed by Benjamin Henry Latrobe, the country's first professionally trained architect, and designer of the U.S. Capitol building in Washington, D.C., it was listed on the National Register of Historic Places in 1972. "When I was assigned here in 1989," says Baltimore's current Cardinal Archbishop William H. Keeler, "I already knew that this was our most historic church in the United States. But only as time went on did I come to understand the architectural significance and the symbolic aspect of the church: it was celebrating religious freedom."

Its historic role, however, has taken a toll on the cathedral's understated Neoclassical inte-

rior. As the Catholic Church's first major building in the United States, the cathedral was the site of many councils. "The councils," says Cardinal Keeler, "were the gathering of the bishops of the country that shaped our way of preaching the gospel in the nineteenth century in the United States."

Each council meeting proved an occasion for redecoration. Nearly 200 years after the beginning of construction, its minimally decorated, sunlit sanctuary has changed into a polychromatic, busy interior devoid of natural light. Now a major—and unusual—preservation project is underway: returning the Baltimore Cathedral to Latrobe's original design intent.

Baltimore's first archbishop, John Carroll, was instrumental in the cathedral's construction, as well as the choice of architectural style. Latrobe simultaneously proposed two schemes—





With the introduction of clear glass skylights, unembellished sunlight (see page 52) can now enter the sanctuary. Natural interior light has been greatly reduced by the sealing up of the skylights (a leaky quick fix), as well as the introduction of large stained glass windows in the 1950s. Further darkening the interior are the green marble floor and dark wooden pews. Among other elements not in Latrobe's original design are the expanded balcony at the west end and the windows in the façade behind the altar. The windows will be filled with the balconies removed and the original main door restored. The original altar, replaced with a temporary one during the expansion of the sanctuary, will be brought back to the cathedral.

one for a large Gothic Revival building, the other for a smaller Neoclassical one. The archbishop chose the latter, which Latrobe developed through a total of seven proposals. "Bishop Carroll had seen John Soane's work and wanted a Classical Revival building," says Wayne Ruth, chairman of the Basilica of the Assumption Historic Trust. "He wanted a new architectural symbol [for the Catholic church] that didn't harken back to the Middle Ages."

The diocese has long been aware of the building's preservation demands. In 1976, church officials founded the Basilica Trust, a non-profit organization—separate from the diocese—whose purpose was to oversee maintenance of the cathedral. After a capital drive, the board selected a local firm to draw up a report on the building's condition at the time.

The Basilica Trust's priority was to repair the

normal wear and tear that a 175-year-old building would exhibit, and to upgrade older building systems. "[Our first concern] was what we had to do to stabilize the building," says Cardinal Keeler. "Now we were looking," says the Cardinal, "to do the best job that we possibly could do." The decision was made to commission a more thorough study of the building, and develop a restoration strategy. The trust, after interviewing seven firms, selected two.

Beyer Blinder Belle, the New York City firm known for restoration projects like Grand Central Terminal, would be in charge of master planning: overall site issues, site development (including the renovation of the adjoining archbishop's house), and integration of new uses and facilities into the cathedral. John G. Waite Associates, the Albany, New York, firm that recently completed the restoration of the



The Getty Conservation Institute has funded an investigative study on the exterior and interior of a slice of the great dome (above) that has added skylights, wooden shingles, and copper skin. Timber supports from the original scaffolding remain in a chamber at the base of the north tower (facing page), built in 1838.



Tweed Courthouse in downtown Manhattan, would restore the Basilica's interior and exterior. (The two firms are each independently contracted to the Trust.) The firms began their collaboration by working for two years on the historic structure report, a massive document detailing the physical conditions of the cathedral. This proved to be "an exercise in team-building," says Doug McKean, partner-in-charge at Beyer Blinder Belle.

Out of the report came the recommendation to return the cathedral to Latrobe's original design intent: "the effects of twentieth century modifications that have compromised the original character of the Basilica," the report states, "need to be reversed."

In the interior, Latrobe's vision of a simple, monochromatic worship space will be realized with the reintroduction of clear glass sanctuary

windows, a lighter paint scheme, white marble floors, and mahogany pews, painted white except for the trim.

In the 87-foot high main dome, of the same type Latrobe used at the Capitol, four skylights built exactly to Latrobe's specifications have already been reinstalled, funded by a Getty Conservation Institute restoration grant. Twenty more skylights will be reintroduced in the next few years. On the dome's exterior, a pie-shaped section has been reclad and shingled—also part of the Getty grant.

The main roof, raised in the 1850s, conceals another original but unclad brick vaulted dome inside. The lead-coated copper skin of the roof and main dome, is, as principal architect Jack Waite states, "eating itself away." In the restoration's next phase, the roof will be removed, the parapet lowered to its original height, and



The crypt (above), where many of Baltimore's former archbishops now rest, is currently accessible only by a private entrance opposite the archbishop's house. It will be connected by a new set of stairs to the sanctuary.



the second-floor connector to the archbishop's house (above, at left) will be replaced by a grade-level passage through the apse (above, at right) that resembles Latrobe's original. As part of Beyer Blinder Belle's masterplan, the archbishop's house, designed by an associate of Latrobe's named William Small and built in 1829, will be returned to its original design. The form stone, used to mimic the cathedral masonry, will be removed and the original coursed stucco exterior beneath will be restored if possible. The house will be upgraded in accordance with ADA standards and given the facilities necessary to host large functions.

the newly revealed dome will be clad with new wooden shingles.

While the architects will restore features once part of the original cathedral, they will also incorporate later additions, as well as elements planned but never realized by Latrobe. The apse addition—constructed in the 1890s and not part of Latrobe's design, but valued for the much-needed additional space it provides—will be opened up to permit procession around the back and to the new small chapel in the undercroft.

Completion of work on the cathedral itself is expected in 2005, with the remainder of the work done in 2006. Some benefits, however, can already be felt by those who spend many of their days in this historic building. "It's thrilling to see those initial skylights being installed," says Cardinal Keeler. "They make quite a difference already."

Such a radical renovation is possible in part due to the fact that the cathedral project is privately funded. Through the Federal Historic Preservation Tax Incentives program, clients can receive tax credits by following the Secretary of the Interior's Standards for Rehabilitation, developed to discourage overzealous developers from rending historic building fabric. "The guidelines," says Waite, "become required if you are using federal money." While the guidelines have helped save many historic structures, he believes that they may have also fostered unnecessarily cautious preservation strategies. Perhaps the Baltimore Cathedral renovation, intended to exact a balance between restoration and rehabilitation, will serve as a model in realms both public and private. "It's an unusual project," says Waite. "I think it will set a new direction in preservation." ■



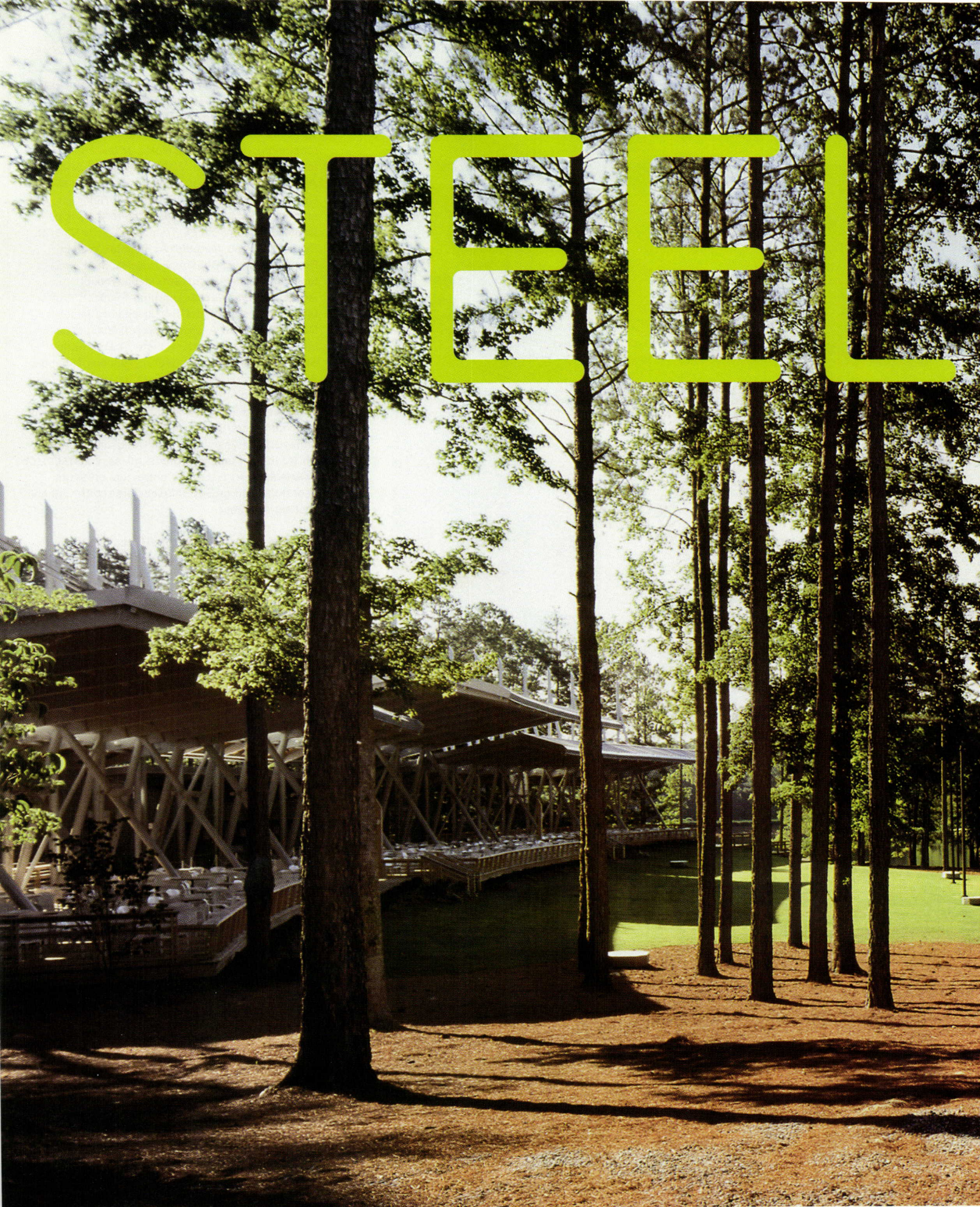


RESTORATION OF THE BASILICA OF THE ASSUMPTION (BALTIMORE CATHEDRAL), BALTIMORE, MARYLAND
CLIENT: The Basilica of the Assumption Historic Trust—Cardinal William H. Keeler; Wayne T. Ruth (chairman); Robert J. Lancelotta, Jr. (executive director) **ARCHITECT:** John G. Waite Associates, Architects, Albany, New York—John G. Waite (principal); Michael Curcio (project manager); Stephen F. Reilly (project architect); Douglas G. Bucher, Chelle M. Jenkins, Daniel J. Wilson, Cory E. Trembath, Carrie M. Britt, Sylvie Blondeau, Meredith A. Schmidt, William Brandow, John P. Chester, Edward A. Sehl (project team) **LANDSCAPE ARCHITECT:** Mahan Rykiel Associates **ENGINEERS:** Thornton Tomasetti Cutts (structural); Meinhardt USA (mechanical/electrical); Delon Hampton & Associates (civil) **CONSULTANTS:** Mt. Ida Press (architectural history); Dr. Charles Brownell (architectural history); Atkinson-Noland & Associates (non-destructive evaluation); Vladislav Yeliseyev (rendering); Van Deusen & Associates (elevator); Preservation Specs Group (specifications) **Subcontractors/Suppliers (Phase 1—Getty Grant project):** LCM Associates (millwork); James Myers Co. (roofing); Cummings Studio (glass) **CONSTRUCTION MANAGER:** Henry H. Lewis Contractors **LIGHTING DESIGNER:** George Sexton Associates **COST:** Withheld at client's request

BASILICA OF THE ASSUMPTION MASTERPLAN AND ARCHBISHOP'S RESIDENCE REHABILITATION, BALTIMORE, MARYLAND

CLIENT: The Basilica of the Assumption Historic Trust **ARCHITECT:** Beyer Blinder Belle Architects & Planners, New York City—Douglas McKean (partner-in-charge); Hany Hassan (associate partner) **ENGINEERS (Archbishop's residence only):** Delon Hampton & Associates (structural); Allen & Schariff (mechanical/electrical) **CONSTRUCTION MANAGER:** Henry H. Lewis Contractors **COST:** Withheld at client's request

STEEL



PINES



A PAVILION IN THE WOODS BY WILLIAM RAWN ASSOCIATES
SETS A SUITABLE STAGE FOR A SYMPHONY. BY VERNON MAYS



With its robust steel frame and lightweight glass enclosure, the pavilion represents Rawn's efforts to avoid the fate that can befall this building type: "a dark hole," he says, "that collects leaves and coffee cups." The stage spreads out and down to meet the ground, anchoring the building to the site.

When small towns grow big, their civic ambitions tend to keep pace. And so it is in boomtown Cary, North Carolina, which has ridden the tidal wave of growth in the Raleigh area and sought to stake its claim as a model of New South prosperity. Population growth in Cary has stirred a strong appetite for all things cultural, making the town a perfect venue for the summer tour of the North Carolina Symphony. But the makeshift wooden stage assembled for symphony performances wasn't fitting for a town on the move at the turn of the twenty-first century. Koka Booth, then mayor of Cary, set out to do something about it.

To design the Amphitheater at Regency Park, Booth brought in William Rawn Associates, the Boston-based firm known for its design of Seiji Ozawa Hall at Tanglewood, the summer home of the Boston Symphony Orchestra. The brief for the Cary project was to create a permanent,

open-air stage that was acoustically suited for symphonic music, but could also be adapted for theater, opera, and dance. Rawn responded with an expressive steel, wood, and glass pavilion that is every bit as awe-inspiring as the performances it hosts. And, with the addition of a freestanding curved deck where VIPs dine under a protective canopy, he deftly reconfigured the site to create a performance venue where both casual listeners and devoted patrons can enjoy the performing arts in a wooded setting.

Although the intent was to create a suitable place for top-notch music and theater, a key strategy was to preserve the spirit of the old site. "People liked the feeling of sitting out in the pine woods and listening to music," says Alan Joslin, principal-in-charge of design. "It was very primitive, but very pleasant." So important was the presence of the towering pines that the architects' first scheme for the orchestra pavilion

incorporated a row of narrow poles embracing the stage. Their solution distilled the number of poles to eight, each 90-foot-tall member clasping a steel cable that helps support the canopy roof.

From the start, the client was enthusiastic about a modern design and how it could enhance Cary's reputation. Joslin says the prominent steel-and-glass roof acquired its curved profile through an attempt to dissolve the frame of the stage and move it up and away from the performers. Now, in a sense, the spatial box of the stage bleeds out and into the woods. The decision to suspend the roof from cables emerged after the architects committed to the idea of creating tall columns to embody the spirit of the woods. It was a matter of form first, structure later.

The pavilion's visual lightness belies a muscular structural system that is boiled down to its essence. Aside from two beefy 20-inch-diameter steel tubes angled to resist



Opposite the performance pavilion is the crescent seating area, which employs the same structural vocabulary. Rawn placed the building on a natural rise in the landscape, providing VIP concertgoers with unencumbered views of the stage.

the pavilion's natural tendency to tip forward, the supporting members were detailed to sticklike proportions. Fundamental to the engineering solution was the choice to treat the eight tall poles not as columns but as trusses, says Fraser Sinclair of LeMessurier Consultants, structural engineers in Cambridge, Massachusetts. Two steel tubes extend from the front of each 90-foot pole to form a flattened triangle, each of which resists the bending forces exerted by the suspended canopy. The eight "vertical trusses," in turn, are joined together by a curved horizontal truss concealed in the canopy roof. Two-foot-thick foundation walls at the base of the platform receive the lion's share of the overturning force through the two massive steel tubes.

Wind uplift posed a great concern for the winglike canopy, so the front truss is encased in a thick shell of concrete that acts as ballast to resist the roof's tendency to elevate in stiff

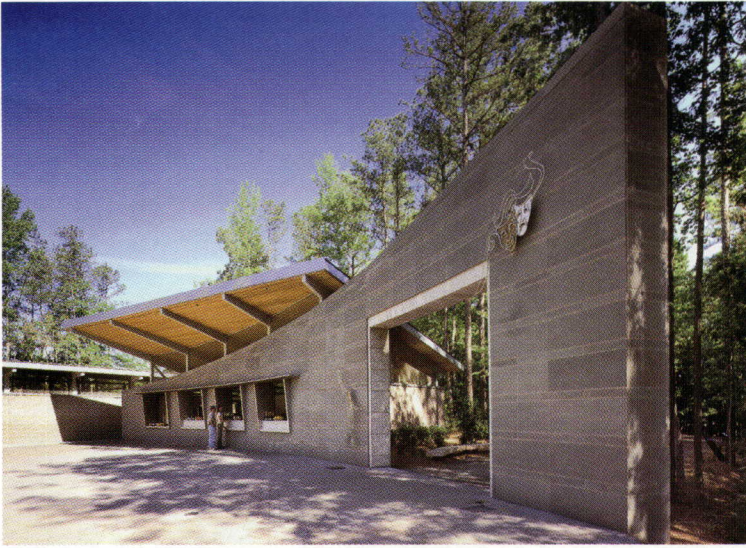
winds. "Keeping it from collapsing is no problem, but keeping it from flying into the air was the structural challenge," says William Rawn.

Although one first perceives the pavilion as primarily steel and glass, Rawn says he wanted to include a wood surround for warmth and, in his words, seriousness. Large glass panels above the cedar walls maintain the pavilion's feeling of openness, yet serve to reflect sound into the audience. Service functions and dressing rooms are concealed unobtrusively behind the stage.

Rawn's site solution is as studied and as elegant as the pavilion design itself. The old symphony platform sat on the eastern side of the clearing in the woods, with a VIP tent positioned awkwardly—and somewhat undemocratically—beside it. In the new arrangement, the pavilion is placed on the southern edge of the site and the organizing axis skewed to provide clear views both of the stage and the adjacent lake for 7,000 concert-

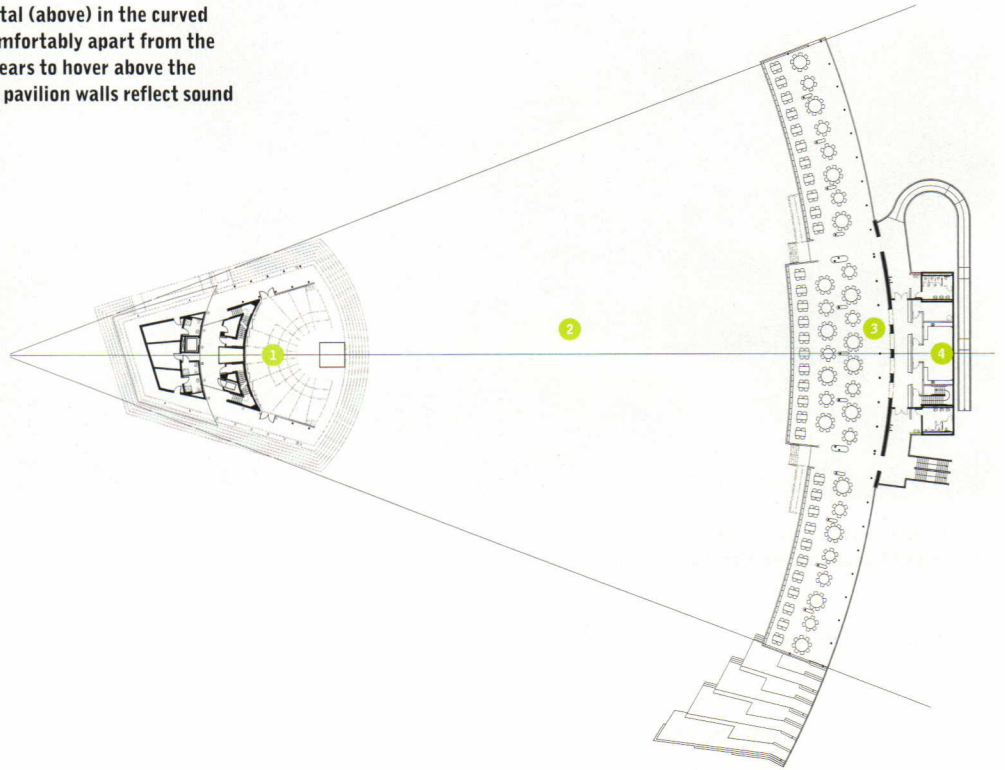
goers, most of whom sit on a manicured lawn. The crescent-shaped VIP dining shelter is placed at a distance to embrace and enclose the lawn where most of the audience members sit on blankets and in folding chairs. With its tubular steel frame and angled roof, the crescent picks up on the same structural themes as the performance pavilion and knits the two together. "It becomes a compilation of buildings, rather than a single building," says Rawn. "By doing that, our intention was to root the thing in the landscape."

A small ticketing building and an amply proportioned facility for concessions and restrooms complete the ensemble of buildings on the grounds. In the evening, the tilted rooflines of the secondary buildings expose wood decking whose presence evokes the informal air of a summer camp. And with kids throwing Frisbees and kicking soccer balls on the lawn prior to performances, the camp analogy is not so inappropriate. ■

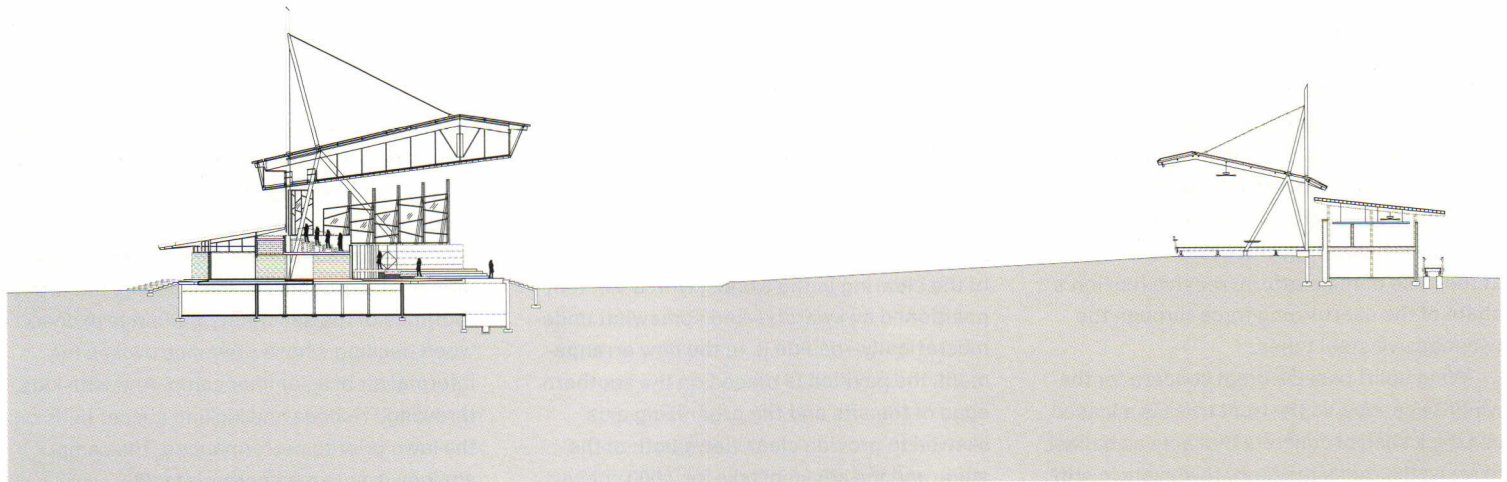


A path through the woods leads visitors to the entry, a portal (above) in the curved bluestone wall of the concessions building, which is set comfortably apart from the performance area. At night, the suspended stage roof appears to hover above the performers. Clear glass panels on the upper sections of the pavilion walls reflect sound into the audience (facing page).

- 1 stage
- 2 lawn
- 3 VIP dining
- 4 concessions/washrooms



Plan 32' ↗



Section 48'

AMPHITHEATER AT REGENCY PARK, CARY, NORTH CAROLINA
CLIENT: Town of Cary **ARCHITECT:** William Rawn Associates, Architects, Inc. Boston—Alan Joslin and William L. Rawn III (principals in charge of design); John Upton (project manager); Victor Liu, Gary Gwon, Ken Amano, David Grissino, Ryan Senkier, Basil Richardson, Jonathan Parker, Mathew Cohen (project team) **CONSULTANTS:** Kirkegaard Associates (acoustics); Theater Projects Consultants (theater); Reynolds & Jewell (landscape architect); Ripman Lighting Consultants (lighting) **ENGINEERS:** TMP Consulting Engineers (mechanical); LeMessurier Consultants (structural) **CONTRACTORS:** Barnhill Contracting Company, ANECO Electrical Construction, Brown Brothers Plumbing & Heating Company, Acorn, Industrial **PHOTOGRAPHERS:** Robert Benson and Michael Zirkle



MASTER



MICHAEL WILFORD ADDS TO B. BRAUN'S HEADQUARTERS—AND TO JAMES STIRLING'S LEGACY. BY CATHERINE SLESSOR

CLASSES

The boldly singular forms of the new administrative building, which aims to accommodate a nonterritorial work environment, on the B. Braun campus, echo components of the scheme by James Stirling, Michael Wilford and Associates constructed a decade earlier. In a 2001 interview, CEO Ludwig Georg Braun is blunt about his reasons for such ambitious design: "You just can't set up a world headquarters in poor architecture."

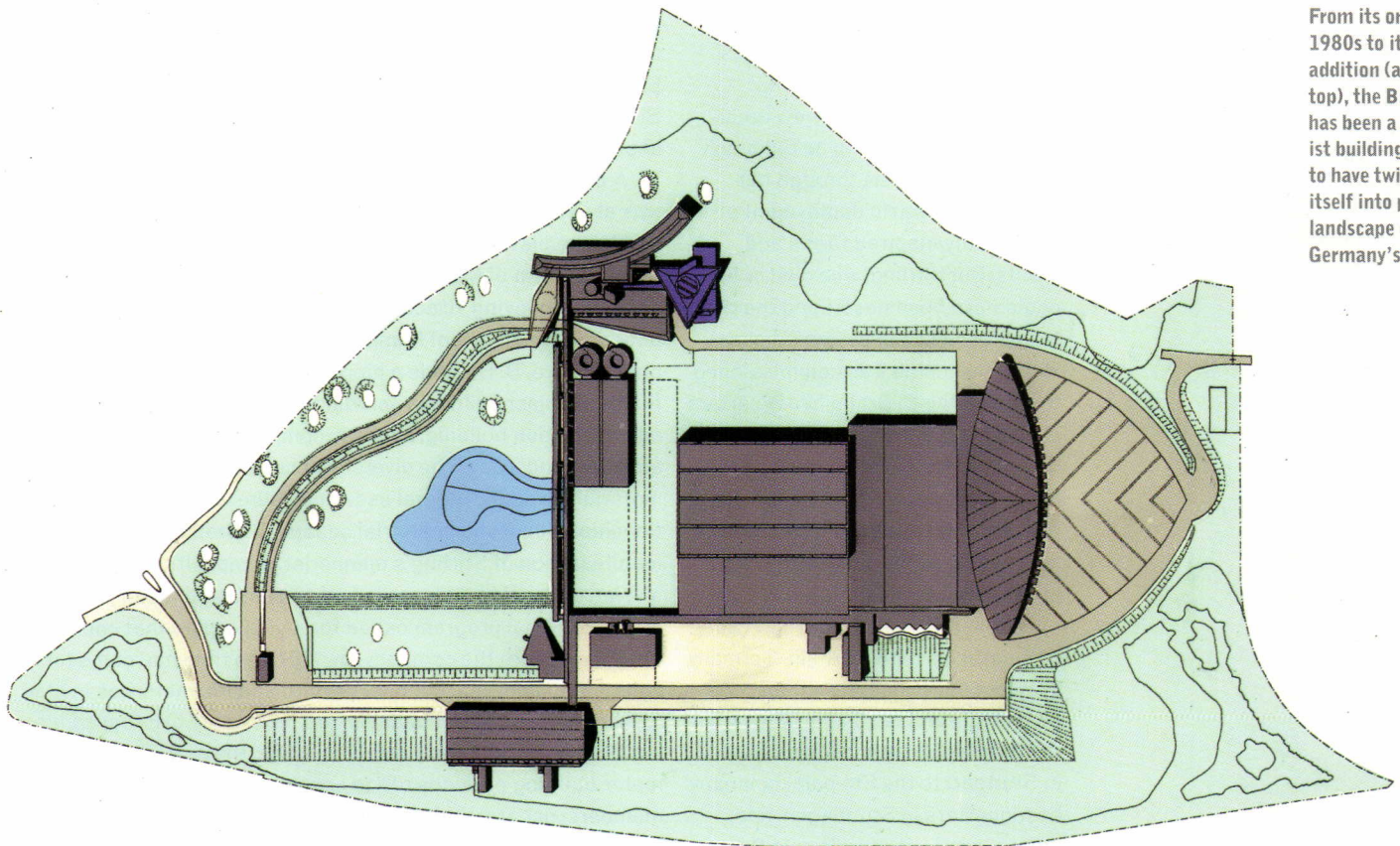
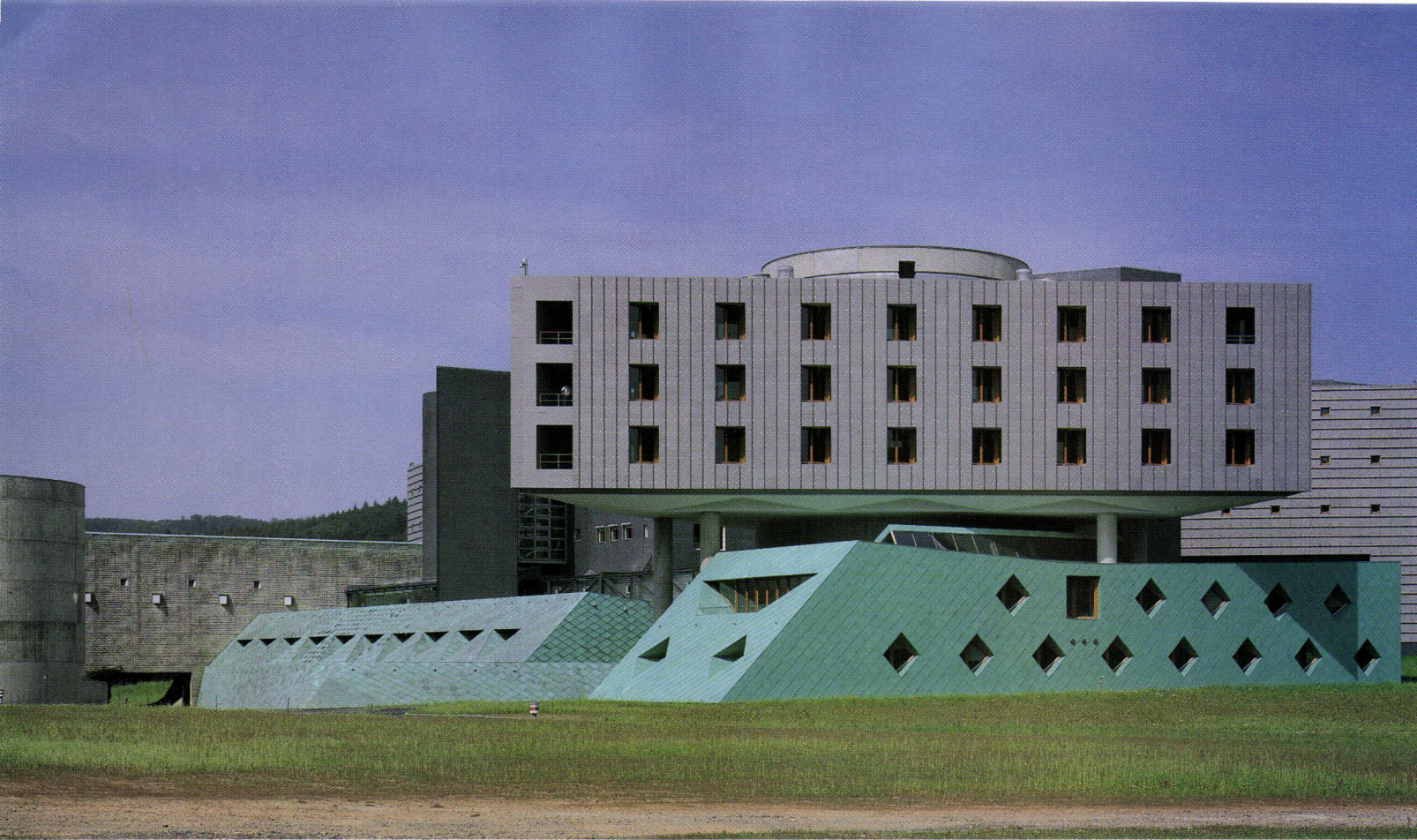
Writing in the mid-1970s, James Stirling commented, "I realize that an interaction between the design for a new building with associations of the past is a dangerous tightrope to walk, with compromise and sentimentality on both sides." He was talking about the relationship between historical and new architecture, a relationship he did much to playfully subvert through his eclectic, eccentric deployment of historically inspired forms and motifs. But Stirling, who died in 1992, could have been describing the challenge faced by his partner Michael Wilford when he was commissioned to expand the B. Braun headquarters in Germany, his mentor's last completed project. Though the past in this case is barely 10 years old, the reunion of the great sorcerer and his apprentice on the same site is rich in echoes and ghosts.

While Stirling struggled to win acclaim in his native Britain, Germany proved a more receptive stage, one full of high-profile commissions from the Staatsgalerie and Music School in Stuttgart to the Sto paint company headquarters in Stühlingen, and, more recently, Wilford's own British Embassy in Berlin. Stirling's design for B. Braun, a commission won,

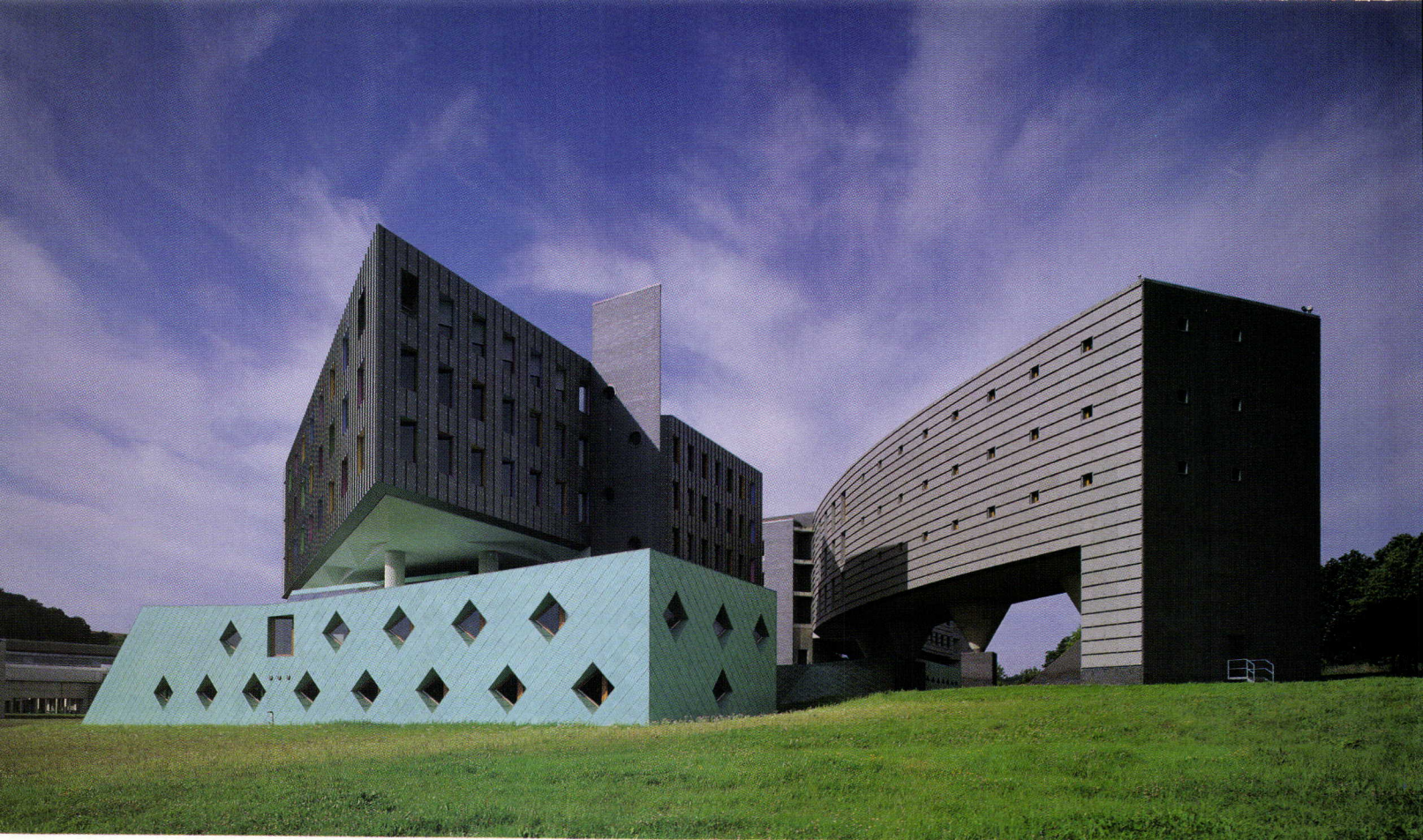
somewhat obliquely, through a competition in the mid-1980s, was no exception. The proposal by James Stirling, Michael Wilford and Associates, with German architect Walter Nägeli, was an also-ran in the competition; but the charismatic client, Ludwig Georg Braun, went ahead and built it anyway, convinced that the design, with a budget three percent higher than that of the winning scheme, would be more than qualitatively justified. Beyond accolades from the design press, the client's faith in Stirling's scheme was rewarded with low rates of employee absenteeism at the plant.

A manufacturer and distributor of medical supplies, B. Braun was always meant to expand and evolve. From its origins as a single chemist's shop established five generations ago in the medieval town of Melsungen, it is now an imposing industrial campus occupying 70 acres in the nearby Fulda valley, a two-hour drive northeast of Frankfurt. Now larger than Melsungen's historic core, B. Braun is a hierarchical assemblage of single-function object buildings—production hall, distribution center, administration building, canteen, computer center—set in a lush, arcadian landscape. The diversity of building forms and cladding materials express internal uses and address external interrelationships. An exotic industrial collage, B. Braun is a classic manifestation of Stirling's mannerist juxtaposition in which he subverts the arid functionalism of conventional factory design.

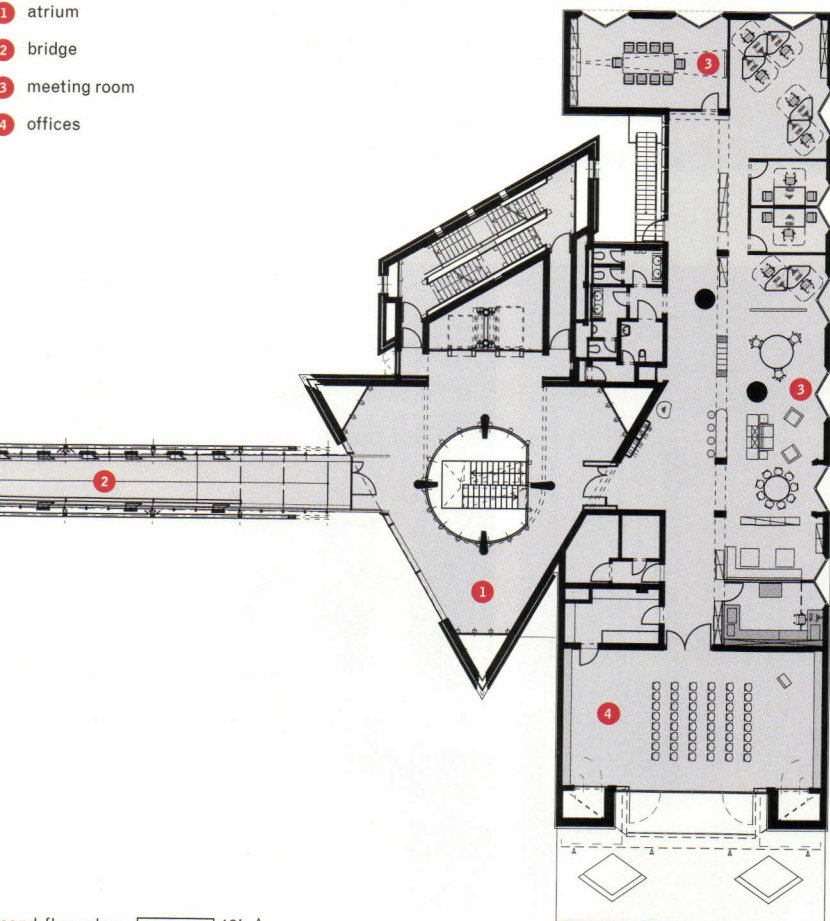
The original program called for a masterplan that could grow along with the company; by 1997, the time had come for a substantial addition. Michael Wilford and Partners was invited to design a European headquarters next to the existing administration building. Prosaically named A2, the new 5,229-square-meter building provides office accommodation for board members, general staff, and the sales team. Employing the same boldly gestural approach to form as the existing offices, as well as a similar palette of materials—reptilian green copper cladding, Staffordshire blue bricks, sandblasted stainless



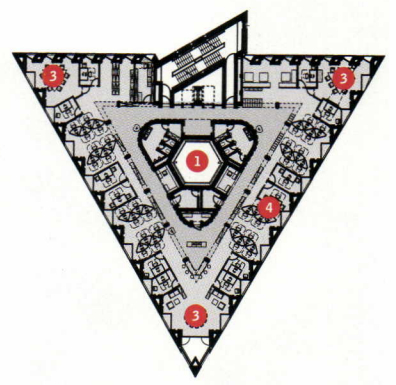
From its origins in the mid-1980s to its latest triangular addition (above and opposite top), the B. Braun campus has been a collage of mannerist buildings, each seeming to have twisted and turned itself into place on the bucolic landscape of Melsungen in Germany's Hessen district.



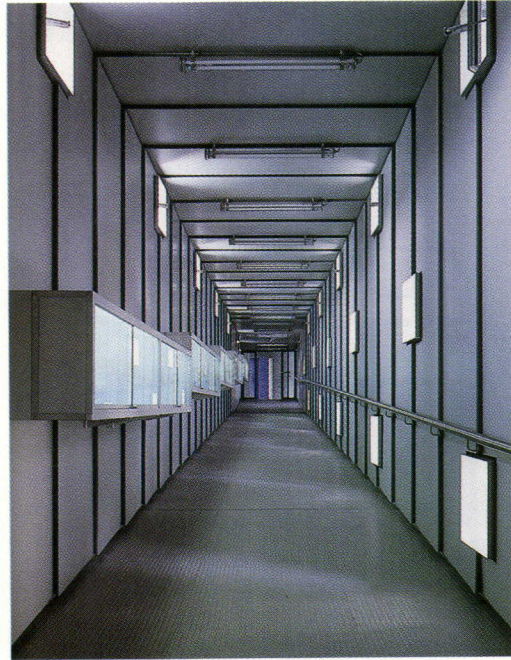
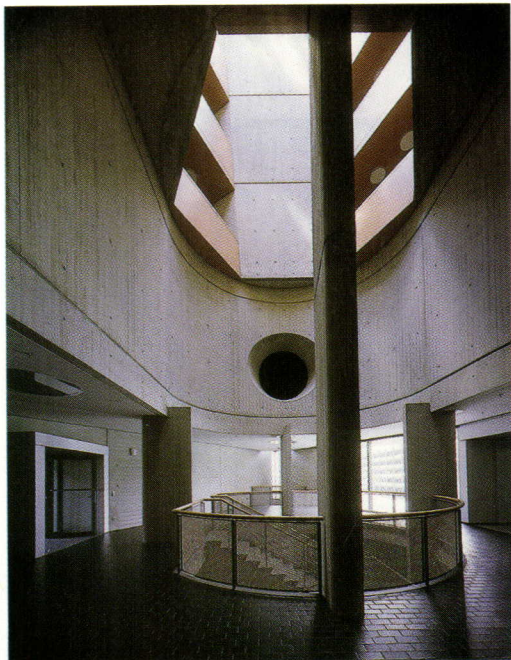
- 1 atrium
- 2 bridge
- 3 meeting room
- 4 offices



second-floor plan 18' Δ



sixth-floor plan





The administrative building emphasizes visual connections to encourage an open and communicative workplace culture. The core of the building is given over to a central atrium, rendered in concrete and glass (opposite top and bottom left and right), off which a bridge (opposite, middle) provides passage between the old administrative building and the new one. The design tries to strike a balance between individual space—glass enclosed offices called “cockpits”—and group spaces (above), such as meeting rooms, lounge areas, and reading rooms.

steel—Wilford’s multifaceted addition has an almost cartoonlike robustness, with elements deliberately beefed up to appear larger than life. A copper-clad two-story base, chamfered at one end, is surmounted by a triangular three-story block on concrete pilotis. Multicolored window reveals animate the block’s shimmering stainless-steel skin. The arrangement of an elevated block hovering over a ground-hugging structure is a reprise of the relationship between the existing offices and the computer center.

At the hub of the triangle is a central atrium of concrete, steel mesh, and glass, described by Wilford as a “washer,” around which the rest of the building turns. The open core is designed to encourage visual communication between floors and also to link the base to the triangular block. Light floods the space, thanks to a sawtooth glass roof. An enclosed bridge connects Wilford’s new building to the existing administration building offices. In the lower portion of A2, linear corridors lead to

enclosed offices arranged along the perimeter. In the block above, office zones are also placed along window walls, with ancillary services assembled around the perimeter of the central core. Office areas are largely open-plan to accommodate American-style “hot-desking” principles, while specially partitioned glass and wood “cockpits” are available for meetings or individual work. It is an unusual configuration for a German office in general and for the B. Braun campus buildings in particular, which are tightly structured around a series of distinct functions and processes.

Some commentators have noted that Wilford’s design does not seem flexible enough to accommodate nonterritorial offices. The client’s original brief called for conventional modular offices, while the requirement for unassigned desks came only after Wilford and his design team developed the scheme. The result, although it reduces the space required per employee from 25 to 13 square meters, is compromised: the office areas seem more like one giant circulation space—ideal for informal interaction and chance meetings, but less satisfactory for serious work.

In the decade since Stirling’s death, Wilford could not be accused of simply rearranging the great man’s tunes. He has addressed Stirling’s colossal legacy with sensitivity and has emerged, with B. Braun and other commissions, as a creative force in his own right. In a recent interview in *Blueprint*, Wilford compared his situation to that of Kevin Roche and John Dinkeloo, who established a clear American identity for themselves following the death of Eero Saarinen, in 1961. Wilford has cultivated his own reputation by synthesizing historic and contemporary influences into his own distinctive spirit and style. Like master, like pupil. ■



A corrugated metal-clad bridge connects the old administrative building to the new one at the second floor. Visual and physical connections within Wilford's new building are as important as the connections between indoors and out (opposite), with balconies in abundance.

ADMINISTRATION BUILDING FOR B. BRAUN, MELSUNGEN, GERMANY
CLIENT: GELIMER Verwaltungsgesellschaft **USER:** B. Braun Melsungen AG **ARCHITECTS:** Wilford Schupp Architekten, Stuttgart **ASSOCIATE ARCHITECTS:** Chris Dyson, Axel Overath **PROJECT TEAM:** London: Charlie Sutherland, Claudia Murin; Stuttgart: Bori Csicsely, Denis Wolf, Martin Braun, Frauke Goldammer **SITE SUPERVISOR:** PPC **STRUCTURAL ENGINEER:** Ingenieurburo Dr. Meyer **HVAC CONSULTANT:** Imtech **CONSULTANT FOR OFFICE CONCEPT:** Veldhoen + Company **GENERAL CONTRACTOR:** Dyckerhoff & Widmann AG, Niederlassung Frankfurt **PHOTOGRAPHER:** Roland Halbe

SPECIFICATIONS

STAINLESS STEEL FACADE: Hebrok **COPPER FACADE:** G+H Montage
WOOD WINDOWS: Kuhn.





CAMENZIND GRÄFENSTEINER'S ZÜRICH TIRE SHOP GIVES A NEW SPIN ON THE SWISS MODERN TRADITION. BY NED CRAMER

THINKING INSIDE THE BOX



The architects convinced the owner of a lakeside Zurich tire shop to show art installations on the exterior of its second-story storage space. On the first floor, patrons and vehicles enter through folding glass doors. The project is bounded by a rail line and a heavily trafficked road, making it a high-profile, if enigmatic, attraction.

When early Modern architects El Lissitzky and Mart Stam visited Switzerland in the 1920s seeking a cure for Stam's tuberculosis, they managed to infect a generation of Swiss practitioners with the tenets of *die neue Sachlichkeit*, or "the new objectivity"—the painstaking, socially minded reduction of architecture to its essential structure and form, typically using standardized manufactured parts. The straightforward process and its inevitably boxlike product perfectly suited a nation of bankers and watchmakers,

constitutionally predisposed to functionality, order, and the bottom line.

Today, the Modernist tradition is so firmly established in Switzerland as to stifle the ambitions of some young architects there. "We've never won a competition [in Switzerland] with anything but a box," says Stefan Camenzind of the Zurich-based firm Camenzind Gräfensteiner. "Introduce angles and people start to get nervous." The problem, then, that confronts progressive Swiss architects like Camenzind and his

partner Michael Gräfensteiner is maintaining the vitality of an 80-year-old tradition of box-making—how to think within the box, more or less literally, without designing by rote.

Not surprisingly, "box" is the perfect descriptor for the two-story tire-fitting shop that Camenzind Gräfensteiner recently completed on the industrial periphery of Zurich. Camenzind calls the wedge-shaped site "a glorified traffic island"; it's a narrow strip bounded on the east by the main shoreline road into the city center

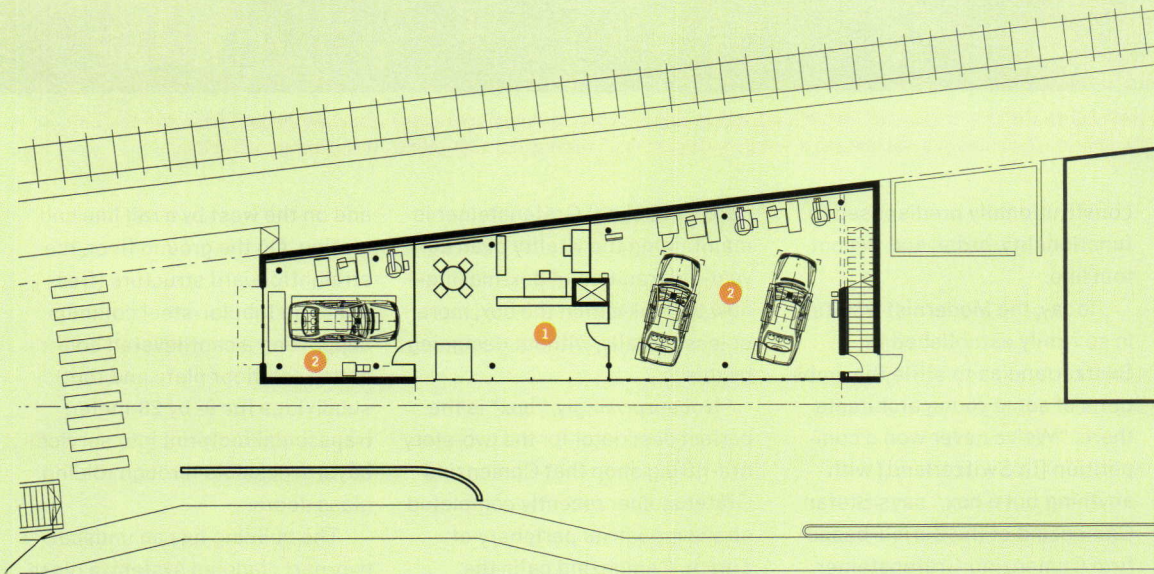
and on the west by a rail line and station. On the ground floor, the straightforward structure (free-standing tubular-steel columns supporting a cantilevered concrete-slab floor plate and roof) subdivides the 9- by 28-meter, trapezoidal footprint into service bays, accessible through folding glass doors.

The building has an unusual, two-part cladding system: a glass curtain wall backed by enameled, insulated metal panels. On the ground floor, the glass and the enameled panels, separated by a



TYRE-FITTING SHOP/ART EXCHANGE, ZURICH, SWITZERLAND

CLIENT: IWAG Distribution **ARCHITECTS:** Camenzind Gräfensteiner **ARCHITECTS:** Stefan Camenzind, Michael Gräfensteiner, Susanne Zenker (design team) **ART INSTALLATION:** Martina Issler **STRUCTURAL ENGINEER:** H. Wunderli Ingenierbüro **MECHANICAL ENGINEER:** Benz + Cie **ELECTRICAL ENGINEER:** R. Meul Elektro **BUILDING CONTRACTOR:** Dietschweiler AG. **CLADDING CONTRACTOR:** Krapf **PHOTOGRAPHER:** Peter Wurmli, Martina Issler



Ground floor plan 10' >

- 1 office
- 2 service bay



Details developed by the architects lighten the boxy structure, which comprises steel-tube columns and concrete slabs. The envelope is double-skinned, with insulated metal panels that are inset slightly from the exterior of the glass curtain wall on the second floor, underscoring the building's dual functions.

17-millimeter gap, cause reflections that contrast delightfully with the more direct, prosaic views into the service bays; on the upper level, the gap between the glass and the panels increases to 500 millimeters, and it is with this 483 millimeter difference that the project becomes exceptional. The upper level is given over to tire storage, which may not seem cause for comment. But because new tires must be stored away from daylight, Camenzind and Gräfensteiner were able to convince their client, a businessman,

to dedicate the upper-level exterior of the shop to art installations. (The first installation, by artist Martina Issler, depicts a swimming woman, with an accompanying text about traveling and homecoming.)

The building essentially bifurcates, vertically. In the daytime, the ground level is more visually dominant, thanks to the reflections in the façade and the activity inside. At night, when the shop is shuttered, the lower-level façade darkens and recedes beneath the illuminated display above. For passersby in cars and on trains,

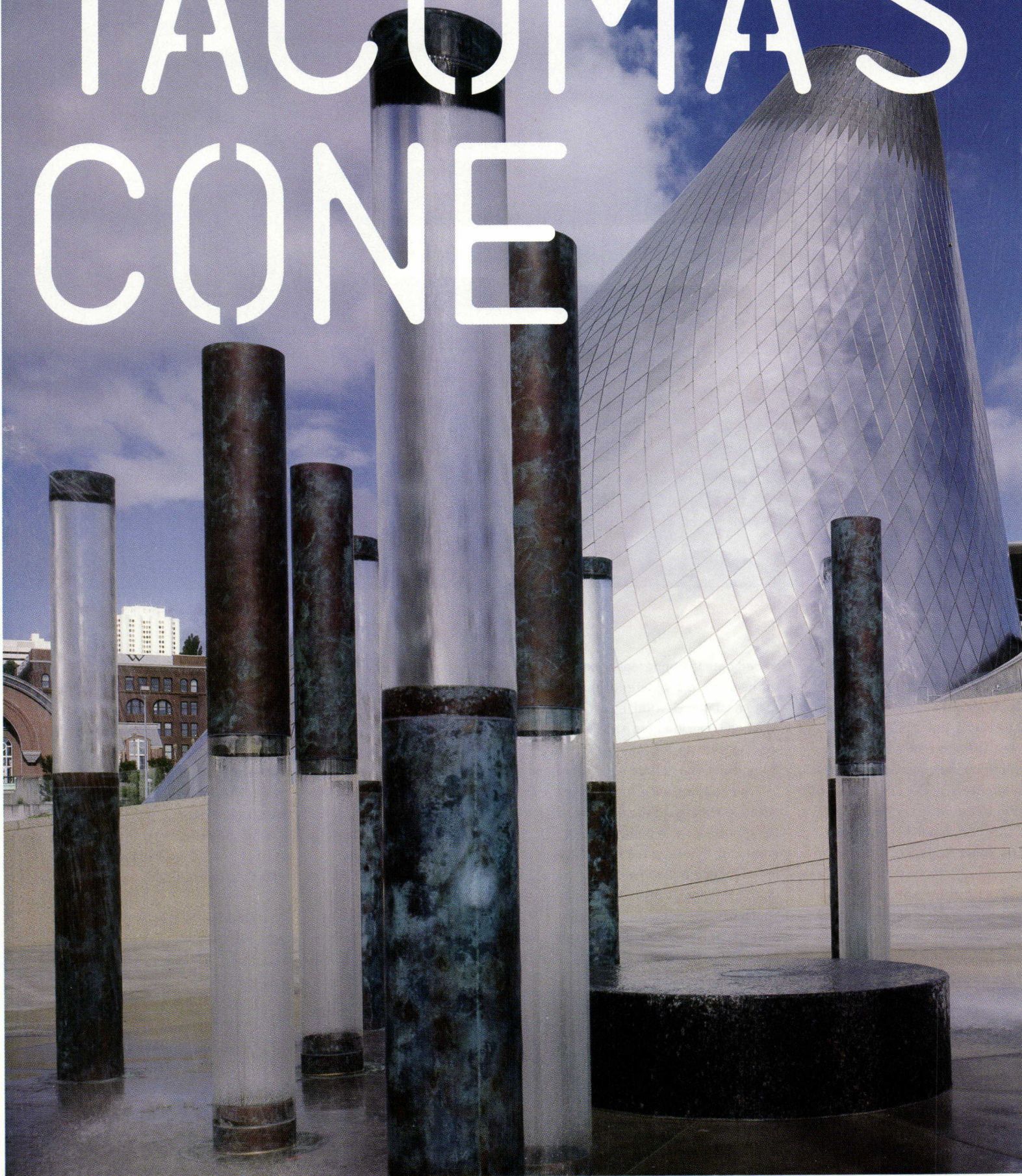
the building becomes an enigmatic attraction—a luminous, image-laden box in an otherwise banal suburban setting.

Other architects have decorated their sheds: Robert Venturi, first and foremost. Closer to home, it's a technique frequently employed by Herzog & de Meuron—at the Ricola warehouse, for instance, with its glass façade etched in a mint-leaf motif. But Camenzind Gräfensteiner's tire shop is unique in that it leaves the task of sign-making in other hands (the architects invited Issler to

make the initial installation, and the shop owner is negotiating with a local art school to act as curator for future ones). Art momentarily trumps commerce, using the architectural device of a 360-degree window-display-cum-billboard to do so. No matter who is responsible for the message, the tire shop is hardly objective. But then neither was “the new objectivity.” ■

Ned Cramer, former executive editor of Architecture, is the curator of the Chicago Architecture Foundation.

TACOMA'S CONE





A NEW CULTURAL LANDMARK CELEBRATES THE PACIFIC NORTHWEST'S NATIVE GLASS ARTISTRY.

BY LAWRENCE W. CHEEK
PHOTOGRAPHY BY
TIMOTHY HURSLEY

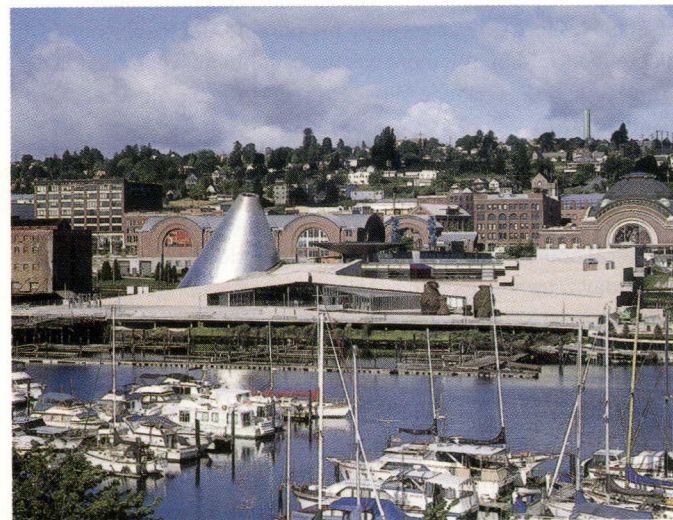
Driving into Tacoma on a clear day for an international press preview of the Museum of Glass, Arthur Erickson noted for the first time that the peak of Mt. Rainier, the Pacific Northwest's signature volcano, sloped in a direction opposite that of his new museum's signature cone. "It's interesting how nature informs art," he said. "I had never known until yesterday that the mountain tilts."

Well, art informs a city, too. Erickson's museum, in concert with a bridge extravagantly endowed with Dale Chihuly glass art, has suddenly tilted metropolitan Puget Sound's cultural center of gravity toward Tacoma, away from Seattle. The Museum of Glass is more evocative, more memorable, decidedly more disciplined, and finally, more worthy of contemplation than Frank Gehry's Experience Music Project in the big city that lies 30 miles north.

This museum is a landmark for downtown Tacoma, one in an increasingly ambitious succession. First came the adaptive rebirth of the curvaceous, Romanesque Union Station into a federal courthouse, and then the renovation of a row of workaday warehouses into a University of Washington branch campus. Next May, Antoine Predock's new Tacoma Museum of Art is set to open, and then, not far off, come two museums of American cars and motorcycles.

Downtown Tacoma, despite its dramatic setting on Commencement Bay, has played janitor's closet to glittery Seattle for a century. It first needed a Superfund waterfront cleanup (which it's getting); and then a civic icon, a snarky rejoinder to Seattle's beloved Space Needle. Erickson has provided it, although for 70-mph freeway contemplation—is there any more critical viewpoint in an American city?—the canted cone could, and probably should, have been half again larger.

The heart, soul, and hearth—literally—of the museum is that 90-foot-tall cone, sheathed in diamond-shaped stainless steel panels. It's called "Jane's Hot Shop" because it houses the infernal appliances of the museum's work: two 2,000-degree furnaces to melt the glass, five "glory holes" to keep it hot while being worked, and five annealers to cool the pieces. Set within



The stainless steel-clad conical structure dominates the museum's massing, orienting passers-by from afar and visitors that cross the "Bridge of Glass" (top and center, above). The complex roof program that greets museum-goers (above) includes ramps, stairways, and reflecting pools that highlight sculpture installations by Patrick Dougherty (opposite) and Howard Ben Tré (preceding pages).

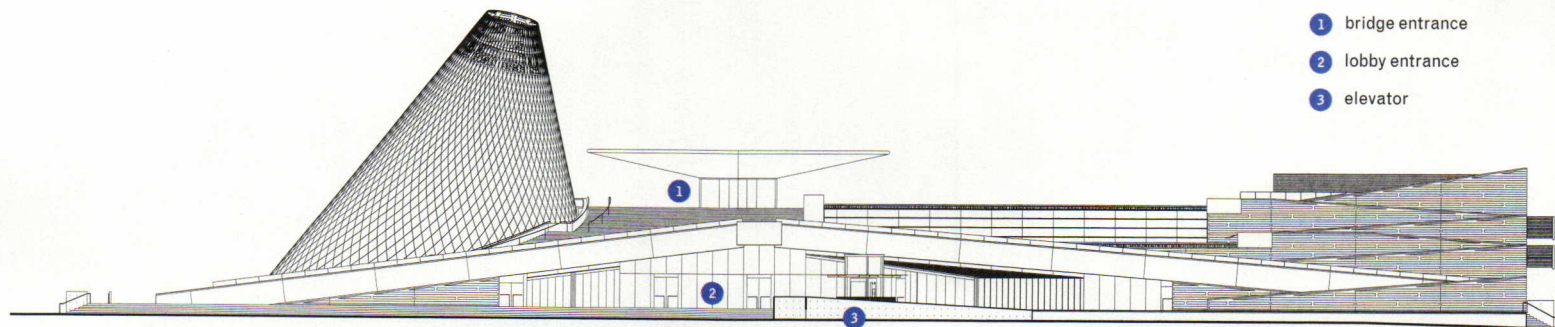
a 138-seat amphitheater, the space also offers large-screen projection TV's for visitors and students to view intimate details of the artists fabricating their glass. (On preview day, a glass artist named—we swear this—Dante was shaping a piece in his personal inferno.) Inside, the cone feels like a gigantic iteration of a Mercury space capsule, but because of its 17-degree northerly tilt, the structure manages to feel both thrilling and disorienting at the same time.

Erickson says the cone's form was inspired not by nearby Mt. Rainier but by the historic sawdust burners of Pacific Northwest sawmills, a nearly extinct feature of today's post-industrial landscape. It was "a way of bringing the memory forward," he says. In fact, the architectural team almost lost the cone to the budget during design. Museum board members were about to kill it when project architect Wyn Bielaska discovered a new book celebrating the conical sawmill burners. Erickson showed it to the board members, and several recalled the forms from their childhood; finally, they approved it.

Without the cone, the museum would be a competent building, elegantly and thoughtfully detailed. The cone, however, noses it into the realm of architectural art and icon. A vast, not-too-functional outside stairway—4-inch risers and a 36-foot width—curls around it, leading nowhere but the rooftop water gardens, but the sensation of winding around the cone, sensing its changing attitude and reflections and apparent disappearance into the sky, are endlessly rewarding.

The cone provokes the museum interior, too. It slouches into the lobby, the café, and a classroom. It's a *presence*, a stainless-steel elephant in the living room, a symbolic heart of the museum, and a reminder of the technical skills that glass art demands.

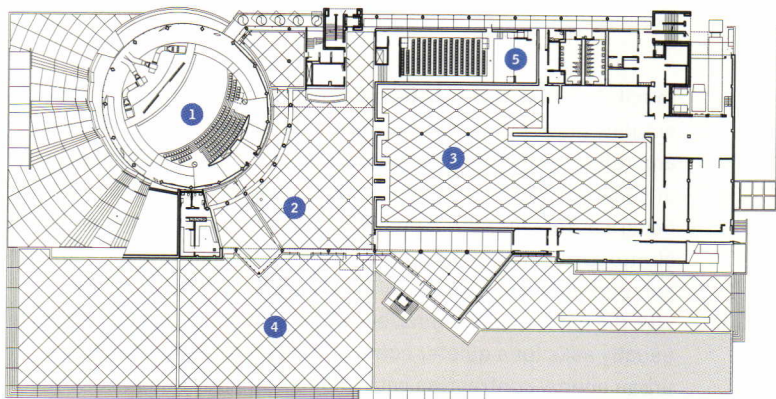
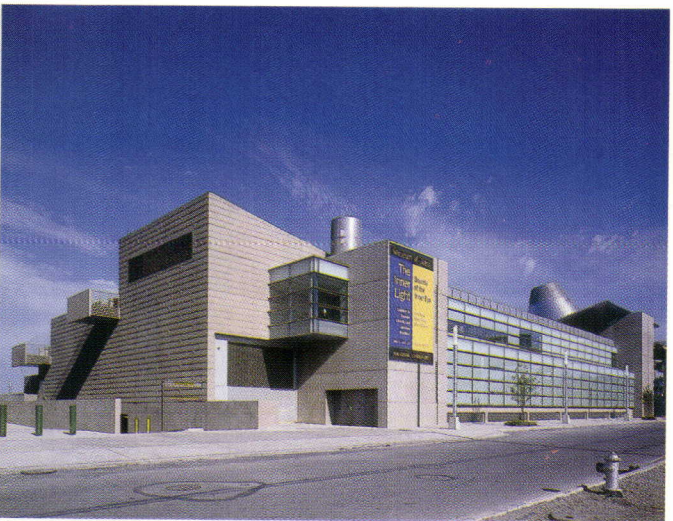
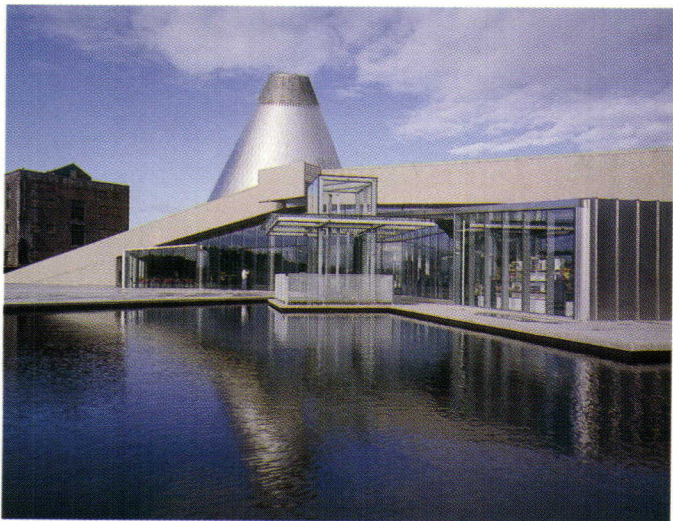
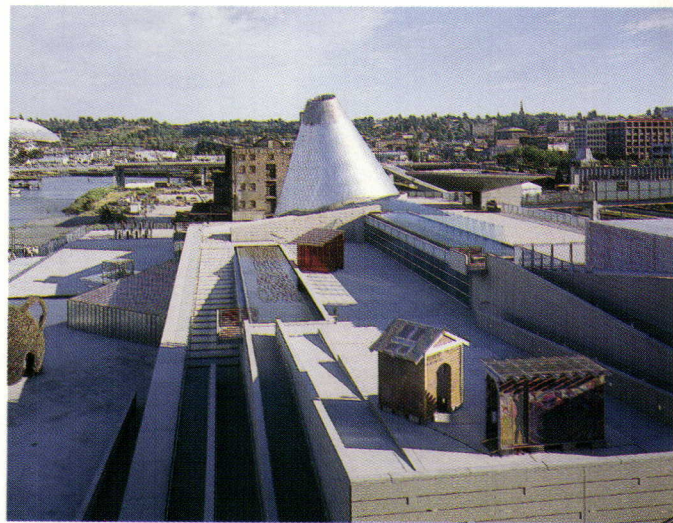
It almost upstages the museum's grand entry, a 500-foot pedestrian bridge that spans a freeway and railroad. Andersson Wise Architects of Austin designed the bridge, and Tacoma native Chihuly fulfilled a \$3 million commission with three clusters of artworks permanently installed on it. Visitors first experience a "Seaform Pavilion," a pergola roofed by hundreds of glass abstractions of amoeba, seashells, sea stars, and



- 1 bridge entrance
- 2 lobby entrance
- 3 elevator

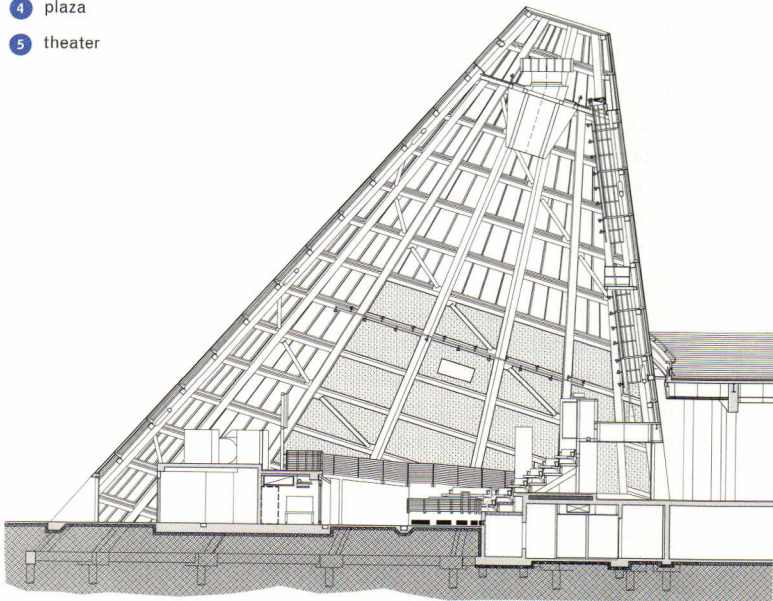
East elevation 20'





Main floor plan 44' >

- 1 studio/amphitheater
- 2 lobby
- 3 galleries
- 4 plaza
- 5 theater



Section through cone 17'

A sculpture by Buster Simpson hovers above one of the roof's reflecting pools, which feature curved edges to enhance reflections of the works (opposite). To arrive at the main entrance to the museum, visitors may descend from the roof by an elegant, monumental staircase (top) or emerge from the parking area below by an elevator enclosed in a glass box (above, center). The west façade is straightforward and urban, with precast concrete and an etched-glass window wall.

**MUSEUM OF GLASS—INTERNATIONAL CENTER FOR CONTEMPORARY ART
TACOMA, WASHINGTON**

CLIENT: Museum of Glass **ARCHITECT:** Arthur Erickson, Vancouver—Arthur Erickson (principal); Wyn Bielaska (project leader)

ASSOCIATE ARCHITECT: Thomas Cook Reed Reinvold Architects, Tacoma
ENGINEERS: Skilling Ward Magnusson Barkshire (structural); Notkin Engineering (mechanical); Sparling (electrical); **CONSULTANTS:** Candela Architectural Lighting Design (lighting); Pentagram Design (signage)

GENERAL CONTRACTOR: Baugh-Skanska **COST:** \$48 million

SPECIFICATIONS: See page 89



The cone is visible throughout the museum: In the café (top), a glass partition offers views from the lobby (above, center). Video monitors in public areas allow viewing of artists at work in the amphitheater (opposite). The galleries (above) feature Spartan finishes, such as the natural concrete floor.

fanciful marine forms. Then come a pair of 40-foot towers, not actually glass but hollow polyurethane rocks designed to suck in and refract sunlight-like crystals, rendering them an impossibly intense glacial blue (on the odd occasions that direct sunlight occurs in Tacoma). And, finally, an outdoor gallery (shielded by shatterproof glass) of Chihuly's familiar writhing vases, snakes, and plates. Woven around all this is the kinetic frenzy of the city, the cars, trucks, trains, even boats, pulsing below. Glass art usually asks for a quieter context for contemplation, but the urban energy contrasting with it here is an intriguing challenge.

Museum visitors who don't choose to plunge into the conical guts of Jane's Hot Shop will find a mostly beautifully detailed and elegant museum. Erickson created a cascade of plazas from the rooftop down to the waterfront, each with its own large-scale glass-and-water sculpture, and together they all tumble toward the Foss Channel, one of Tacoma's principal harbors, to become a symbolic stairway of watery planes. The detailing of the glass doors as they meet the glass façade of the main north entrance is ineffably elegant, and in the universe of exposed ductwork and conduit—is it possible this has, after some 40 years, become a cliché?—Erickson may have created the most fetching rhythms of pipework possible.

Is anything lacking? Well, at a \$48 million budget and 75,000 square feet (which doesn't exactly qualify as modest, despite Erickson's overheard grumblings on press day), it can't compare in monumentality with big-city museums—but size doesn't necessarily matter. The main exhibit space, a substantial commitment of 13,000 square feet, is relatively low and dark, inevitably an anticlimax to the bridge, cone, and outdoor sculptures. Still, in Tacoma, where the rainy season reliably lasts nine months, museum patrons might not experience this as a debit.

In a perfect world of unlimited budgets, the cone would have been executed in glass itself, substantially larger, serving not only Tacoma as an icon but the entire universe of glass art. But in a perfect world, Mt. Rainier would be extinct, not merely dormant, never threatening to alter its own tilt and perhaps inform Erickson's cone in a whole new way. ■





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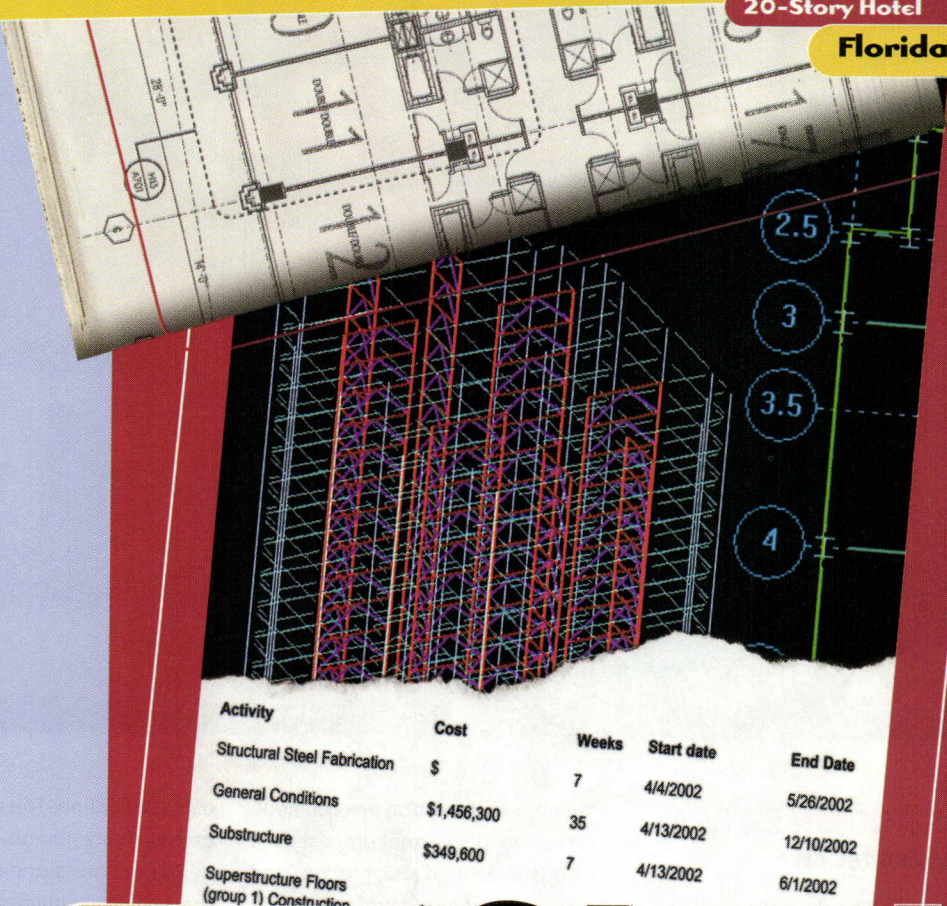


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ENDCOMMERCIAL READING THE CITY

This ambitiously scaled photographic project—that takes the form of a book, an exhibition, and a Web site—provides a visual index of the material culture of contemporary urban life. Its creators—Florian Böhm, Luca Pizzaroni, and Wolfgang Scheppe, whose combined expertise includes design, photography, filmmaking, and language philosophy—spent at least four years in various cities, but primarily New York, digitally capturing the traces of, and interventions by,

humans in the urban environment. The seemingly banal processes of customization, adaptation, and communication—a crate turned into a sidewalk seat by its upending, a lamppost used as a cylindrical bulletin board, and an out-of-order parking meter, both concealed and signaled by its plastic-bag hood—are determined by laws, property relationships, and economic interests: a kind of ad hoc urban planning.

The resulting 60,000-strong collection of images was edited down to a corpus of 1,000 and subjected to a quasiscientific process

of classification. The photographs, perhaps unremarkable seen singly, evince patterns and rhythms that are strangely compelling once arranged into series of analogous types. Documentation of street vendors reveals unifying codes of conduct and equipment—heavy duty sealed plastic boxes are stored under Formica-topped folding tables—seemingly identical citywide.

While some humor is evoked by these samplings of chaotic urban existence, the prevailing mood—that no amount of empirical classification can suppress—is a wistful one. **ALICE TWEMLOW**

EXHIBIT: ENDCOMMERCIAL; STOREFRONT FOR ART AND ARCHITECTURE; NEW YORK CITY; THROUGH AUGUST 25. BOOK: DISTRIBUTED ART PUBLISHERS; DECEMBER 2002. WEB SITE: WWW.ENDCOMMERCIAL.COM



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