

architecture May 1997 \$8.95 usa \$11.00 canada

archi



CHOICE CUTS FROM THE HEARTLAND

Armstrong ceilings solve
the most glaring lighting problems.
And save up to 18% on energy costs.

See the difference an Armstrong Hi-LR™ ceiling can make. Ask for your free
Ceiling Performance Kit and Lighting Research Study. Call TechLine™ at 1-800-448-1405 (option



As early as 1989, a Harris poll identified eyestrain as the leading office health hazard. More evenly dispersed lighting is the answer. And new Hi-LR ceilings are the way to make improved lighting cost efficient. Because of their exceptional 89% reflectivity, these Armstrong ceilings increase the brightness of glare-free lighting while reducing energy costs and the number of indirect fixtures by as much as 18%. They even stay cleaner longer. Can a ceiling make a difference? See for yourself.

The most exciting urban issue in New York City these days is not the falling crime rate or the makeover of Times Square into a family entertainment district. It's the offshore opportunities beckoning from the islands in the city's waterways. Governors Island and Ellis Island in New York Harbor and Davids Island in Long Island Sound are ripe for redevelopment as the result of recent political and legal actions. Architects, planners, and politicians are scrambling for creative ways to transform these islands into places that enrich the lives of New Yorkers. If successful, they could set a positive example for other cities redeveloping offshore properties.

arbitrator appointed by the U.S. Supreme Court recommended dividing the island between New Jersey and New York, with New Jersey deciding the fate of the island's derelict southern half, long a battleground of development plans, including an ill-fated conference center and hotel.

Like most of Ellis Island, Davids Island, off the coast of New Rochelle, is in ruins and threatened by large-scale private development. In 1867, this floating farm was bought by the United States and turned into a military base until 1966. After a brief takeover by a local utility, the island was returned to the city of New Rochelle. It has remained vacant since 1973. The city has entertained various proposals, including Donald Trump's scheme for luxury housing, which Trump abandoned in March.

Transforming these islands into civic amenities will require unprecedented cooperation from private and public interests. To their credit, architects are actively suggesting uses for the islands

Islands of Opportunity

Developing the islands around New York City calls for innovative planning.

The most urgent planning challenge is Governors Island, a 173-acre tract that was once home to Britain's colonial governors. President Clinton has proposed selling this former Army base and Coast Guard station to the city and state for one dollar. But New York must issue a plan for the island this year, or Clinton will rescind his offer, and Congress, which must approve the proposal, will sell the property for \$500 million. Meanwhile, the Coast Guard will vacate the island this summer, leaving behind a Revolutionary War fort, 19th-century houses, barracks, and a public school. Delaying new uses for this island could hasten its deterioration, making it far less enticing to the city or other buyers.

That's what happened to Ellis Island, where historic hospitals and administration buildings now languish in the shadow of the restored immigration hall. Last month, an

by spearheading design competitions for Governors and Davids islands and participating in public workshops. Many sound ideas for preservation and development have emerged from these efforts, emphasizing public spaces and functional variety.

The islands now await a realistic course of action to support their conversions. The Regional Plan Association has offered several excellent ideas, such as using revenue generated by visitors to Liberty and Ellis islands to fund interim maintenance and long-term public uses on Governors Island.

A sustained planning effort shared by government, civic groups, and private interests for each island could benefit the entire region, creating a system of island parks linked to mainland resources. Such concerted planning could inspire new visions for other vacant islands in New York's waterways, as well as for the city itself.

Deborah K. Dietsch

SOPHISTICATED SPLENDOR



Project: Alumni Memorial Union
Marquette University; Milwaukee, Wisconsin

Architect: Opus Corporation
Minneapolis, Minnesota

Brick: Medium Ironspot 77 (Artisan Texture);
Medium Ironspot 46 (Velour Texture);
Economy Norman (3 5/8 x 3 5/8 x 11 5/8)

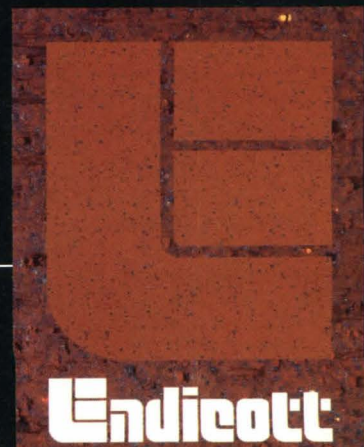
An eloquent expression of artistry is the transformation of idea into reality.

Aesthetically beautiful expressions of artistry are achieved utilizing the unmatched elegance, versatility and durability of Endicott products. From face or thin brick to tile, special shapes, pool coping, Endicott provides design possibilities that are virtually limitless.

For samples or the name of the distributor in your area, contact Endicott Clay Products Company today.

Endicott Clay Products Company

Post Office Box 17
Fairbury, Nebraska 68352
402/729-3315
Fax: 402/729-5804

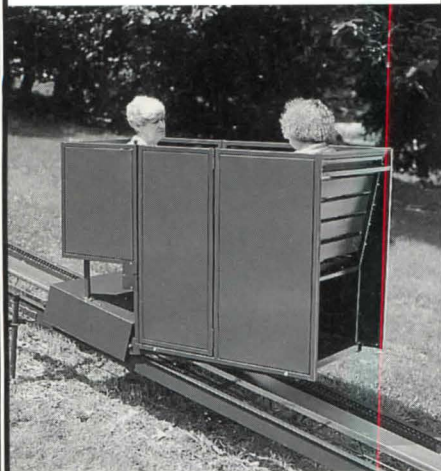


Circle 34 on information card

Endicott



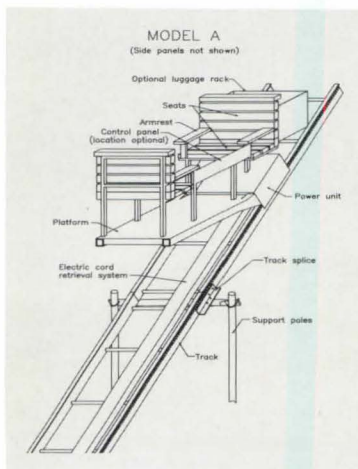
"It's Simply Indispensable!"



That's what you hear owners say about **Hill/Climber**, the personal outdoor transportation system.

Wherever activities exist on multiple levels or things have to be carried up steps.

Wherever easy access is needed to a cabin, boat dock or parking area. Hill/Climber provides the reliable, easily-installed solution.



For free literature, contact:

INCLINATOR
COMPANY OF AMERICA

Dept. 96
PO Box 1557
Harrisburg, PA 17105-1557
Phone 717-234-8065

Circle 38 on information card

Refreshing redesign

Congratulations on the redesign of *Architecture*. The cover graphics and the use of color to divide the sections are terrific. The integration of text and photography is fresh, exciting, and elegant.

Francois de Menil
Francois de Menil, Architect
New York, New York

We all loved the cover of the February issue of *Architecture*—it is fabulous. The new look is so refreshing and full of energy. Great job!

Karen Wight Gould
Gould Evans Goodman Associates
Kansas City, Missouri

Your new design is beautiful. The cover is dynamic, and the typography is clear and purposeful. It is refreshing to witness the clear thinking behind this design. The articles are challenging and substantive. There are many critical issues facing architecture today that need to be seriously discussed and explored. We need a magazine like *Architecture* to foster that dialogue.

Kathy Wesselman
Wesselman Pellecchia Associates
Seattle, Washington

Fred and Ginger

I cannot speak to the function, economy, or weatherproofness of Frank Gehry's National Netherlands Building in Prague (*Architecture*, February 1997, pages 52-63), but the building is downright ugly. Society values beautiful buildings and so should architects (and architecture magazines). While builders and developers are often blamed for the decline in architectural quality, I feel architects have failed to consistently deliver buildings that are esthetically pleasing and valued by the public.

Michael Huston
Lexington, Kentucky

As both an architect and a Fred Astaire and Ginger Rogers enthusiast, I fail to see the connection between that graceful couple and the clumsy lump of the same name featured in your February issue.

Mark Burger
Denver, Colorado

The original Fred and Ginger gave us elegance, grace, and romance, qualities hardly found in Frank

Gehry's new building in Prague. It's a real stretch to equate this perplexing and graceless building with icons of an era that had a fine appreciation of refinement.

James A. Gresham
Tucson, Arizona

Minimalism's versatility

I enjoyed your essay "Minimalism: Design's Disappearing Act" (*Architecture*, February 1997, pages 48-51). While I agree that clients' economic demands force architects to make minimalist virtue out of budgetary necessity, there are other forces at work. Americans have a propensity for material items, as if to avoid any encounter with perceived emptiness.

Within this quantity-based culture, architecture is valued for its scenographic effect and entertainment value. It is in this context that the cult of the architect is on the wane, as both clients and the public fail to find deeper meaning in over-designed, form-driven architecture. If our culture is moving away from superficiality and toward a reductive mentality, architects, as catalysts of change, should embrace it.

Todd Verwers
Peterson + Verwers
San Francisco, California

Hellish contracts

I read "The Contracts from Hell" (*Architecture*, February 1997, pages 72-75) with considerable interest. I was confronted with such a contract this year on a small commercial project. Despite efforts to negotiate the terms of the agreement, my client and I could not reach a compromise, and the job went to someone else. Architects who sign these contracts immediately lose; those who refuse to sign may also be stigmatized. Resolving this matter will be difficult.

Stephen W. Kent
Irvine, California

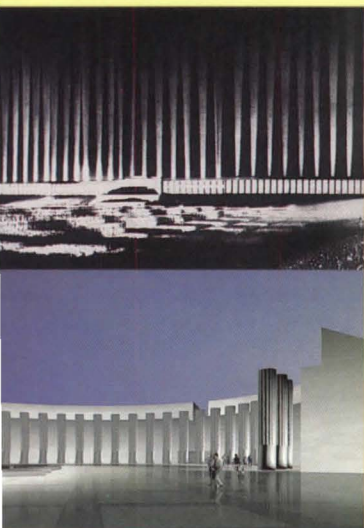
As you allude to in "The Contracts from Hell," these agreements are the result of architects failing to manage themselves and their work. Clients balk at increasingly obscure contract language and wonder about our willingness to stand behind our work. We dismiss their pleas and create cleverly worded

phrases designed to give the appearance of responsibility while actually just shifting it to another party. With that comes another shift—in compensation, stature, and authority. The National Construction Law Center is just the latest in a long line of professionals who are comfortable stepping into the breach that has resulted.

*Daniel J. Lemieux
Washington, D.C.*

Memorial protest

I offer my strong second to your protest of the World War II Memorial (*Architecture*, March 1997, pages 62-63). Without discussing whether Friedrich St. Florian's proposal is Classical (it is not), I would like to stress how precise your comparison of his work to



Speer's 1937 Cathedral of Light (top) and Friedrich St. Florian's proposed World War II Memorial (above).

Nazi architect Albert Speer's truly is (above). I suggest that although Speer's Cathedral of Light, an event staged at his zeppelin field in Nuremberg (1937), was an architectural icon of World War II, it is not an example to be emulated by any architect within the inner sanctum of American democracy.

*James C. McCrery II
Allan Greenberg, Architect
Washington, D.C.*

Your protest of the proposed World War II Memorial begs the larger question of how we memorialize the men and women who have

made the supreme sacrifice for our country. Perhaps a magnificent redwood grove in the California hills would be a far more fitting memorial to our brothers and sisters who fought and died in World War II.

The American Battle Monuments Commission's idea that the Washington and Lincoln memorials are war memorials suggests that they have lost sight of our true national treasures—people. Washington and Lincoln were great leaders who guided this country in times of incredible need.

The preservation of the Mall is as important as the preservation of the buildings that flank it. Memorials should reflect our gratitude to those who keep the country, and these vistas, free. We are overdue in acknowledging the sacrifices of our World War II veterans. Let us do it with some dignity and grace.

*Thomas E. Potter
Architecture YTT
Harrisburg, Pennsylvania*

I appreciated your article about the proposed World War II Memorial's negative impact on the symbolism of our union. For that reason alone, the new memorial would be a sad addition to the Mall.

*Neil E. Davis
Davis Architects
Birmingham, Alabama*

I applaud your protest of the World War II Memorial to the highest degree. I couldn't have said it better. Since this memorial will be a public monument, I suggest that you immediately supply your readers with the telephone and fax numbers of all the public organizations involved.

There are just too many monuments on the Mall. This is not to say that WWII veterans should not be honored, but to turn Washington, D.C., into a literal amusement park of monuments is to belittle their sacrifice.

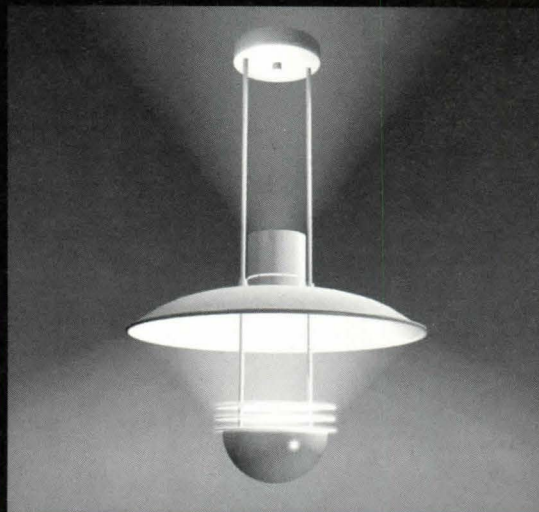
*Richard Battaglia
Portland, Oregon*

EDITOR'S NOTE: Readers should register their opinions of the World War II Memorial with the American Battle Monuments Commission by writing to ABMC, 20 Massachusetts Avenue, N.W., Washington, D.C. 20314-0001; by calling (202) 761-1354; or by faxing (202) 761-1375.

BETA-CALCO INC HIGH PERFORMANCE LIGHTING SYSTEMS



EVORA
2 x 100W CDM-E (ED-17) Ceramic Metal Halide



PALMELA
2 x 100W CDM-E (ED-17) and 1 x 70W CDM-R (PAR-30) Ceramic Metal Halide

beta
CALCO

Beta-Calco Inc
24 Ward Street • Toronto • Ontario • M6H 4A6 • Canada
Tel: (416) 531 9942 • Fax: (416) 531 6199



**Every brilliant design
deserves the right support.**

exhibitions

city	dates	exhibition	contact
Chicago	through June 1	Alvar Aalto's Viipuri Library at the Chicago Athenaeum	(312) 251-0175
New York	through June 27	Beaux Arts New York at the PaineWebber Art Gallery	(212) 713-2885
	through July 8	Toward the New Museum of Modern Art at the Museum of Modern Art	(212) 708-9400
	June 24-October 19	Do-It-Yourself Architecture for the Great Outdoors at the Cooper-Hewitt National Design Museum	(212) 860-6868
Montreal	June 17-September 28	The Architecture of Reassurance: Designing the Disney Theme Parks at the Canadian Centre for Architecture	(514) 939-7000
San Diego	through May 18	A.G. Rizzoli: Architect of Magnificent Visions at the San Diego Museum of Art	(619) 232-7931



A new monograph, published by Harry N. Abrams, accompanies exhibition on A.G. Rizzoli in San Diego.

SFB₂ x UV_R x 100W_{25Y}

What is it?

conferences

city	dates	conference	contact
Chicago	June 9-11	NeoCon 97	(800) 677-6278
Jyväskylä, Finland	August 15-17	Alvar Aalto Symposium	(358) (14) 624-811
Philadelphia	June 16-19	A/E/C Systems '97 computer technology show for the design and construction industries	(800) 451-1196
	June 16-19	Construction Technology '97, sponsored by <i>Architecture</i> and <i>Interiors</i> magazines	(800) 451-1196
Toronto	May 29-June 1	Congress for the New Urbanism V: Access and Community	(415) 291-9804
Tulsa	June 5-8	The Case for Quality: The Public/Private Partnership, sponsored by the AIA Committee on Design	(800) 242-3837



See Intergraph's new 3-D PC, the TD-225, at A/E/C Systems '97 computer technology show.



VERY ADJUSTABLE LEG

We're often asked for table legs with several height adjustments. Here it is. The Roma Leg: It adjusts 10" in 3/4" increments from about 27" to 37"; bottom leveler gives fine tuning.

Changing heights takes just five seconds! Roma is 3-1/4" diameter and **IN STOCK** for immediate shipping in Polished Chrome, Matte Black, or Unfinished. Eight other leg styles available.

DOUG MOCKETT & COMPANY, Inc.

Box 3333 Manhattan Beach, CA 90266 USA

(800) 523-1269 FAX (800) 235-7743

Visit us on the Internet at <http://www.mockett.com>

DESIGN COMPETITION

FOR FURNITURE COMPONENTS, ACCESSORIES AND HARDWARE

The "12th Annual Doug Mockett & Company Design Competition" is seeking entries. The competition is limited to furniture and cabinet components of any sort including hardware and accessories. Entries will be accepted until September 1, 1997, and winner(s) will be announced by December 15, 1997. A unique aspect of the competition is that only First Prizes are awarded, and there is no limit to the number of First Prize recipients. Winner(s) will receive US \$1,000.00 and an engraved trophy, plus a royalty awarded for each design we accept for manufacture. All entries must be mailed to the address below REGISTERED, RETURN RECEIPT MAIL. For further information, please contact us.

DOUG MOCKETT & COMPANY, INC.

Box 3333 • Manhattan Beach, CA 90266 USA

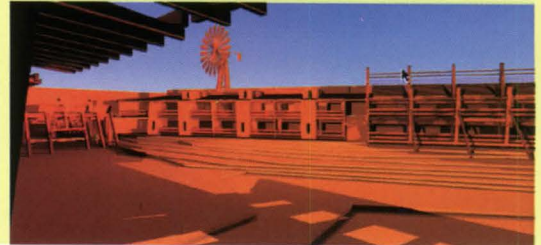
Tel: 310-318-2491 • FAX: 310-376-7650

Visit us on the Internet at <http://www.mockett.com>

competitions

competition	deadline	contact
Ermanno Piano Scholarship , six-month internship at the Renzo Piano Building Workshop in Genoa, Italy	May 31	(39) (10) 6171-1
Escape to Create Fellowships , sponsored by the Seaside Institute	June 1	(904) 231-2421
1997 Graphisoft Prize Student CAD Competition , sponsored by Graphisoft and the American Institute of Architecture Students	June 2 (registration)	(800) 344-3468
Towards a More Perfect Union, 2nd Annual San Francisco Prize to design Union Square	June 6 (entry requests)	(415) 558-6311
Piazza Isolo in Verona, Italy, international competition , sponsored by the Urban Studies and Architecture Institute	June 10 (registration)	(212) 727-2159 fax
Kyoto, Japan, international urban design competition , sponsored by the City of Kyoto	July 31 (registration)	(81) (75) 343-5576 fax

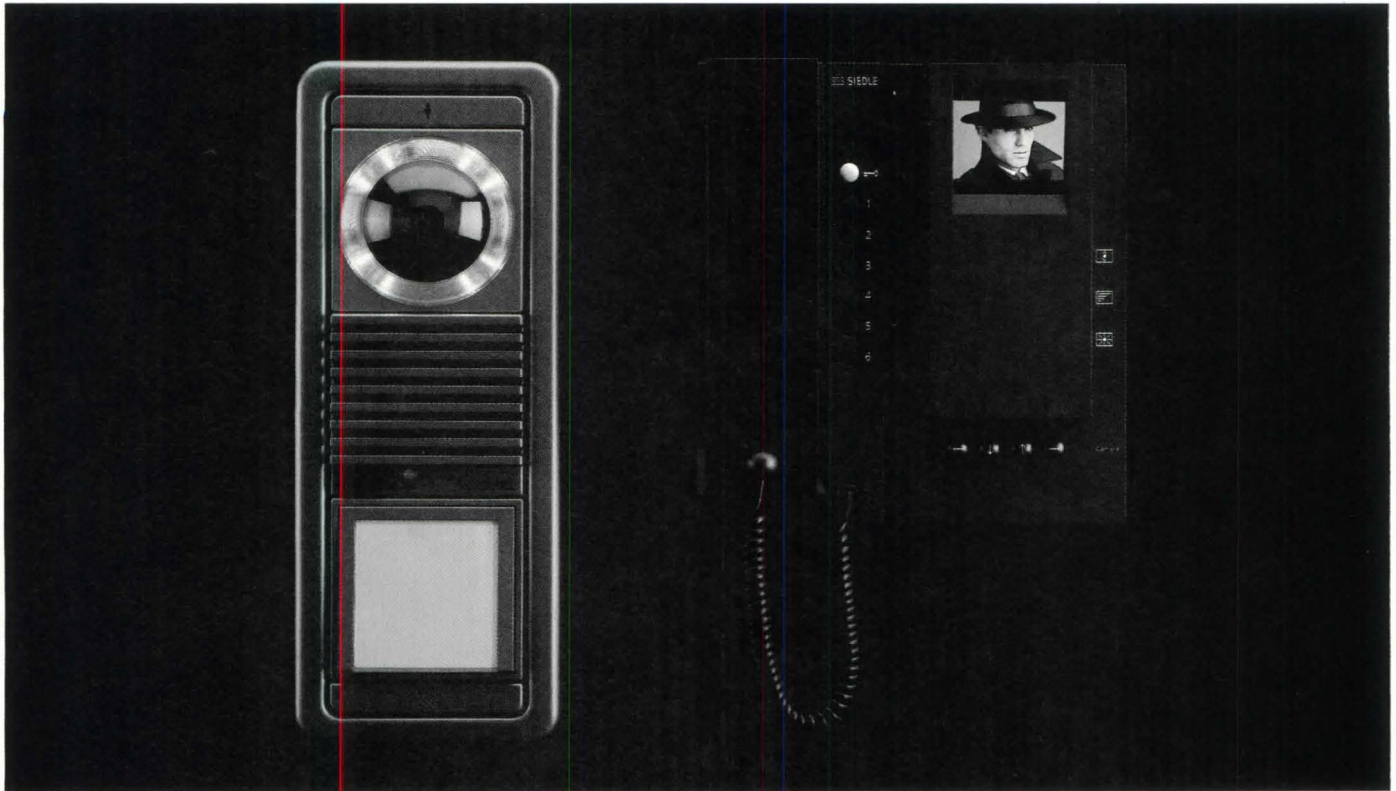
International winner of 1996 Graphisoft Prize by University of Sydney, Australia, students interprets The Eagles' song, "Hotel California."



SFB₂ x UV_R x 100W_{25Y} =

EIFS SOLUTION !

Siedle Video - New Concept - New Price



For secured visitor and entry control.

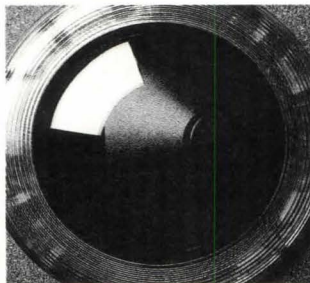
The new Siedle-Video includes:

- 3" black & white /monochrome monitor
- exclusive full active matrix backlit 4" LCD color monitor

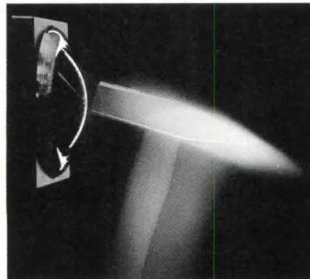
The applications include:

- single family residences
- multi-tenant housing
- industrial, commercial & professional installations
- multiple doors and gates

The innovative video door station cameras and the new monitors with clear and brilliant video pictures, including convenient remote adjustable cameras, offered at an outstanding quality price performance.



Exclusive color & monochrome cameras with full 360° swivel range including +/- 20 degrees



Vandal resistant



Optional caller picture memory (16 pictures)

Send this Coupon to:

Siedle Communication Systems of America, Inc.
750 Parkway,
Broomall, PA 19008
800 874 3353
Fax: 610 353 9716
Please send me further information on Siedle communication systems

Name

Address

State/Zip code

Phone

Circle 50 on information card

SSS SIEDLE

Imaginative design and superb performance begin with

*the **Ultron[®] VIP** nylon*

family of premium carpet fibers.

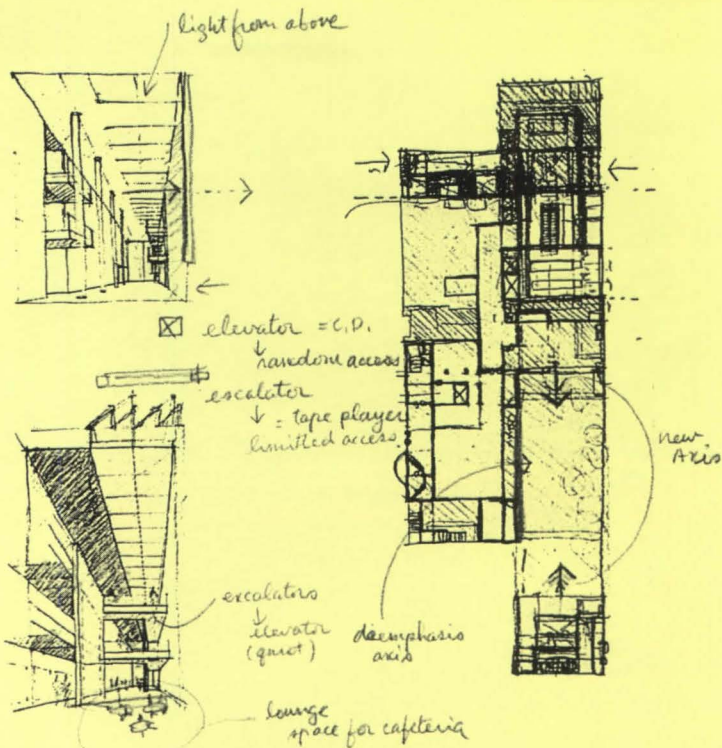
Your vision makes it possible. Our fibers make it happen.



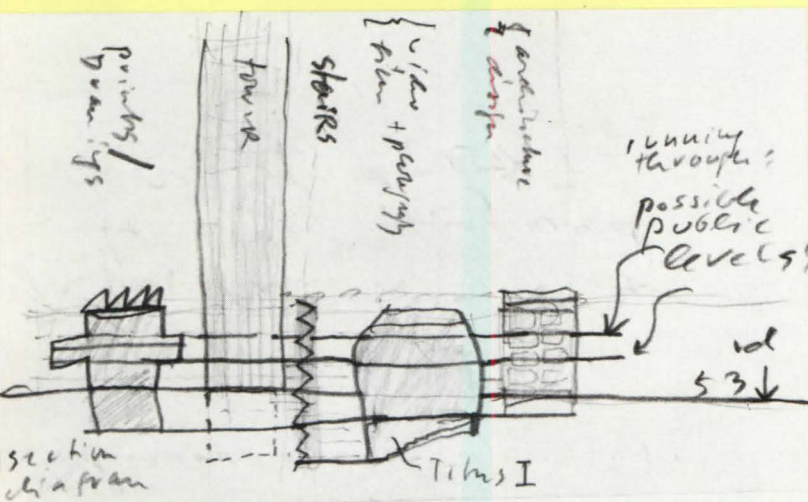
Monsanto
Contract
Fibers

ULTRON[®] VIP
NYLON 6,6

Finalists Announced for MoMA Expansion

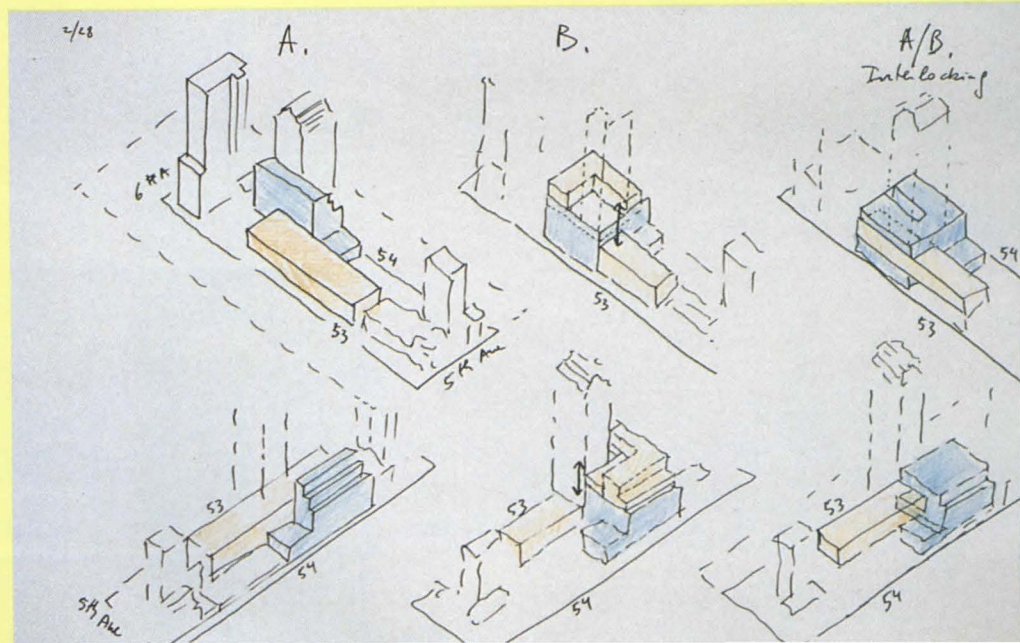


Yoshio Taniguchi



Jacques Herzog and Pierre De Meuron

Bernard Tschumi



This month, the Museum of Modern Art (MoMA) displays its future in "Toward the New Museum of Modern Art: Sketchbooks by 10 Architects," an exhibition on view through July 8. After acquiring the adjacent Dorset Hotel on 54th Street and two brownstones on 53rd Street, the museum held a competition to reconfigure new and old components. MoMA purposely downplayed the competition. It paid \$7,500 to each of 10 architects, selected in January, and required them to fit drawings into a small, flat box that precluded elaborate presentations. Jacques Herzog and Pierre De Meuron of Switzerland, Yoshio Taniguchi of Tokyo, and Bernard Tschumi of New York City have been selected as finalists and will continue to the next phase. The show also exhibits the entries of France's Dominique Perrault; Japan's Toyo Ito; Holland's Rem Koolhaas and Wiel Arets; and New York's Steven Holl, Rafael Viñoly, and Tod Williams and Billie Tsien.

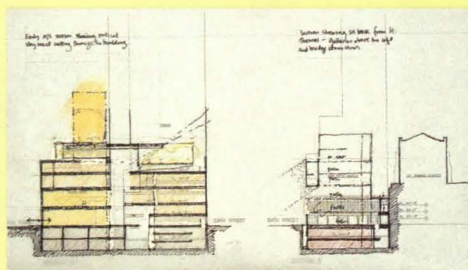
Intimacy, circulation, urbanism, and internal configuration emerge as major issues for the competitors. Koolhaas and Perrault bumped up the scale of their proposals beyond whatever remains of MoMA's fabled intimacy—Perrault with an elevated bridge and a flying top-floor plateau, and Koolhaas with a funicular running at a diagonal through a cube of galleries.

Williams and Tsien's computer-free, homespun presentation got bogged down in detail, disserving the simple but effective idea of a circulation knuckle in the southwest corner of the garden between Philip Goodwin and Edward Durrell Stone's original MoMA and the Dorset block. Too many schemes, including Taniguchi's, split the site down the middle on an east-west axis, dividing the interiors into south and north sections that fail to integrate the Dorset. These schemes also create long canyons that make access between floors a chore.

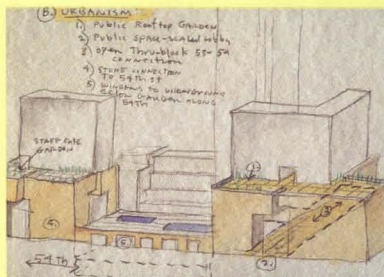
Tschumi's proposal solves the circulation problem most elegantly by extending Johnson's much-loved garden up into the new addition, creating landings and courts that draw in visitors. Herzog and De Meuron's schemes make little organizational sense: One proposal separates principal galleries by two curatorial floors, and the other exiles Johnson's garden to the roof, replacing it with entrance sculpture courts to condition visitors to the art inside.

Granted, the reconfiguration problem was difficult, as the usable building volumes are separated from each other by the garden and the elevator core of the existing MoMA tower. But the fact that not many schemes survived the slalom implies flaws in the competition premise. The museum basically assumed that orthogonal manipulations would yield the richest solutions, on the theory that Manhattan's grid has spawned numerous typologies rich in their ensemble. Mostly, the museum invited architects of the box to solve the problem, confirming its longstanding belief in the white box as the fundamental gallery unit. No architect—except perhaps Steven Holl, who developed curved ramps in his atrium—proposed reinventing or working against the prevalent geometries.

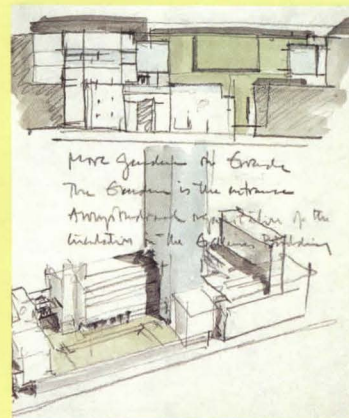
Sadly, 100 years after Frank Lloyd Wright broke the box, MoMA reconfirms it and loses valuable alternatives. Architects of other persuasions are missing from MoMA's list, and the museum's options are now limited as a result of their absence. *Joseph Giovannini*



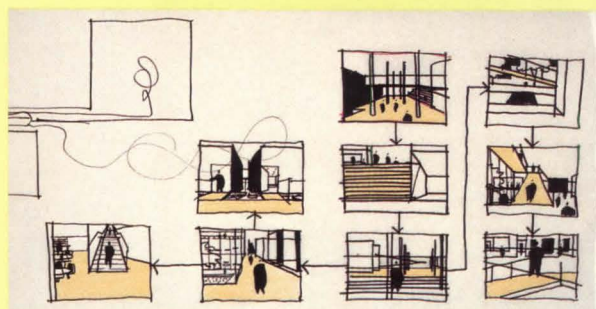
Tod Williams and Billie Tsien



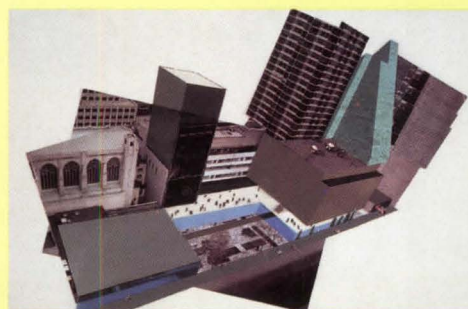
Steven Holl



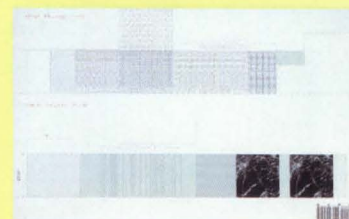
Rafael Viñoly



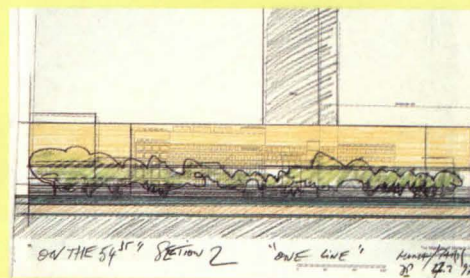
Wiel Arets



Rem Koolhaas



Toyo Ito



Dominique Perrault

HANOVER® ARCHITECTURAL PRODUCTS

Leading the Concrete Paver Industry for 25 Years



Park Center Plaza at Prairie Stone
Hoffman Estates, IL

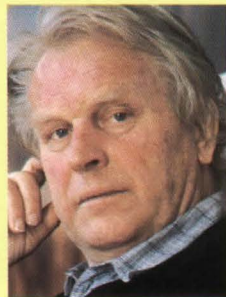
BEING A LEADER ISN'T EASY. FOR TWENTY FIVE YEARS WE'VE DEVELOPED THE BEST PRODUCTS, COLORS, AND TEXTURES. WE ARE KNOWN FOR OUR SERVICE AND SUPPORT FROM DESIGN TO INSTALLATION. WE HAVE MANY IMITATORS, WHICH MEANS WE MUST BE DOING SOMETHING RIGHT. HANOVER® ARCHITECTURAL PRODUCTS CONTINUES TO INNOVATE WHILE OTHERS CONTINUE TO IMITATE.

Innovative Concrete Pavers for Innovative Projects.



Where Concrete and Imagination Meet
240 BENDER Road, HANOVER, PA 17331
(VOICE) 717-637-0500 (FAX) 717-637-7145
<http://www.hanoverpavers.com>
Circle 58 on information card

Norwegian Architect Wins Pritzker Prize

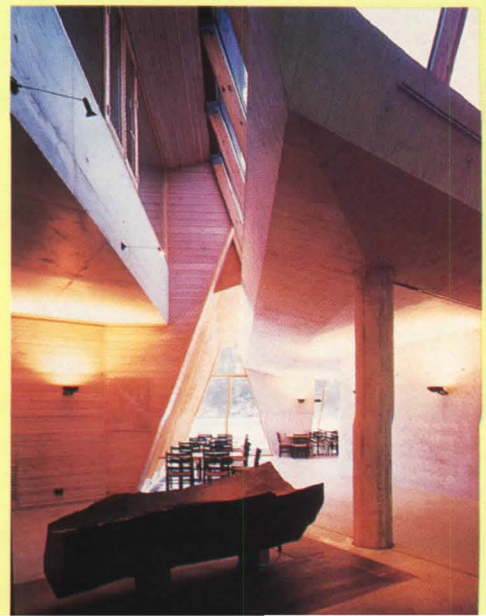


Sverre Fehn has been named the 1997 Laureate of the Pritzker Architecture Prize, succeeding the 1996 recipient, Rafael Moneo. The Oslo, Norway-based architect is well-regarded in Europe, but his work has received little recognition in the United States, apart from a 1984 monograph, *Sverre Fehn: The Thought of Construction*

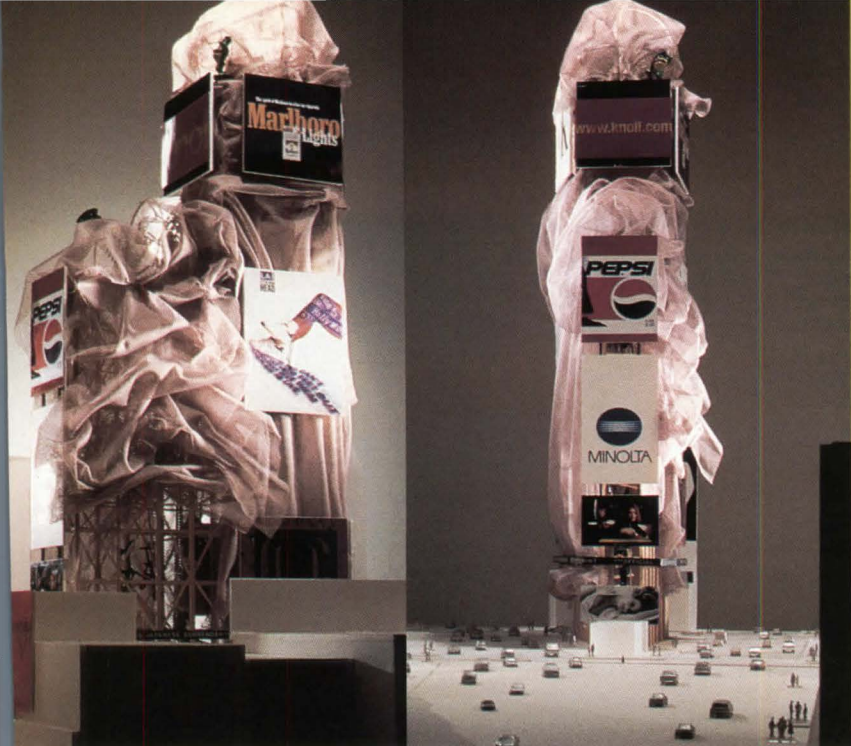
(Rizzoli), and inclusion in exhibitions at the Museum of Modern Art in 1968 and the Architecture Association of Minneapolis in 1983.

The Pritzker jury lauded Fehn for "giving Modern architectural form to elements of his native Norwegian landscape." Fehn apprenticed in the office of Jean Prouvé and acknowledges a debt to Le Corbusier, Ludwig Mies van der Rohe, and Frank Lloyd Wright. "For me, there is no architecture without construction," the 72-year-old architect maintains. "We work with our alphabet—materials such as wood, concrete, bricks. With them, we write a story which is inseparable from the structure. And the structure is supported by the poetic idea."

Most of Fehn's major projects are located in Scandinavia, including the 1991 Glacier Museum in Fjaerland, Norway (below), and an extension of the National Theater in Copenhagen, Denmark, now under construction. An exhibition of the architect's work opened last month at the Basilica in Vicenza, Italy. Fehn will receive the Pritzker Prize during a May 31 ceremony at 1989 Pritzker Laureate Frank O. Gehry's Guggenheim Museum in Bilbao, Spain. N.C.



PHOTOS COURTESY OF THE PRITZKER ARCHITECTURE PRIZE



Gehry drapes One Times Square in translucent wire mesh and exposes steel frame.

Times Square striptease

Frank O. Gehry & Associates' renovation of One Times Square into a Warner Brothers superstore promises to make Times Square sexy again. The 22-story building, currently vacant, is best known for the Sony Jumbotron and the New Year's Eve countdown ball. Gehry's scheme, unveiled last month, turns the former 1904 Times Tower, stripped and reclad in 1962, into an animated clock tower. It offers witty commentary on the history of the building and Times Square's checkered character.

Gehry exposes the building's original structural skeleton by stripping its Modern curtain wall and replacing it with an undulated, translucent metal mesh. The architect removes the first eight floors, creating a public plaza with a sculptural glass entrance to the underground store. Elevators lead to a rooftop restaurant and bar. The remaining floors become a time-telling playground for animatronic Warner Brothers cartoon characters, which move through the building's exposed steel frame once an hour, highlighted by laser lights and smoke screens.

The result is suitably theatrical and in keeping with current guide-

lines for Times Square signage and illumination. Immediately apparent is the clock motif, recalling the square's moniker (renamed in 1913 to honor the building's original owner, *The New York Times*), the building's new tenant Time Warner, and the square's function as site of the world's biggest New Year's Eve party. More obscurely, the cartoon characters' mad caperings recall a skit from television's classic program *Your Show of Shows*, in which Imogene Coca and Sid Caesar hammed it up in a gigantic clock—a source Gehry considers more sophisticated than Warner Brothers' "apple pie humor."

In reinventing the building's curtain wall as a translucent veil, Gehry performs an elaborate architectural striptease in Times Square, offering tantalizing glimpses of this landmark's naked structural form and a subtle reminder of the district's banished sex industry. Unfortunately, there are no guarantees that the project will be built. Time Warner's Vice President for Marketing and Publicity Karine Joret maintains the commission is simply a "preliminary exploration," but is quick to add that "both parties are continuing to talk." N.C.

JOSHUA WHITE

Bold Colors. Classic Lines. Perfect Fit.



It's the timeless look of an EFCO® storefront. Take your pick of 21 standard colors or unlimited custom shades. Coordinate with your EFCO windows and doors. And enjoy the advantages of easy-care aluminum for years of wear. We'll match your specifications exactly to achieve the best possible custom fit.

Contact us at 1-800-221-4169 or <http://www.efcocorp.com> on the Web for information on storefronts and other aluminum glazing systems that flatter your design.

Circle 60 on information card



WINDOWS
CURTAIN WALLS
ENTRANCES
STOREFRONTS

Holy **Holl** in Seattle

Seattle University (SU), a small, Jesuit-operated school east of downtown Seattle, has never been known for its architecture. The modest, multiblock campus comprises generic educational buildings and nondescript green spaces. By contrast, the University of Washington, a few miles north, has been steadily adding an impressive collection of buildings and public spaces to its already cohesive setting.

But last month, SU upstaged the larger institution by dedicating the completion of the St. Ignatius Chapel. Designed by Steven Holl, a Washington native who now practices in New York City, the chapel has been closely watched throughout the design and construction process. (Seattle-based Olson Sundberg Architects ensured that Holl's vision carried through to the details.) Before the first shovel was turned, articles about the 6,000-square-foot building had been published, and the Museum of Modern Art in New York purchased the model for its collection. Now that this small, one-story building is finished, was the fuss warranted? Well, yes.

Holl worked closely with students and Jesuit priests, building and tearing apart numerous models in efforts to infuse the design with religious symbolism. Indeed, the completed chapel has an engaging spirituality rarely found in contemporary buildings. It



Altar is illuminated by light shining through colored glass and against colored planes (above).

JAMES F. HOUSEL PHOTOS

offers a traditional sense of religious space with its spartan, vaulted interiors, yet ignores most of the conventional rules of formality, symmetry, and order in favor of an eccentric composition.

Holl shaped the structure into the form of seven "bottles of light," as he calls them. Each symbolizes a particular element of the Catholic liturgy. One of these forms is a campanile that marks the corner of the reflecting pool to the south of the building. The other six consist of great, curving skylights that illuminate the interior spaces. The glazed opening of each skylight features one distinctly colored pane. A partial wall, its reverse painted the colored pane's complement, obscures the skylight to the interior.

The combination of direct and reflected colors, and the various locations and intensities of sunlight creates a constantly changing, ethereal effect on the interior walls. Thanks to this religious context, Holl has achieved a more refined, mystical application of his theories of light, first explored in his 1992 Manhattan office interior for D.E. Shaw & Company. Moving and intimate, the chapel successfully expresses spiritual contemplation. *Mark Hinshaw*

Mark Hinshaw writes for the Seattle Times.



Lightwells punctuate stained-concrete facade of Holl's St. Ignatius Chapel (above). Holl designed carpet in narthex (left).





WHITNEY COX PHOTOS

HHPA restored plaster ornament, replaced seating boxes.

Broadway Disney Rose

The historic New Amsterdam Theater reopened its doors last month as the Walt Disney Company's Manhattan showplace. Located next door to the Disney Store on 42nd Street in Times Square, the 1,800-seat theater underwent an extensive two-year renovation by Hardy Holzman Pfeiffer Associates to bring it back to its 1903 Art Nouveau splendor. The architects stabilized the original

steel structure; installed new HVAC systems and rest rooms; replaced seating boxes; and restored decayed murals, wood paneling, terra-cotta ornament, and plasterwork. Disney plans to stage live events and screen full-length animated features at the theater, including the June 14 premiere of the movie *Hercules* and the fall premiere of the musical *The Lion King*. N.C.

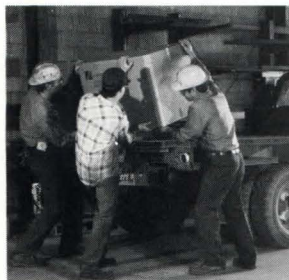
52 | architecture: may 1997

Union Square Competition

San Francisco's Union Square may soon get a makeover. The plaza at the heart of the city's downtown commercial district is the focus of an urban design competition announced in March. "The square is a left-over space, practically inaccessible," explains Competition Project Manager Evan Rose, who hopes the contest will spur ideas for integrating the square with its surroundings. The competition is sponsored by the Union Square Association; the City of San Francisco; Macy's department store; and the recently founded San Francisco Prize, a biennial design initiative of 12 organizations, including local design organizations, the San Francisco Museum of Modern Art (SFMOMA), and the California College of Arts and Crafts. Entries are due July 7.

A jury comprising SFMOMA Design Curator Aaron Betsky, graphic designer Sheila Levrant de Bretteville, San Francisco Planning Department Director Gerald Green, urban designer Allan Jacobs, industrial designer David Kelley, architect Thom Mayne, Macy's Vice President Louis Meunier, and landscape architect Achva Benzinberg Stein will select the winning entry in August. The city will consider commissioning the competition winner to redesign the square. N.C.

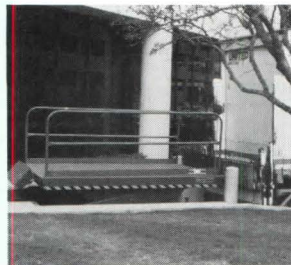
Every Dock Needs A Lift



THIS — OR — THIS

Avoid back injuries and increase productivity

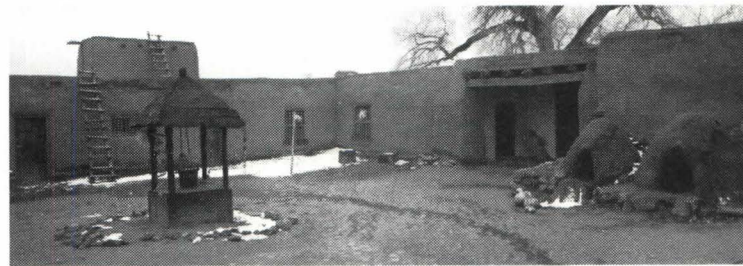
If you don't have a loading dock or your dock is too high or too low, you need a versatile Advance Superdok. Call 1-800-THE DOCK for FREE information.



ADVANCE LIFTS

Advance Lifts, Inc., 701 Kirk Road, St. Charles, IL 60174 (630) 584-9881

IT'S DISCOVERING WHAT THIS COUNTRY WAS LIKE BEFORE IT WAS CALLED AMERICA.



What is historic preservation?

It's your memory. It's our history. It's worth saving.

NATIONAL TRUST FOR HISTORIC PRESERVATION 1 800 289 7091
1785 MASSACHUSETTS AVENUE, N.W. WASHINGTON, DC 20036

Circle 62 on information card

Remembering Roosevelt

More than 50 years since it was approved by Congress, the national memorial to President Franklin Delano Roosevelt will finally be unveiled this month on a 7.5-acre site between the Jefferson and Lincoln memorials in Washington, D.C. The sprawling memorial, designed by landscape architect Lawrence Halprin, comprises a series of four outdoor rooms. They are defined by red granite walls and symbolize each of FDR's terms in office, with commemorative sculptures by artists including Robert Graham and George Segal. None of these artworks depicts the president, disabled by polio at the age of 39, in a wheelchair. Hundreds of demonstrators, many of them disabled, are expected to protest the omission at the May 2 opening. And 16 of FDR's descendants have released a statement bemoaning the "disservice to history and the public's interest if the impact of polio on the man were to be hidden." The Memorial Committee has refused an offer by the FDR in a Wheelchair Campaign to raise funds for an additional statue. *N.C.*



TERRY ADAMSON/AL PARK SERVICE

Memorial (left) borders Washington, D.C.'s Tidal Basin (below).



RAECKLUND

High Standards. High Concrete.

Quality. Innovation. First-rate Service. Value Engineering.

Innovation in product development combined with quality and service has earned High Concrete the position of industry leader, setting the highest standards.

- Parking Structures Systems
- Industrial/Commercial Wall Systems
- Architectural Facade Systems
- Prison Systems
- Stadium and Arena Systems



Liberty Place, Phase II
Philadelphia, PA

Patterson Street
Parking Garage
Patterson, NJ

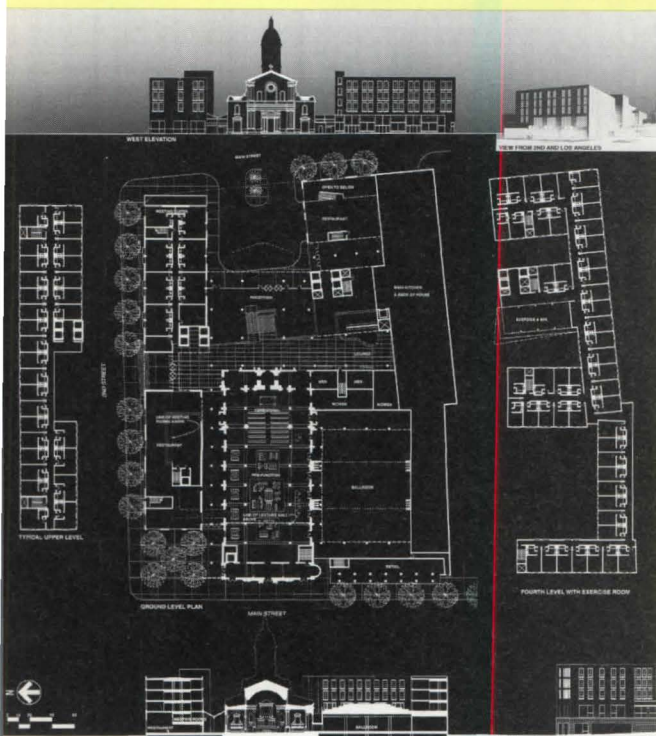
**HIGH CONCRETE
STRUCTURES, INC.**

125 Denver Road
Denver, PA 17517
(717) 336-9300
FAX (717) 336-9301
1-800-PRECAST
1-800-773-2278
A Division of High Industries, Inc.

"We Set the Highest Standards."

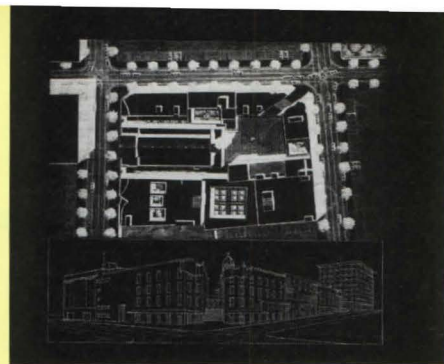
Call 1-800-PRECAST to receive pictorial guides and design aides for your next project.

Recycling a Los Angeles Cathedral



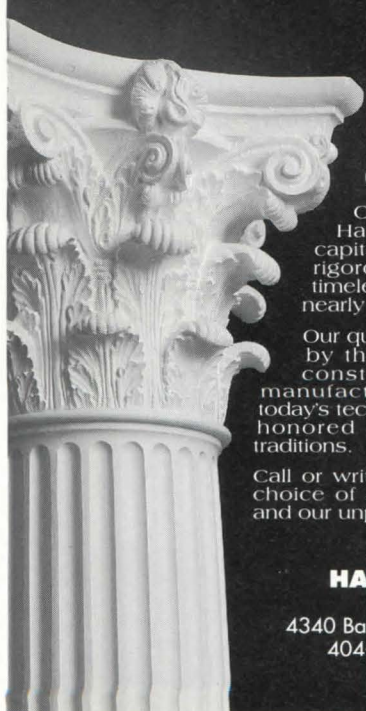
What to do with a used cathedral? A group of 16 Los Angeles architects and urban designers suggest that the former Cathedral of St. Vibiana in downtown L.A. be reused as housing, a hotel, a regional "faith center," a performing arts center, a Japanese trade mission, and even an office of the U.S. Immigration and Naturalization Service. The group exhibited their work in March at the University of Southern California (USC). Adaptive reuse of St. Vibiana's became an urgent issue last September when the Archdiocese of Los Angeles announced that it would demolish the 121-year-old cathedral in favor of a new building. The Los Angeles Conservancy, which had feuded publicly with the archdiocese over the future of the church, issued a request for proposals last December, and selected a group assembled by USC in January.

The nine schemes in the show are a rich study in urban design, as well as in altering a building as typologically fixed as



Johnson, Favaro Architects' faith center (above) and hotel by Istanbulu and Kaliski (left)

a cathedral. They are intended to spark public discussion, and perhaps turn the head of a developer. Among the most contextual projects are Aleks Istanbulu and John Kaliski's proposal for a hotel. Refreshingly anti-contextual is Daly, Genik's aggressive immigration tower, an ironic statement in a district dense with Central American refugees. Other participating designers are Janek Bielski; Moule and Polyzoides; Johnson, Favaro; Roger Sherman; Barton Myers & Associates; Moore Ruble Yudell; Martin Weil; and Trautmann and Lin. *Morris Newman*



Architects' Choice for Classic Authenticity

Classically correct in design, Hartmann-Sanders columns and capitals have maintained the most rigorous standards - based on the timeless Orders of Architecture - for nearly a century.

Our quality and durability is enhanced by the patented Koll's Lock-Joint construction and our unique manufacturing process which adds today's technology to one of the truly time-honored and artistic architectural traditions.

Call or write today. Ask about our wide choice of designs, styles and materials and our unprecedented ten-year warranty.

HARTMANN SANDERS

4340 Bankers Circle • Atlanta GA 30360
404-449-1561 • 800-241-4303
FAX 404-449-5875

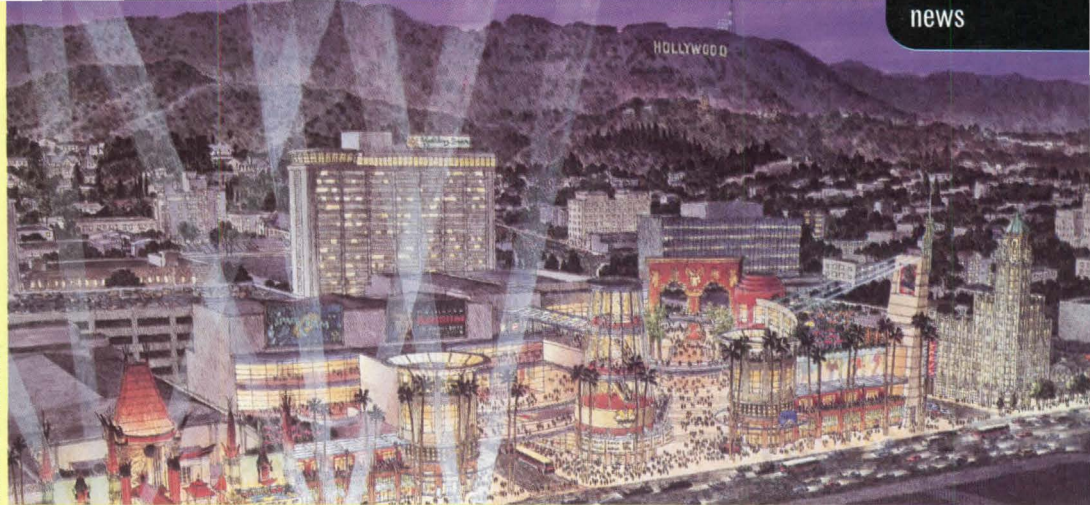
AIA MEMBERS PREFER

architect

Hollywood Comeback Continues

Nine million tourists arrive in Hollywood each year, but they find little more than the concrete handprints at Mann's Chinese Theater on Hollywood Boulevard to satisfy their search for star-studded history. Now Hollywood's decade-long attempt to stage a comeback shows new momentum in two entertainment projects flanking the theater.

Proposed for a lot immediately east of the theater is a \$145 million shopping and entertainment project at Hollywood and Highland, located above the Metro Rail subway station currently under construction. Proposed by TrizecHahn Centers of San Diego, the 210,000-square-foot project promises a "studio" and specialty retail, restaurants, and a 12-screen multiplex theater. The scheme by Ehrenkrantz & Eckstut Architects is notable for a widened sidewalk, presumably to accommodate the busloads of tourists arriving hourly at the Chinese Theater.



CARLOS DINIZ ASSOCIATES

Ehrenkrantz & Eckstut's mixed-use complex abuts Mann's Chinese Theater (left) on Hollywood Boulevard.

Another interesting touch is a staircase leading to a pair of arches framing a view of the famed Hollywood sign to the north in the Hollywood Hills. Approved by the city council in early April, the developer has entered a 180-day period of negotiation with public agencies to work out the details. Construction dates have not been announced.

A new Hollywood sign, meanwhile, is taking shape on the opposite side of the Chi-

nese Theater, where developers plan a "large-format" theater with a 60-foot-high screen. In a radical split between building and elevation, the design proposes a plain box fronted by spectacular 40-foot-high freestanding letters that effectively serve as both elevation and sign for the project. The \$20 million, 47,000-square-foot project is expected to start construction in July, with completion expected next spring. *Morris Newman*

architecture: may 1997 | 55

73% of AIA members surveyed chose *Architecture* when asked which publication should be included in AIA dues according to a 1995 Readex study.

To reinstate your subscription call 1-800 745-8922 or fax your order to 212 536-5294.

Water Salt Oil Ice

No one protects masonry and concrete like ProSoCo!

New or old, inside or out, we have the right protective treatment for the job.

Trust a Leader — Trust ProSoCo.®

► SUREKLEAN ►
CONSOLIDECK



ProSoCo, Inc.
800-255-4255

**Weather Seal
STANDOFF®**

Circle 68 on information card

See us in Sweets 04500 Buyline 3042 and SweetsSource

The Case for Steel Windows & Doors.

With graceful, linear sight lines Hope's windows evoke classic themes. With understated strength they seem to confer real permanence upon a building. Renowned for their visual message, and respected for their timelessness, Hope's steel windows always contribute structural integrity and



enduring performance. They will not rack, regardless of size. They can survive any environment without degradation. They do not require thermal-breaks. They eliminate the serious dry shrinkage problem now associated with rapidly aging thermal-break aluminum windows. They can be designed in any ventilator configuration, in any shape, any dimension. Hope's steel windows define their purpose immediately and eloquently. Comprehensive literature, videos and technical information are available.

HOPE'S
SINCE 1818

84 Hopkins Avenue / P.O. Box 580 / Jamestown, New York 14702-0580
716 665-5124 / Fax: 716 665-3365

Circle 70 on information card

IN BRIEF

This month's AIA convention in New Orleans will be **Terrence M. McDermott's** last as executive vice president and CEO of the Institute. After almost four years at the AIA's helm, McDermott will move to Chicago in July to become executive vice president of the National Association of Realtors.

Another topic of discussion at the AIA convention will be the recent breakup of one of the Big Easy's most prominent firms.

Ronald Filson is leaving **Eskew Filson Architects** to start his own practice.

The odds are getting better that **Frank Gehry's** Disney Concert Hall may get built in Los Angeles, thanks to a \$15 million gift from the Ralphs/Food 4 Less Foundation and Ron Burkle, managing partner of the company that owns the Ralphs and Food 4 Less supermarkets. The gift brings the amount currently available for the project to \$117.8 million, nearly 70 percent of the funds required.

Edward Durrell Stone designed the concert hall in Washington, D.C.'s Kennedy Center (1971) during an era that had little concern for accessibility. But this October, the hall

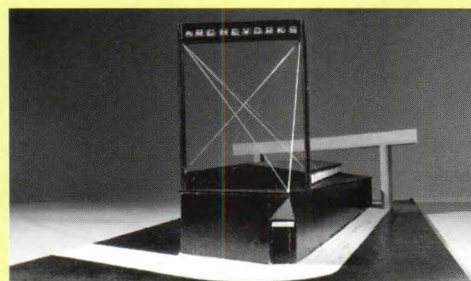
reopens after a 10-month, \$10 million renovation to bring it in line with ADA requirements.

Hartman-Cox Architects and **Quinn Evans/Architects** are clearing sight lines by reducing the number of seats from 2,759 to 2,448 and adding new boxes.

Rafael Viñoly Architects has been selected to design Philadelphia's Regional Performing Arts Center, replacing a 10-year-old scheme by local architect **Venturi, Scott Brown and Associates**.

Stanley Tigerman has designed a new building for Archeworks (below), the alternative school he founded in Chicago.

While Museum of Modern Art (MoMA) expansion contender **Tod Williams Billie**



Tsien Associates did not make the finals, it certainly got the best consolation prize. The husband-and-wife team has been selected to design the Museum of American Folk Art near MoMA on 53rd Street.

And **Will Bruder**, whose library is a few blocks from **Williams and Tsien's** Phoenix Art Museum, has received a major commission in Tempe: a \$100 million, 1 million-square-foot mixed-use complex at Arizona State University. He has also been selected to design the Scottsdale Art Museum.

Last month, the General Services Administration announced a shortlist of architects for the 228,488-square-foot addition to the Frank E. Moss Federal Courthouse in Salt Lake City. **Gwathmey Siegel, Hardy Holzman Pfeiffer, Barton Myers**, and **Thomas Phifer** will submit designs next month for the \$60-65 million project.

St. Louis Mayor-elect **Clarence Harmon** plans to put the \$127.5 million golf course and luxury housing proposed on the site of the infamous Pruitt-Igoe housing complex (*Architecture*, April 1997, page 63) on hold. "I'm concerned about the project's impact and its ability to succeed," Harmon explains.

architecture: may 1997 | 57

Everything Under the Sun...

The ultimate in design flexibility is possible with clear spans up to 100 feet. The most highly insulating, diffuse-light transmitting, structural, sandwich panel technology in the world... Kalwall®.

Don't be fooled by look-alikes!

Single-Source Responsibility

Structures Unlimited, Inc.

PO Box 4105, Manchester, NH 03108 (800) 225-3895

Richland County Library, Columbia SC Architects: Steven & Wilkinson of South Carolina, Inc.
Photography: Flion Rizzo Creative Sources Photography

Circle 72 on information card

**"GENIUS IS
ONE PERCENT
INSPIRATION
AND NINETY-NINE
PERCENT
PERSPIRATION"**

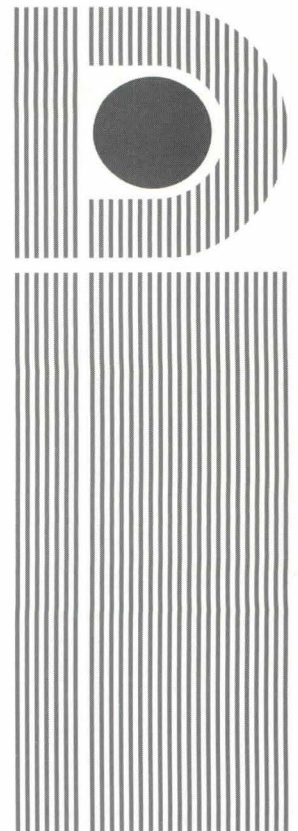
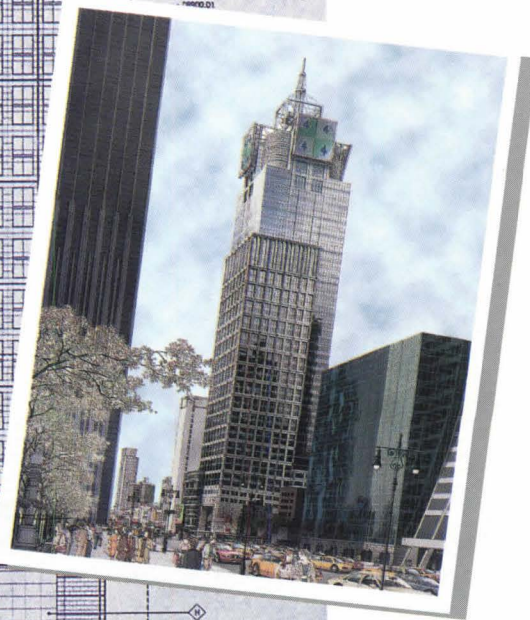
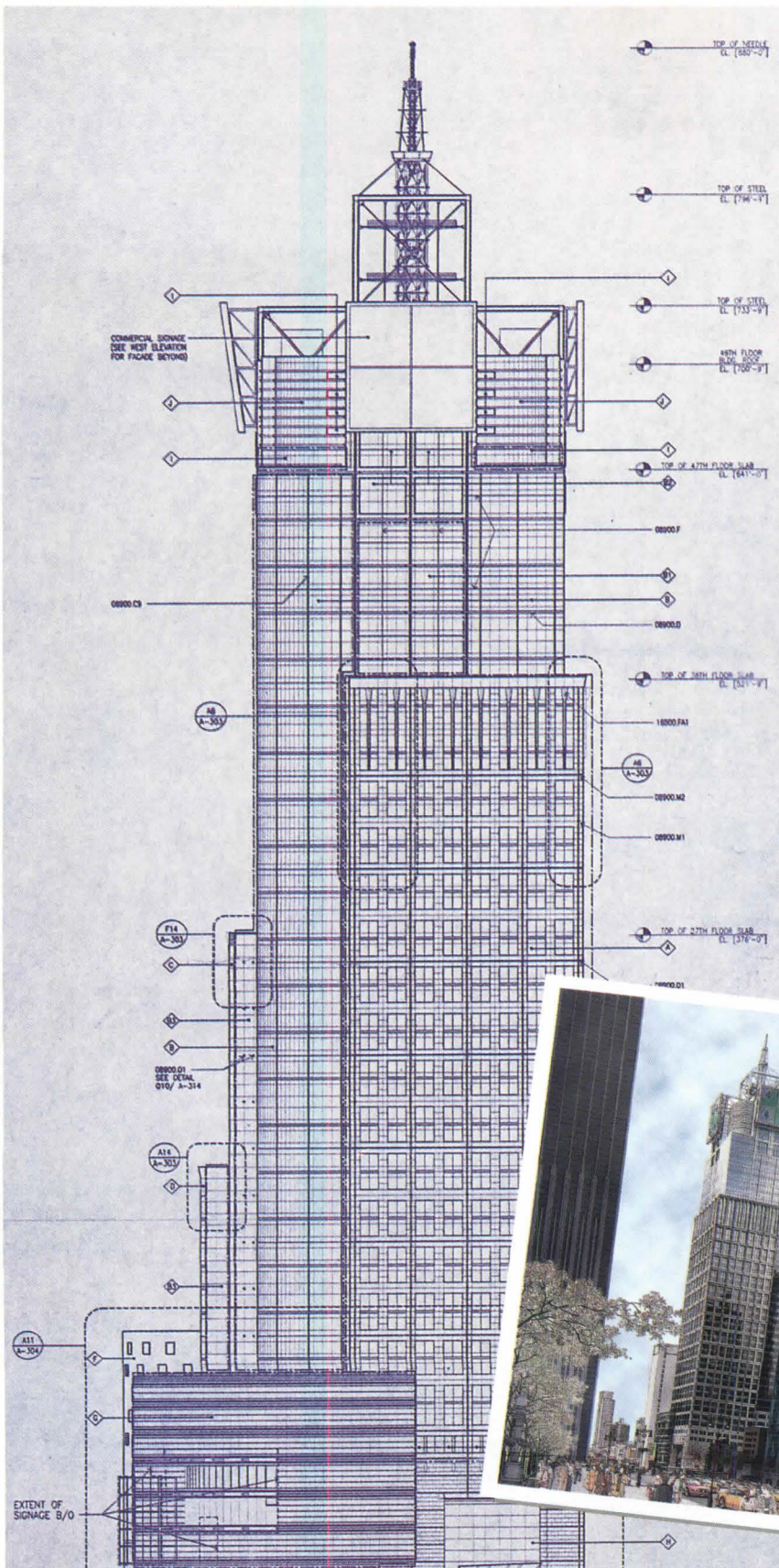
—Thomas Alva Edison

The Durst Organization is pleased to thank the many talented people at Fox & Fowle Architects for their landmark efforts as designers of *4 Times Square*.

Currently under construction at the "Crossroads of the World" at 42nd and Broadway, it breaks ground in more ways than one.

4 Times Square sets a new standard for environmental design, construction and operating practices. Designed for the comfort of its tenants and their technological needs as we enter the 21st Century, it will be a proud addition to the skyline of the "new" Times Square.

Innovation is hard work.



© 1997 THE DURST ORGANIZATION, INC 1155 AVENUE OF THE AMERICAS, NEW YORK, NY 10036

The Durst Organization
SINCE 1915 OWNER/BUILDER/MANAGER

Circle 74 on information card

One of the most memorable features of Ada Louise Huxtable's architectural criticism for *The New York Times* was her early advocacy of historic preservation and her great eye for architecture. These sensibilities rarely emerge in Huxtable's new book, *The Unreal America: Architecture and Illusion* (The New Press, 1997). Her critique of contemporary American culture and places reveals an elitism that shows how out of touch she really is these days.

Unrealistic Expectations

Ada Louise Huxtable bemoans the loss of serious architecture in a book devoted to ersatz environments.

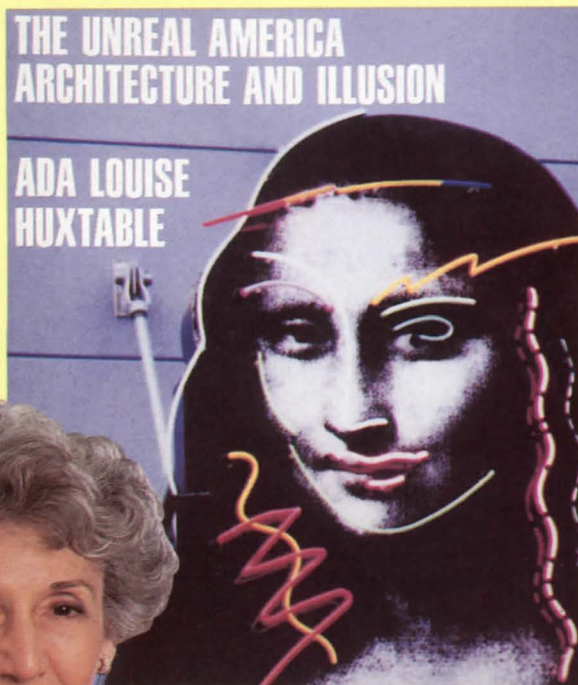
In the preface, Huxtable announces that what concerns her "as much as the state of American building is the American state of mind, in which illusion is preferred over reality to the point where the replica is accepted as genuine and the simulacrum replaces the source." Her book, then, serves as a sustained attack on the relationship between "real" and "fake" in America today, skewering everything from historic preservation to theme parks, strip malls, and even some contemporary architecture.

Apart from general grumbling about marketing, tackiness, and edited history, Huxtable has two chief complaints about illusory environments of the Disney sort. First, the design is poor. At Disneyland, she is "appalled [at the] low level of imagination and design." Second, the settings are stunningly fake and usurp the power of the originals, or rather, the willingness of people to go see the originals. Huxtable sees Americans as addicted to fakes and fantasies, to surrogate experiences and surrogate environments of amusement and consumption.

In contrast, Huxtable presents City Walk at Universal Studios as "witty and sophisticated." Here, facades represent amusing quotes, and the place is "hard-surfaced and very urban and full of real and imaginary style." Even the pasta primavera is "real," whereas at Disneyland, it is a "mass of sodden soup noodles." I am unsure how this renders the merchandising of illusion less troubling, but Huxtable seems to think it does.

Unreal America is a narrative of loss: the loss of elite culture; of "serious architecture," which is "sidelined, trivialized, reduced to a decorative art or a developer's gimmick"; of art unimpeded by market imperatives—the loss of the "real." Huxtable is convinced that Americans cannot tell the difference between the fake and the real; worse, they don't care.

Huxtable's quintessentially elitist perspective recognizes no possible alternative: Elitist culture is the best; everything else is but a pale reflection. In fact, Huxtable evinces a *good deal of contempt* not only for the environments inhabited by the "masses," but also for the masses themselves. Not only do they prefer the





IF YOU LIKE THIS FRONTAL ELEVATION, WAIT TILL YOU SEE WHAT'S BEHIND IT.

A truly great design makes no compromises. It's not only pleasing to the eye, it also has a solid structure behind it. The full-time All-Wheel Drive Subaru 2.5 GT is just such a design.

That's because when you buy a 2.5 GT, or any All-Wheel Drive Subaru, from available stock between May 1, 1997 and July 31, 1997, you get the solid foundation of the Added Security® Basic Maintenance Plan absolutely free. It's a plan that includes oil changes, tire rotations and roadside assistance on your new Subaru for three years or 45,000 miles, whichever comes first. Complete the form below and it's yours.

Look a little further beneath the surface of your new Subaru and you'll find another impressive strength – the Subaru All-Wheel Driving System. It continuously monitors changing road conditions and automatically transfers power from the wheels that slip to the wheels that grip. The same All-Wheel Drive technology that helped Subaru win the last two World Rally Championships, as well as The ABC's of Safety: Air bags. Buckle up. Children in back.

the first three events in this year's rally circuit.

Test-drive a new Subaru 2.5 GT today. For the location of your nearest Subaru dealer visit our website at <http://www.subaru.com> or call 1-800-WANT-AWD. We think the 2.5 GT is an automotive design without compromise. And with this special offer, it will save you on maintenance costs, too.

FREE THREE-YEAR/45,000-MILE BASIC MAINTENANCE PLAN

Buy a new All-Wheel Drive Subaru and we'll give you our Added Security® Basic Maintenance Plan at no charge. So call 1-800-WANT-AWD today for the name of the dealer nearest you.

This certificate is valid for a free Added Security Basic Maintenance Plan – a \$545 value – when you take retail delivery of a new Subaru from available dealer stock between May 1, 1997 and July 31, 1997. Simply mail this certificate along with a copy of your Agreement of Sale or lease agreement to: **Subaru Added Security Processing Center, Subaru Plaza, P.O. Box 6000, Cherry Hill, NJ 08034-6000.**

Name _____

Address _____

City _____ State _____ ZIP _____ Phone _____

Odometer Reading (Dealer Verification) _____ VIN# _____

If leased years/miles _____ Are you a first time Subaru buyer? Yes _____ No _____

Purchase Offer Details. 1. This purchase offer is for a 3-year/45,000-mile Added Security Basic Maintenance Plan and is measured from the limited warranty start date until time or mileage is reached, whichever comes first. 2. If you lease your new Subaru, the coverage time and miles will match the term of the lease, in any event, not to exceed three years or 45,000 miles. 3. Services performed prior to the plan effective date are not covered under the plan. 4. Upon verification of vehicle purchase, eligibility and odometer reading by dealer, we will process and mail your Added Security Basic Maintenance Plan package to you. 5. Refer to the Added Security Basic Maintenance Plan brochure at your Subaru dealership for further information about the coverage. 6. Suggested retail price of Added Security Basic Maintenance Plan is \$545. 7. You must present original coupon to qualify. No replacements will be made. Reproductions and facsimiles are not valid. Only one Basic Maintenance Plan will be awarded per coupon. 8. Prior Added Security Maintenance Plan purchases excluded. No refunds will be made. 9. Eligible vehicle must have less than 7,500 odometer miles at the time this offer coupon is submitted. 10. Vehicles purchased in Hawaii are ineligible. 11. Coupons must be redeemed within 60 days of vehicle purchase date.



fake, but they are an unpleasant mix as well, sharing some undefined but clearly negative "common denominator of taste and experience." She singles out the women for disparagement: "Women in improbable, spray-rigid hairdos and permanent-press, pastel pantsuits are straight out of Saul Steinberg's gallery of Amazons." One is left with the impression that if women wore only Armani or Chanel and had the right coiffure, their problems would evaporate.

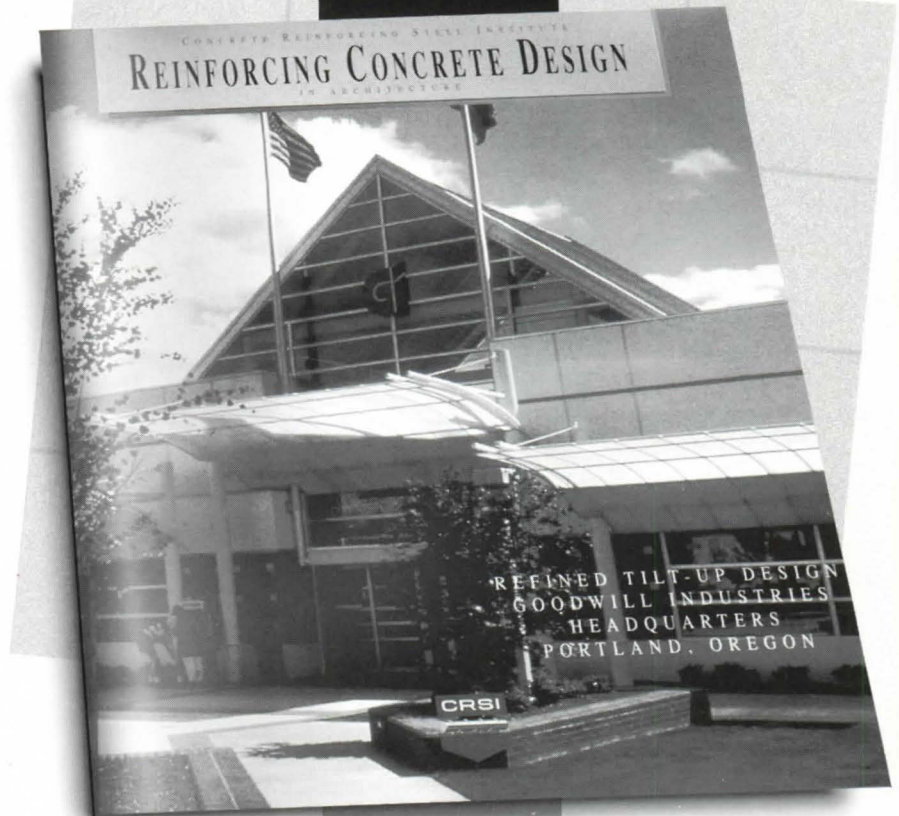
Like other elitists, Huxtable is unwilling to locate the true source of the problems she identifies as embedded within capitalism itself. Capitalism drives Disneyland, the malls, and the "authentic reproductions" she so loathes. She seems not to recognize that capitalism demands the mass consumption of *Hunchback of Notre Dame*-brand Esmeralda magnets and Quasimodo erasers in order to produce enough surplus for—well, paying architects to produce the witty facades of City Walk and publishers to publish books like *Unreal America*. Or, more pointedly, to support the elite group of plutocrats and friends with whom Huxtable travels the globe, deciding upon whom to confer the next Pritzker Prize. Everyone ought to see the original places themed in Disneyland and elsewhere, she maintains, and they also ought to be imbued with the taste of her class. But she stops short of advocating the radical redistribution of wealth that would be necessary to realize this idea.

To be sure, Huxtable is fully conscious of critiques of elitism. She notes with dismay that "the current politically and esthetically correct position" rejects "quality as an elitist concept and denies judgment as the 'the privileging of the eye.'" Huxtable cannot accept that the definition of quality is just class-based taste discrimination that has no greater merit or standing than that of any other class, group, or culture. Huxtable operates under her own equally powerful set of illusions: Her America is every bit as unreal as the one she so scathingly criticizes. *Diane Ghirardo*

Diane Ghirardo is a professor of architectural history at the University of Southern California and editor of the Journal of Architectural History.

NEW

REINFORCING CONCRETE DESIGN



Fourth Feature "REINFORCING CONCRETE DESIGN"

CONTINUING AN INSIGHTFUL SERIES FOCUSING ON
INNOVATIVE ARCHITECTURAL DESIGN.

TILT-UP . . . this fast growing construction method benefits the design and construction teams as well as the owner/developer. It's cost-effective to build and maintain, architecturally versatile and offers speed of construction for short schedules.

Find out how this 60,000 square foot multi-purpose building for Goodwill Industries was completed in ten months.

Call or fax for this architectural success story featured in the latest issue of "REINFORCING CONCRETE DESIGN" from CRSI. It's yours FREE for the asking!

Reinforced concrete . . . providing creative solutions.



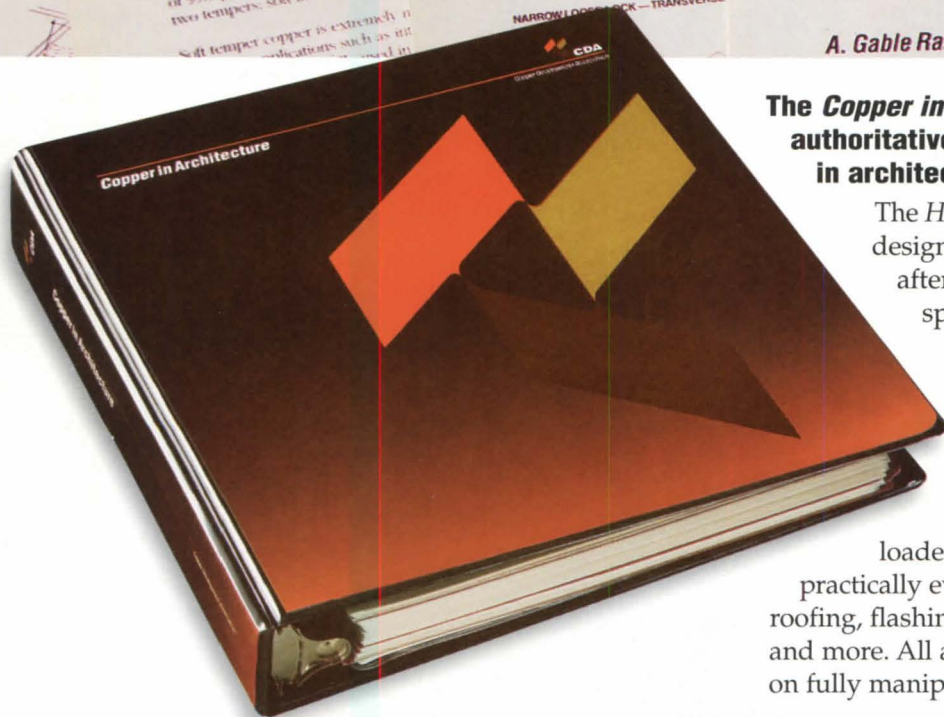
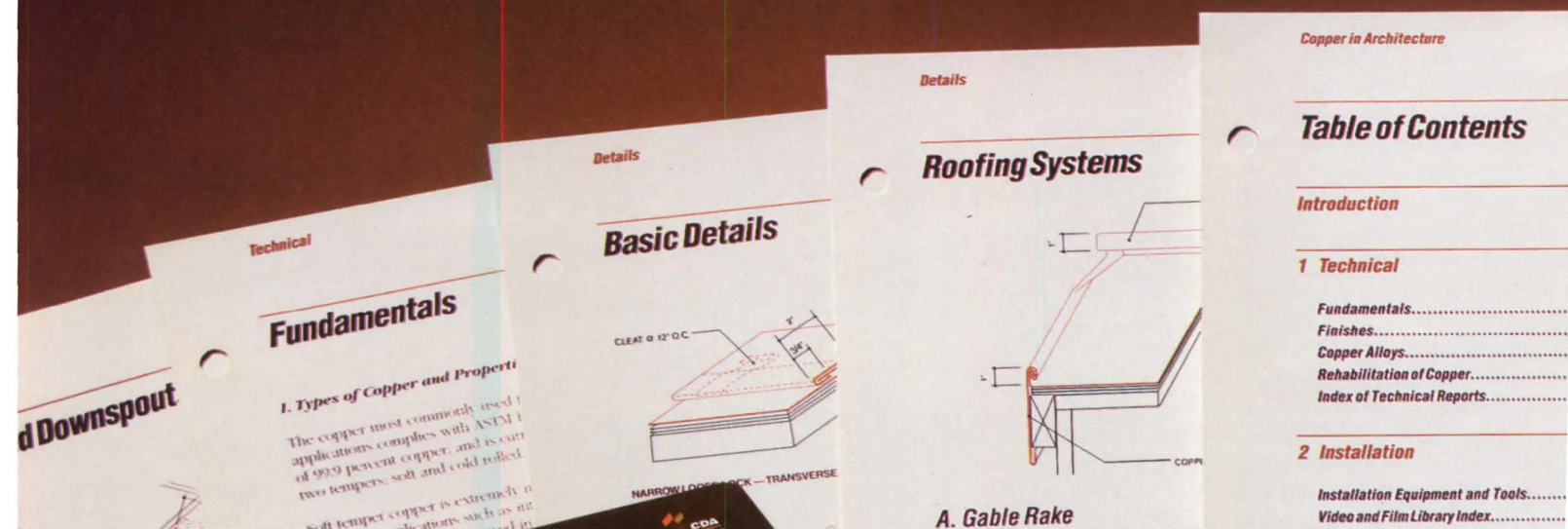
Concrete Reinforcing Steel Institute

933 N. Plum Grove Road
Schaumburg, Illinois 60173-4758
847/517-1200 Fax: 847/517-1206
Website: <http://www.crsi.org>

© 1997 CRSI

Circle 80 on information card

Get the whole including details



The *Copper in Architecture Handbook* is the most authoritative, comprehensive source on copper in architecture available anywhere today.

The *Handbook* contains historical and contemporary design and installation techniques. You'll find page after page of ideas, project samples, details, specifications, finishes, and sources for manufacturers and contractors. Plus, there's complete coverage of copper properties, technologies and applications.

Details...details...details.

The *Copper in Architecture Handbook* is loaded with useful detail drawings. They cover practically every use of sheet copper in architecture — roofing, flashings and copings, gutters and downspouts, and more. All are meticulously detailed in the *Handbook* and are available on fully manipulable, IBM-compatible, AutoCAD® disks.

AutoCAD is a registered trademark of Autodesk, Inc.

Circle 82 on information card



Federal courthouse will anchor new civic mall.

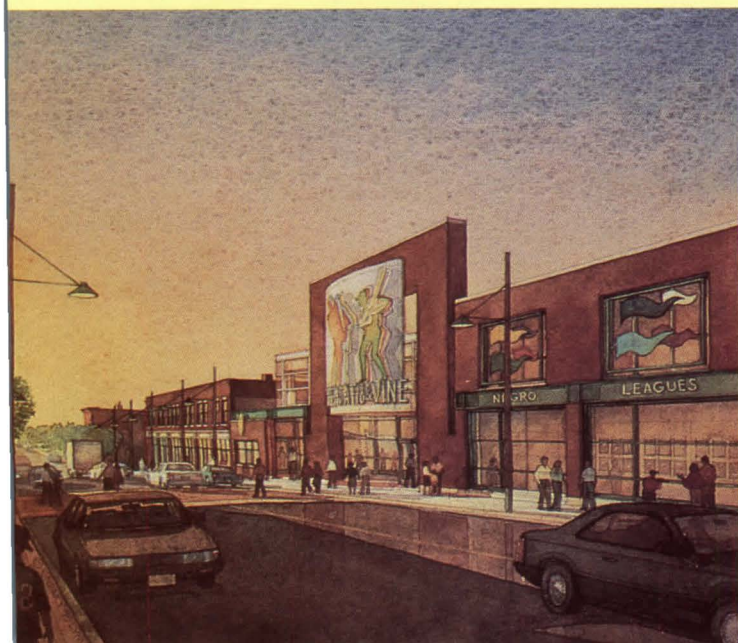
When Mayor Emmanuel Cleaver talks about Kansas City's 18th and Vine area, he speaks in the compelling voice of an ordained minister. "Did you know that Count Basie put together his band here?" the mayor asks with intensity. "This is the home of Charlie Parker too. Ella Fitzgerald sang here. So did Nat King Cole." Cleaver's enthusiasm rises as he relates the city's historic catalogue of African-American achievements. "Kansas City was also the home of baseball's National Negro Leagues—it started right on 18th Street. Jackie Robinson was discovered here!"

Sadly, the street where Mayor Cleaver hears history singing has faded into disrepair, with little evidence left of its inspirational heritage. Once a bustling hub of creativity, commerce, and cattle, Kansas City, Missouri, experienced the urban decay common to America's larger cities in the 1970s. A majority of its 1.6 million people now live in suburbs, spread thinly over seven counties, two states, and 100 communities.

Kansas City Revival

**Tax incentives, strong leadership,
and a healthy economy are resuscitating
downtown Kansas City, Missouri.**

World Jazz Museum and Negro Leagues Hall of Fame revive 18th and Vine area.



But with the visionary, second-term mayor's support and the city's financial backing, a new World Jazz Museum and National Negro Leagues Hall of Fame are under construction on 18th near Vine, designed by local architect Gould Evans Goodman. The \$25 million dollar project is set to open this July 4th as only one of several active fronts in the battle to save downtown Kansas City.

Since 1990, more than 2 million square feet of commercial and residential buildings have been constructed in and around downtown, close to half of which renovate Kansas City's extensive stock of turn-of-the-century warehouses and factories. Like the Jazz Museum, many of the projects owe their lives to financial incentives offered by the city.

Primary among these is Tax Increment Financing (TIF), a state-sponsored program established in 1982. TIF enables Kansas City to rebate projected tax revenues generated by new buildings as a tool for reducing developer risk. This incentive program took off after 1992, when the city was allowed to add the more substantial revenues from earnings, sales, utility, and food and beverage taxes to those based on property assessments.

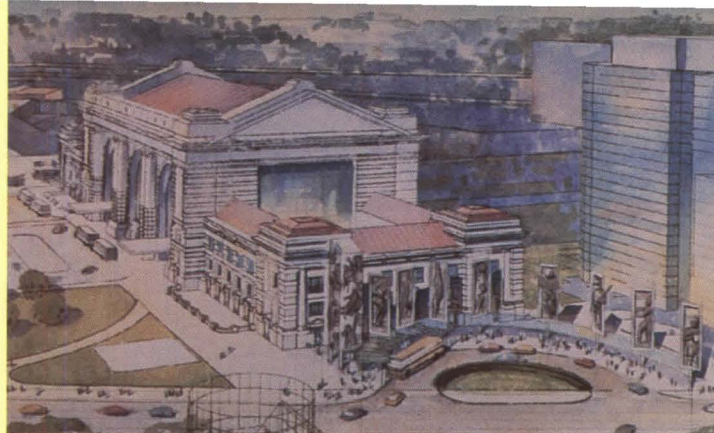
The variety of projects benefiting from Kansas City's financing program is remarkable, ranging from the renovation of the historic New York Life Building (pages 176-181, this issue) to construction of a civic mall, comprising a U.S. courthouse by Ellerbe Becket and local architect Abend Singleton; a building by Lohan and Associates of Chicago for the Federal Aviation Administration; and a two-block long, one-block wide public park designed by

Frewen Architects of Kansas City. Since its inception, TIF has provided more than \$900 million in financing citywide for projects totaling about \$3.5 billion. All but a handful of these began construction in the last five years, and nearly one-third of the money has ended up in the downtown core.

TIF is not without its critics, however. Architect Thompson Nelson, whose firm Berkbile Nelson Immenschuh McDowell Architects (BNIM) has designed more than \$100 million worth of TIF-sponsored buildings, has heard complaints that "the tax dollars from TIF projects are not flowing to the city or the schools [the traditional beneficiaries of increased tax revenues], but to the projects and their developers."

Others maintain that some funds have supported projects that don't need the incentive. Public ire was raised recently when the TIF Commission approved \$53 million to support renovation, expansion, and parking for the upscale Country Club Plaza, located south of downtown. Begun in 1922, the Plaza is a much-loved Kansas City landmark. The nation's oldest shopping center, the Plaza was originally designed by architect Edward Tanner in the architectural style of Seville. While President Barrett Brady of J.C. Nichols Company, the owner of the Plaza, argues that this urban hub needs public support "to remain competitive with suburban malls and their low-cost surface parking," others see that support as corporate welfare for Nichols, which originally developed and still owns the popular property.

Mayor Cleaver expects a backlash against TIF and other investment incentives from conservatives who decry the financial risk, and who fear the city oversteps its authority in becoming a de facto development partner. "The underbelly of this,"



Union Station's east end will be renovated into food court.

Cleaver explains, "is that whenever a city experiences growth using tax abatement, there eventually will be a backlash. We already have council members who fear we have gone too far."

Cleaver and others respond to the criticism with logic that is tough to refute: They argue that without tax incentives, redevelopment and its resulting revenues would never be realized. Further, program supporters acknowledge that although the city and school districts forego tax revenues on TIF-related projects for 23 years (the maturation period of TIF-backed bonds), the loss is the city's appropriate cost for bringing investment to areas that would otherwise never see it. A recent report suggests that less than 15 percent of the overall revenues disbursed by the program benefit private interests, with more than half of the expenditures committed to site and infrastructure improvements.

Cleaver is stoic about the challenge. "I predicted we would do a great deal of building and then go through a silent season," he recalls. "My hope was that even during the silent times, there would still be an afterglow."

Right now, that glow is more of a flame. Since 1992, downtown employers have created nearly 10,000 jobs, bringing the number of workers in the city to its highest count since the 1950s. More than 7,000 people also now call downtown home, in new townhouses and warehouse loft conversions. Increased employment has generated much of the recent construction. Altogether, downtown has benefited from an infusion of more than \$1 billion in less than a decade, and nearly that much again is on the drawing boards.

All the activity, however, has not been a panacea for the problems that crippled Kansas City's urban core. The suburbs still wield tremendous pull: Downtown supporters were stung by local telecommunications giant Sprint's recent decision to construct a 4 million-square-foot campus in suburban Johnson County—a loss of thousands of jobs and hundreds of millions of dollars in construction. Despite the influx of new residents and workers, too much of downtown sits idle after 5 p.m. Blight remains pervasive. Cleaver admits that "downtown will never be what it was in the 1950s and 1960s—it will not be the retail center of Kansas City." However, he adds, "It can be the entertainment and financial center of Kansas City," a combination Cleaver recognizes can reinvigorate street life—the key to a city's health.



The Unfinished Church of Sagrada Familia. Under construction since 1884.

Circle 88 on information card

Hmm...
kind of
reminds us of
our competitors'
Windows products.

In the works. Coming soon. Vaporware. That seems to be the state of most Windows software these days. But not Sema4. We're not only the A/E industry's premier financial management system, we're the only ones to feature Windows in more than our ads. Every Sema4 module is a true Windows application and the program is already in use by 600 firms nationwide. You get cutting-edge report design capabilities, a comprehensive resource manager, even a remote entry module for time sheets and expenses. If you're looking to run your business in Windows and not on hype, look to Sema4. With the other guys, you haven't got a prayer. Call us at 1 800-545-7484.

SEMAPHORE

<http://www.sema4.com>

We can keep even the biggest project from turning into one.

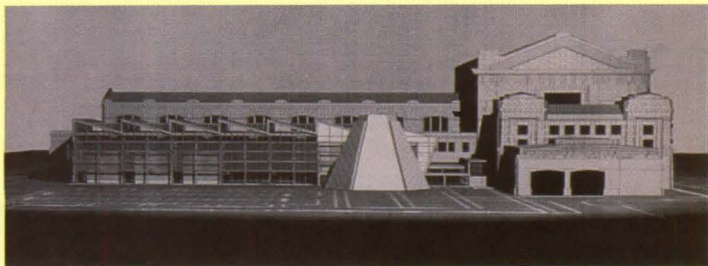
Microsoft
SOLUTION PROVIDER

For fast information via fax, call
1 800 779-0202 [Code: 026002]

An important component of that vision is the renovation of Union Station, once the nation's third-largest railroad terminal. Abandoned in the 1970s with the collapse of passenger rail travel, the 1914 Beaux-Arts landmark, designed by Jarvis Hunt, became a hulking, decaying reminder of the plummeting fate of the central business district.

Now, Union Station is being brought back to life in a symbolic role. The derelict temple of transportation will be reborn as a 1.1 million-square-foot science museum and retail and entertainment center. Fittingly, long-range planning for the 11-acre site also proposes a major intermodal transit facility. The present project is exceptional not only for its scope and location, but also because for the first time, citizens in both Kansas and Missouri agreed to fund the \$125 million project, raising money with a bistate cultural tax. Further, the architects involved include five local offices: HNTB, BNIM, CDFM2, Rafael Architects, and Mackey Mitchell Zahner; as well as two from out of state—Ehrenkrantz & Eckstut Architects of New York City and Keyes Condon Flornace Architects of Washington, D.C.

Additionally, Kansas City-based AMC Theaters wants to build a \$400 million mixed-use development on several downtown blocks around the city's classic Power and Light Building. The complex would include a 30-screen movie complex, 100 shops, 20 restaurants, a 300-room hotel, live theater/performance venues, an office tower, and a public plaza.



Science museum addition will abut west side of Union Station.

Although approved for up to \$185 million of TIF support, the Power and Light District is still on the boards. So are a number of other proposals. But the revival of Kansas City is now more a reality than a dream. In July, city planners and citizen groups will complete the city's first comprehensive strategic plan in nearly half a century, which endorses the continued revitalization of the urban core "as the geographic and symbolic center of the city." It calls for the standard prescriptions: increasing central city housing, strengthening infrastructure, improving connections with other areas of the city, and promoting development.

Fortunately, Kansas City's economy is healthy: Unemployment rates are below the national average, housing starts are up for several years in a row, and the cost of living ranks 23rd out of the largest 25 cities in the country. "The long-range outlook for Kansas City is for faster growth than the nation in terms of population and jobs," contends David Warm, executive director of the Mid-America Regional Council, the area's regional planning authority. These conditions, combined with leadership and innovative financing incentives, could finally prove the right combination to bring downtown Kansas City up to date. *Reed Kroloff*

Whitney LIBRARY OF DESIGN

Essential books for the architect's library

DEMOCRATIC ARCHITECTURE

Practical Solutions to Today's Housing Crisis

By DONALD MacDONALD, recipient of the 1996 Building Innovation in Homeownership Award. "Donald MacDonald thrives on dealing with tough urban problems. He has an innovative mind that pushes for answers... and an assertive passion for accomplishing solutions." —Beth Crawford Vincent, *Design LA*. 176 pages. 7 x 10-1/4". 100 illus. \$35.00, paperback. 0-8230-1343-X

FREEHAND DRAWING

For Architects and Designers

Watercolor, Colored Pencil, and Black and White Techniques

By ERWIN HERZBERGER. Offering clear, insightful instruction on drawing and sketching, this book is illustrated throughout with handsome examples of freehand drawings of well-known architectural works from around the world. The lessons it provides can be applied to architectural analysis, geometrical constructions, ordering systems, three-dimensional processes, and character definition. 112 pages. 9-3/8 x 8-1/2". 150 illus. \$19.95, paperback. 0-8230-1919-5

PRINCIPLES OF ARCHITECTURAL DRAFTING

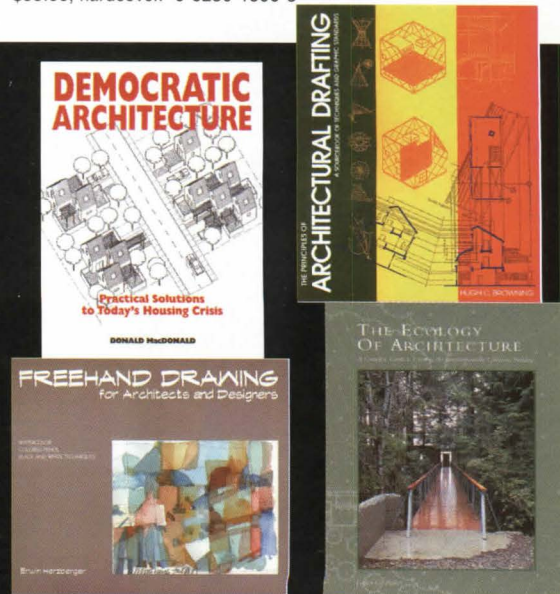
A Sourcebook of Techniques and Graphic Standards

By HUGH C. BROWNING. This much-needed volume is the most current and comprehensive reference on drafting standards and graphic techniques available. With instruction backed up by practical exercises, the book shows how a single drawing can be treated in different ways: understated, moody, exploratory, finished, technical, and even humorous. 256 pages. 8-1/2 x 11". Over 700 illus. \$35.00, paperback. 0-8230-4288-X

THE ECOLOGY OF ARCHITECTURE

A Complete Guide to Creating the Environmentally Conscious Building

By LAURA C. ZEIHNER. This highly praised volume answers the question: How do we design and build ecologically sound and affordable structures today that will perform well tomorrow? Written by an experienced practitioner in the field, the book details all facets of "green" building by providing comparative energy performance solutions, recycling alternatives, cost considerations, material analyses, information on legislation, as well as examples of practical applications. 272 pages. 8-1/4 x 11". Over 300 illus. \$55.00, hardcover. 0-8230-1596-3



To order, call toll-free 1-800-278-8477

Whitney LIBRARY OF DESIGN

An imprint of Watson-Guptill Publications
1515 Broadway, New York, NY 10036

It runs fast.

You save time.

It saves steps.

You try more ideas.

It simplifies data sharing.

You communicate your ideas.

It advances the state of the art.

You get the future.

It's been thoroughly tested.

You won't be.

It's AutoCAD

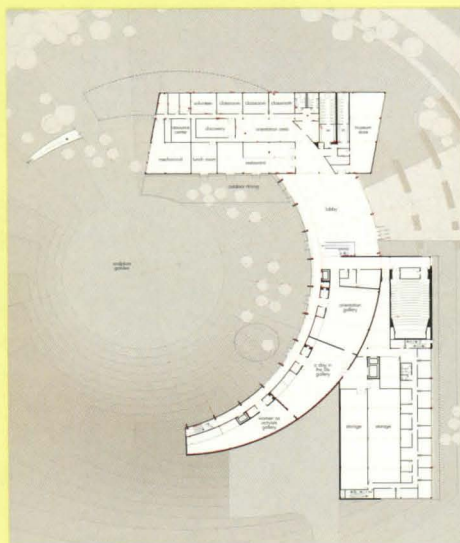
Women of the West Museum Boulder, Colorado Hammel Green & Abrahamson



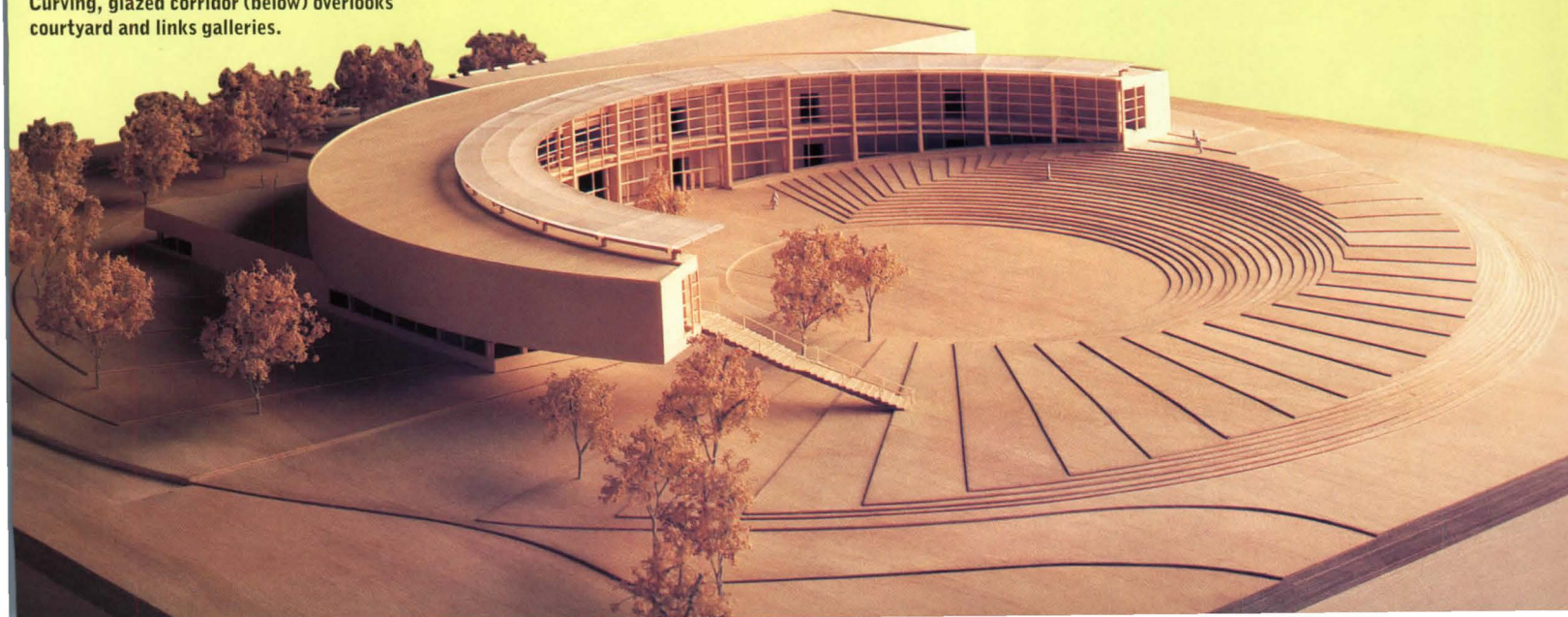
Minneapolis-based Hammel Green & Abrahamson (HGA) is revving up its design reputation with the help of rising design stars like Joan Soranno, the AIA's 1993 Young Architect of the Year. Fresh from the success of the

Minnesota Children's Museum (*Architecture*, November 1996, pages 86-93), for which Soranno served as project designer in the office of James/Snow Architects, the 35-year-old architect recently completed designs for HGA's 100,000-square-foot Women of the West Museum in Boulder, Colorado.

The new museum's galleries are dedicated to exhibits depicting the role of women in shaping the history of the American West. They occupy a two-story, crescent-shaped building facing the Rocky Mountains that encloses a circular courtyard with an amphitheater. This outdoor space—which Soranno considers the museum's "community heart"—will contain sculpture, a dining terrace, and a demonstration garden. A glazed entrance and two low, rectangular wings punctuate the sandstone-clad museum's convex, eastern face. The northern wing houses classrooms, a store, and restaurant; the southern wing contains an auditorium, museum offices, archives, and storage. The museum is scheduled to break ground next year. *Ned Cramer*



Curving, glazed corridor (below) overlooks courtyard and links galleries.





MICHEL LEGENDRE © CANADIAN CENTRE FOR ARCHITECTURE, MONTREAL



Architect, preservationist, and patron, 70-year-old Phyllis Lambert is the director of the Canadian Centre for Architecture (CCA) in Montreal, the museum and study center she founded in 1979. The CCA, housed since 1989 in a building designed by Montreal architect Peter Rose, is devoted to fostering an understanding of architectural ideas through public exhibitions, scholarly publications, and conferences. This September, the CCA expands the operation of its study center to include the Visiting Scholars Program, which will host 10 international scholars to encourage advanced research in architectural theory and thought.

Advocate of Architectural Ideas

Phyllis Lambert relates her latest plans for the world's foremost museum of architecture.

ARCHITECTURE: Presenting architecture in a museum setting is obviously a great challenge. How do you do it?

PHYLLIS LAMBERT: You can do it because you're presenting ideas. You're presenting how architects think about architecture. You're thinking about how the clients interact with the architects. In an architecture museum, of course, you can't present three-dimensional buildings. But you can present spatial phenomena, as we did with the Eisenman exhibition ["Cities of Artificial Excavation: The Work of Peter Eisenman, 1994]. The upcoming exhibit on the American lawn ["The American Lawn: Surface of Everyday Life," June 16 to September 27, 1998] is also going to be fascinating, with an installation by Diller and Scofidio. There will be photographs and technical discussions about the lawn, but presented in an absolutely beautiful and compelling way.

How do you see the CCA evolving?

When you start an institution, it takes time to develop the groups of people you work with, the confidence, the interaction. I think it's tremendous now—the broad level of scholars we work with; the institutions we work with in Canada, the United States, and Europe. For our series of exhibitions called "The American Century," the United States has been our focus for the last couple of years, and our connections have grown. We have a connection with Harvard for some study projects, and we're talking to Princeton. Our interest is strong in the theory and history of architecture, and they have strong programs in both those places. And of course this September, we will receive our first scholars at the study center.

How many scholars will there be?

Ten. They are coming throughout the year, for either three or four months, or six or eight months, but throughout the year.



Where do they come from?

Architecture is an international issue. So we have scholars coming from Germany, Brazil, the United States, England, Canada, and Hungary. We had about 68 applications—one from China, quite a few from South America and France. There are three subjects that we are concentrating on. One is the architectural debate after 1945. A second is the Baroque, beyond Rome. A third relates to Central and Eastern Europe. One of the strong wishes of the program is that scholars must be engaged in the cultural debate today. We are very interested in the interaction between scholars in Europe and in North America.

How are they chosen?

We had a committee of people who chose the scholars, people who know scholars in lots of countries.

Can practicing architects apply?

Yes, certainly. That's why the three-month term is very important. And also the summer term, for academics, so they don't have to take a leave of absence or a sabbatical.

What will the scholars do?

They'll use all of our collections. We discourage people who are coming who just want to finish a book. We want interaction; we don't want people just going off by themselves. They all must publish something, whether a book, an article, or a talk.

Most of your shows focus on history, rather than on contemporary architecture.

We try to do something every year on the historical aspects of architecture, something on the Canadian aspect, something on photography, and something on contemporary architecture. We've added significantly to the 20th century in two ways. We now have a series on how photographers and architects work together. We also have a series devoted to young architects who are experimenting with different points of view. The issues of contemporary architecture are important—we're going to be doing exhibitions on Carlo Scarpa, and next year, a big one on John Hejduk, and one on Zaha Hadid. I think she's a major figure.

Neither CCA nor other institutions seem to be dealing with big thematic shows on architecture today.

That's a very interesting issue. It's very hard to grasp. Terry Riley did the "Light Construction" exhibition at the Museum of Modern Art, and we're planning one on contemporary architects who experiment with form.

What do you think of contemporary architecture today?

One of the most fascinating things is what's happening in schools. Schools of architecture used to be headed by practitioners, but now they're headed by people interested in theoretical issues. Tony Vidler is at Cornell, Donna Robertson is at Illinois Institute of Technology, Sylvia Lavin at the University of California, Los Angeles, Larry Richards at the University of Toronto. These are people who are interested in the theory of architecture, architecture as a cultural issue. I don't think we've had that at any other period. It's terribly interesting.



Custom
Double
Hung Window
Designed by
Kurt Dubbe A.I.A.
Custom Manufactured
by... **BERGERSON**

It isn't that we mill our Export Grade Clear Western Red Cedar to a four thousandth of an inch tolerance that defines our uniqueness. It's that every window and door is custom manufactured to your specifications.

When ordinary run of the mill just won't do, and cost is a consideration but not an issue . . .

CEDAR WINDOWS & DOORS
By **BERGERSON**

P.O. Box 184 Hammond, OR 97103
Tel. 503/861-3534 • Fax 503/861-1122

Call 1-800-240-4365

For FREE CATALOG and more information . . . We're ready when you are.

Circle 104 on information card

Do you feel that theoretical approach is pervasive in the current practice of architecture?

Yes. When the "Five Architects" exhibition was held, and when Peter Eisenman started the Institute of Architecture and Urban Studies, architecture was more or less considered a kind of tailor's art: You rolled up your sleeves, and you went to work. It was not considered a cultural issue or intellectual issue. I think this has changed enormously.

Are there particular practitioners who reflect that?

Certainly Rem Koolhaas, Peter Eisenman, Frank Gehry, and Zaha Hadid. Then there is a younger generation, architects like Tod Williams and Billie Tsien. And then, of course, you get people like Rafael Moneo, who is a deeply intelligent person and has always been interested in very theoretical issues. Arata Isozaki in Japan is another.

How do you feel about having chosen Montreal as the location of CCA?

The CCA has always aimed at being an international place, and our collections and exhibitions reflect that more and more. We are about to announce our partnership with an institution in New York City, which I can't publicize until we have worked out the details.

Do you find other institutions are focusing on architecture more because of the CCA?

The architecture museums developing all around the world have some resonance with ours. I think that's undeniable, because we are still the most active institution. The strongest place outside of ours is in Rotterdam, the Norderlander Institute of Architecture. They have a new building, archives, a library, and elaborate exhibitions. Of course, it's basically focused on Dutch architecture.

What is the strongest American museum for architecture?

I don't know.

The Museum of Modern Art in New York?

Yes, but there's not a consistent program. Something is supposedly happening at San Francisco MoMA, but I don't know what. In Chicago, at the Museum of Contemporary Art, I'm doing a show on Mies. That's happening in the fall of the year 2000, and MoMA will have an exhibition on Mies at the same time. They're doing Mies in Europe, and we're doing Mies in America.

What's been your greatest accomplishment?

There isn't one that sticks out. I think everything has come up together. The quality of the exhibitions, the understanding of how we can do exhibitions. It changes, it evolves, it's never going to stick in the same place.

You know, for all of our exhibitions, the curator is an invited scholar or architect. There are always new ideas brought in, it's very volatile, very interactive. People work with our curators, everybody gains from it. I think one of the things I love about the CCA is the energy among people, the interaction among people, the constant ferment of discussion. Of course, that can happen in Montreal so well because there's enough calm around it. In New York, everything is in constant turmoil, which is wonderful, but sometimes you have to just back off and breathe.

AIA

Windows/Doors
Enhance your point of view with the latest energy-efficient units in a variety of materials and styles.

Specialized Lighting
Let your projects come to light with fixtures of every shape and size imaginable.

Finishes
Apply your creativity from floor to ceiling and wall to wall with the newest selection of treatments.

Roofing
Top off your building with endless choices of high-performance moisture protection products.

Fixtures
Bowl over your clients with elegant plumbing fixtures that won't sink their budget.

Click & Spec.

Current product information is always at your fingertips.

AIAOnline gives you an instant connection to current manufacturer product data and specifications. You will find up-to-date specs every day, any time of day, no matter where you are. All you need is Internet access and our address - <http://www.aiaonline.com>. So for your next project, click and spec with AIAOnline. It's never been this quick and easy.



The 'Net Solution For a Changing Profession

Circle 106 on information card

*You can feel it. Strength.
Confidence. Dependability. These
qualities are obvious every time
you walk through a Kawneer entrance.*

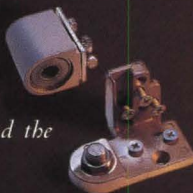
THE KAWNEER ENTRANCE. IT'S LIKE A FIRM HANDSHAKE.

*Kawneer entrances are built reliable.
So they last. With a combination of
four SIGMA deep penetration welds*



at each corner, a

*Kawneer door is virtually
indestructible. But the door
isn't the only element of the entrance
system to take heavy abuse. That's why
Kawneer engineers the entrance
and frame hardware to
withstand constant use and the
rigors of the environment.*



*The Kawneer entrance. A great
first impression. And a lasting one.*



The Mark of Responsibility

Chicago's hog butchers are a distant memory, but pork bellies are still among the commodities traded at the Chicago Board of Trade, headquartered in a magnificent Art Deco tower. The limestone-clad 1930 Holabird & Root landmark stands guard at the south end of LaSalle Street, forming the center of Chicago's financial district. Helmut Jahn designed and built a glass-sheathed Postmodern addition in the 1980s, but a startling increase in trading since then necessitated further expansion only a decade later. Designed by Chicago-based Fujikawa Johnson and Associates, the new addition eschews both the elegance of the original and the exuberance of Jahn's scheme for a banal concrete and glass bunker.

The new building is unrelentingly bland, sheathed in limestone-colored precast concrete with large expanses of spandrel glass. A 5-foot-high granite base at the sidewalk is the only attempt at a pedestrian amenity, but it incorporates a multitude of blank doors across the streetscape. Above the base, the lower two floors are articulated with perforated precast panels masking mechanical vents that are reprised at the top of the structure. Limp pilasters run the full height of the structure, decorated by gratuitous, fin-shaped appendages at top and bottom.

White-Collar

Crime

The latest addition to Chicago's Board of Trade replaces urbanity with expediency.

The new Board of Trade building is landlocked—the north face abuts an alley, the west face bridges the street to engage the old structure, and the south facade faces an elevated rail line. Only the east side is exposed to full public view where solid corners bracket six bays of spandrel glass. Curiously, this heavily glazed building has no actual windows; the glass offers no views from the inside.

A bridge spans the street between the new building and the Jahn building, creating a dark, claustrophobic space dotted with obsequious "vintage" lampposts that cower under the hulking breadth of the bridge, a lame attempt to imbue this complex with some sense of scale. The entrance, adjacent to a loading dock, is festooned with a row of bollards that offer a modicum of pedestrian safety. While both the Holabird & Root and Jahn buildings incorporate commercial ventures, the public is brusquely greeted at the door to the new building by security personnel who efficiently deny access to all but the commodity traders.

Why did architect Fujikawa Johnson choose an expression typical of telephone switching stations and other utilitarian structures? This site is at the heart of Chicago's Loop, but the stark expression of the new Board of Trade grievously degrades both the public realm and the civic integrity of an important institution.

The new facility has been widely heralded for its completion on schedule and under budget. Expediency may be an important factor in commodity markets, but it's hardly a prescription for civically responsible architecture. Institutions like the Chicago Board of Trade should know better. *Edward Keegan*





**TOMORROW'S
BUILDING DESIGN &
DRAFTING SOFTWARE...
IS HERE TODAY.**

Absolute control. Absolute freedom. Absolutely ALLPLAN *FT*.

Imagine the freedom...

The freedom to create in a natural, intuitive way. Effortlessly flowing from preliminary sketches to 3D models, animation, elevations... while having total control of your environment, from concept to execution.

ALLPLAN inspires you to create your best, fast and accurately. It affords you absolutely the most sophisticated control over every step of the building design process, in an all-integrated package. Imagine never again struggling to make different applications "work together."

Object-oriented, intelligent, ALLPLAN performs like an extension of your mind. Precise and efficient in a project's every single line, and most apparent, you will soon discover, in the bottom line.

Success does not happen by chance, but by design.

The type of design created with the absolute freedom gained by having absolute control of all phases, as you will with ALLPLAN.

ALLPLAN *FT*. For a free demo CD, contact Nemetschek today.

800.479.0735

www.nemetschek.com

- FREEHAND SKETCHING
- INTELLIGENT DRAFTING
- POWERFUL ROOF DESIGN
- FLEXIBLE STAIR UTILITY
- PHOTO-REALISTIC RENDERING
- REFERENCE SCANNED DRAWINGS
- SOLID MODELING
- 3D DESIGN
- NETWORK SUPPORT
- DXF*/DWG COMPATIBLE
- AUTOMATIC DIMENSIONING
- REAL-TIME WALK-THROUGH

ALLPLAN

FT

THE INTELLIGENT CHOICE

Visit us at AIA Expo 97 Booth 1748

ALLPLAN *FT* and Nemetschek are registered trademarks of Nemetschek Programmsystem GmbH. All other marks belong to their respective holders.

Circle 122 on information card



CHOICE CUTS

A survey of fresh design in the Midwest and Plains reveals top-grade talent in this industrious region.

NORTHERN EXPOSURE

Architect David Salmela crafts a neo-Scandinavian retreat in Minnesota's northern forests for a photographer and his wife.

ZOO STORY

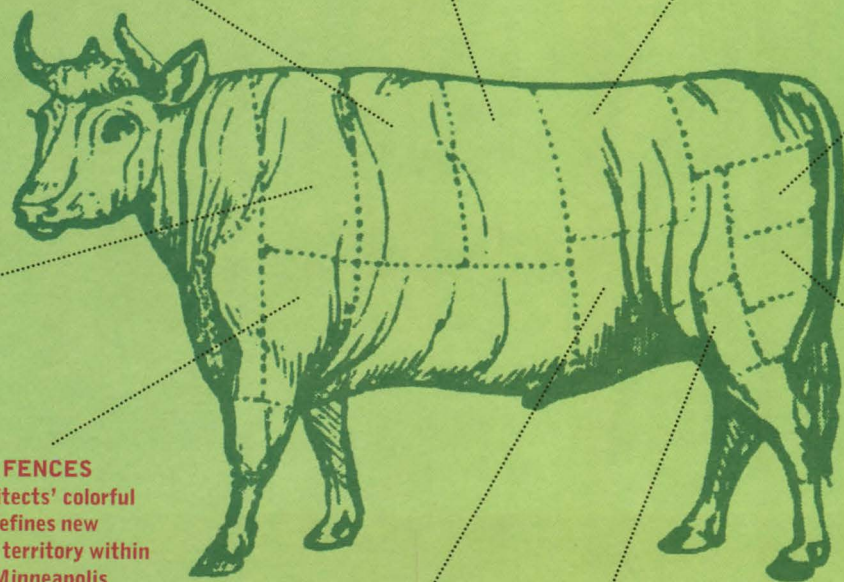
BNIM Architects' new entrance pavilion at the Kansas City Zoo extends environmental sensitivity beyond the park's naturalized habitats.

INNER SPACE

HLKB Architecture takes light construction to the prairie in an ethereal office of metal and translucent fiberglass.

BARN AGAIN

Kansas history pervades the limestone sheds of Abend Singleton Architects' state archives and research center.



INDUSTRIAL BALLET

Dance takes center stage in downtown Louisville with Bravura's new headquarters for the city's ballet.

MENDING FENCES

Loom Architects' colorful chain link defines new community territory within a troubled Minneapolis neighborhood.

PLAINS ABANDONMENT

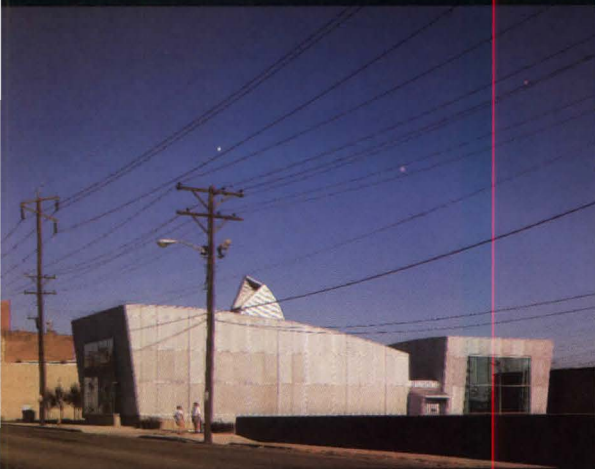
Maxwell MacKenzie records the fading vestiges of America's pioneers on the Northern Great Plains.

LEAN PIECE

Meatpacking comes clean—very clean—in architect Randy Brown's striking offices for an Omaha packer.

AIA'S HONOR SYSTEM

Has the AIA's honor awards program lost sight of design excellence?



Bravura's ballet rehearsal hall is located in Louisville's downtown warehouse district.



Why are so many commuters getting to work late in Louisville, Kentucky, these days? They're being treated to a free performance as they pass Bravura Corporation's new headquarters for the Louisville Ballet. Through the rehearsal hall's 20-foot-high window, the company can regularly be seen rehearsing their next production. "I'm surprised we haven't caused any accidents yet," remarks ballet Executive Director Debra Hoffer with a laugh. "People call to complain when we close our curtains."

Industrial Ballet



Materials mark program changes: roofing tiles wrap offices; corrugated metal light monitor tops reception; concrete-paneled volume with 20-foot-high rehearsal hall window opens to Main Street.

Bravura's streetside building also stops traffic with its exuberant form and inventive application of materials. Thirty-one-year-old Bravura designer M. Ross Primmer sees the rehearsal hall (performances are held at the Louisville Center for the Arts, located seven blocks to the west) as an homage to its prewar warehouse surroundings. "Warehouses always seemed to me like containers nearly bursting with space," explains the 1993 Harvard Graduate School of Design alumnus. "I saw the bulging volumes of the design as an abstraction of that." Primmer's sweeping, lyrical additions reflect balletic movement as well.

The rehearsal hall grew from a squat, windowless, 90-by-100-foot concrete-block warehouse the ballet purchased when it decided to move downtown. The company initially contemplated a modest remodel and expansion of the brutish little building, christened "the bunker." Bravura, a 12-person firm founded and managed by James J. Walters, persuaded the client that its \$1.3 million budget could buy a much more elegant solution.

Bravura added 10,000 square feet to existing 9,000-square-foot warehouse.



Bravura brings the Louisville Ballet to its toes with a traffic-stopping rehearsal hall and headquarters at the edge of the city's downtown warehouse district.

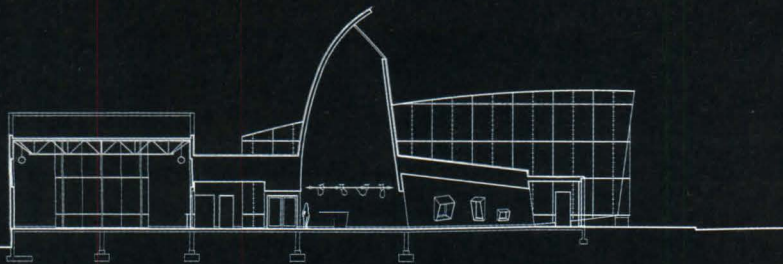
Irregular windows offer glimpses from entrance into rehearsal hall.



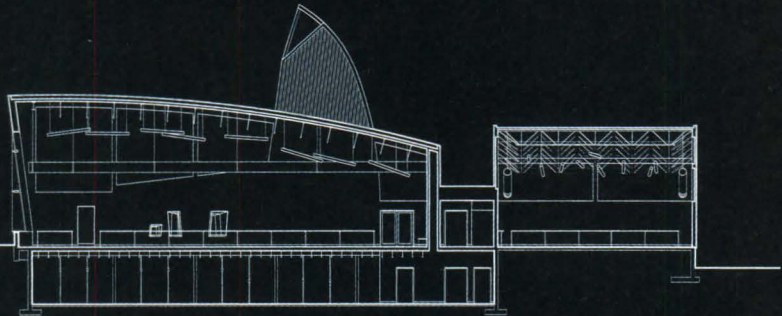
View from street into main rehearsal hall reveals fluorescent lighting hung to recall swimming fish between mechanical ducts.

Bravura converted the bunker into inexpensively finished office and support spaces (comprising lockers, costume shop, lounges, and storage), and reclad its exterior in fish-scale-patterned, cement roofing shingles. Attached to the east of this existing structure, a billowing 9,000-square-foot volume houses rehearsal halls, lobby, storage, and circulation. The new wing is differentiated by its soaring shapes and a 1/4-inch-thick cement-board skin.

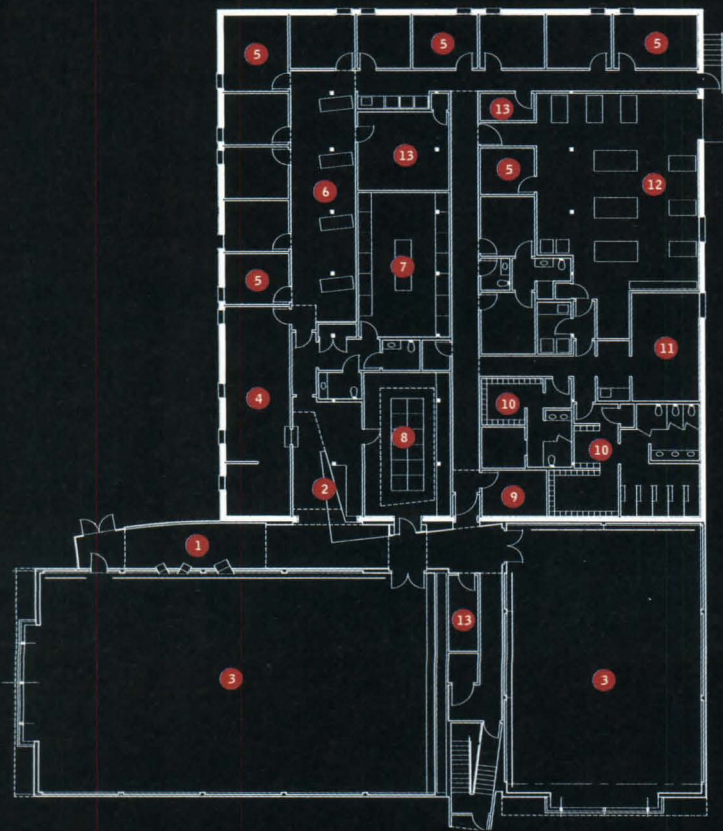
The new and old sections of the building join at a horn-shaped, corrugated metal volume housing the entrance and reception area. At the center of the composition, a similarly shaped light monitor thrusts 58 feet up to illuminate the reception desk, forming a vertical marker at the edge of Louisville's high-rise district. *Reed Kroloff*



North-south section facing east



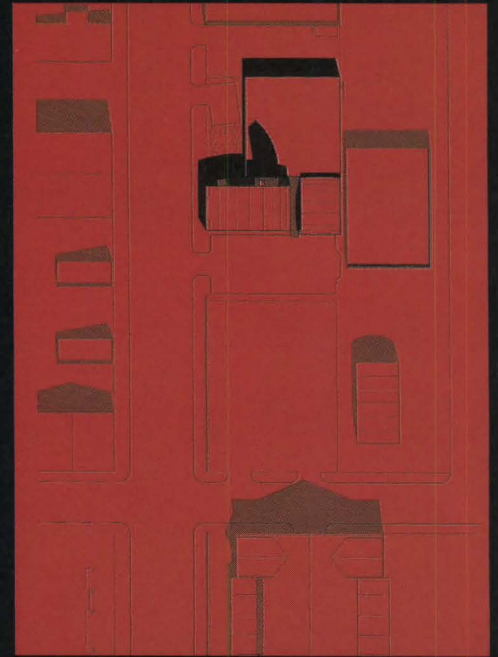
North-south section facing west



Floor plan

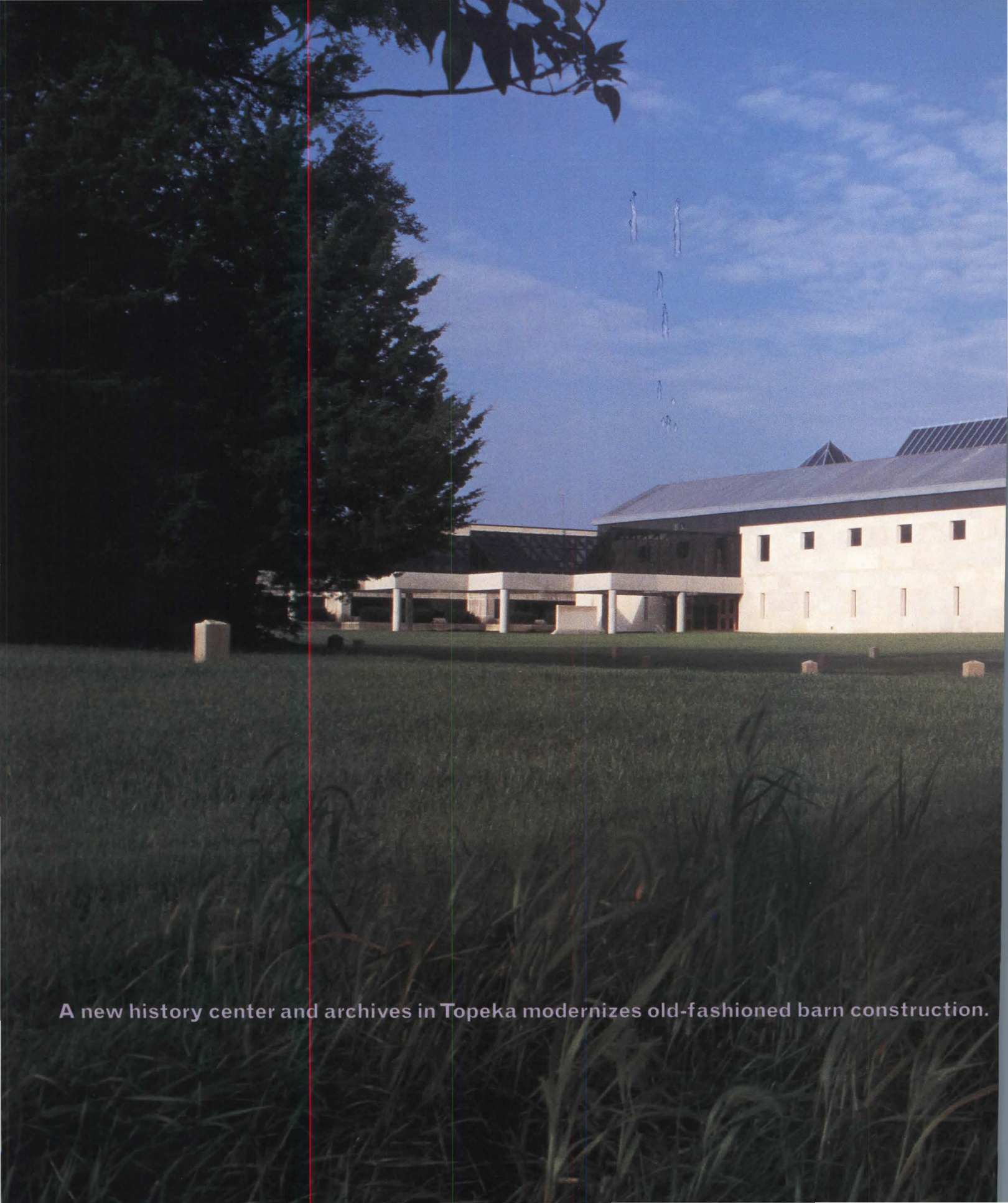
12' / 3.5m

- 1 lobby
- 2 reception
- 3 rehearsal hall
- 4 box office
- 5 office
- 6 intern area
- 7 direct sales
- 8 conference
- 9 physical therapy
- 10 locker/dressing
- 11 dancers' lounge
- 12 costume shop
- 13 storage

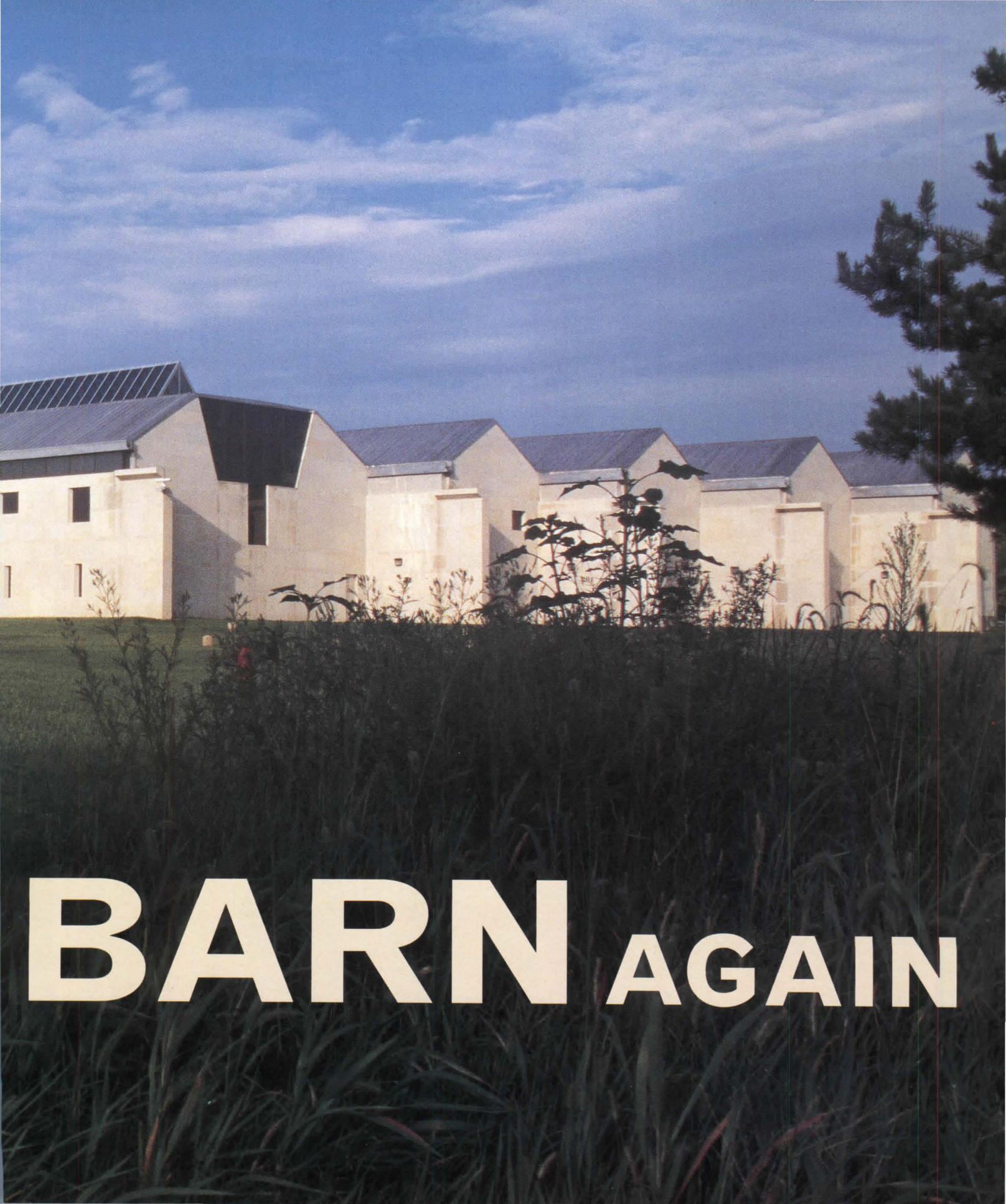


Site plan

LOUISVILLE BALLET CENTER, LOUISVILLE, KENTUCKY
CLIENT: Louisville Ballet **ARCHITECT:** Bravura, Louisville—James J. Walters (design principal-in-charge), M. Ross Primmer (chief designer and project manager), Joseph J. Daley (project architect), W. Daniel Church, Roberto C. de Leon, David S. Russell, Lisa Testa, André Van Vooren (project team)
ENGINEERS: Rangaswamy & Associates (structural), James E. Forst and Associates (mechanical, electrical) **CONSULTANTS:** Merrick/Kemper (cladding), Leonard Smith and Associates (cost estimating)
GENERAL CONTRACTOR: Wehr Constructors **COST:** \$1.44 million **PHOTOGRAPHER:** Jeff Goldberg/Esto



A new history center and archives in Topeka modernizes old-fashioned barn construction.



BARN AGAIN

Abend Singleton's state history center pays homage to the agrarian heritage of Kansas through staggered, limestone-clad sheds that recall traditional barns.



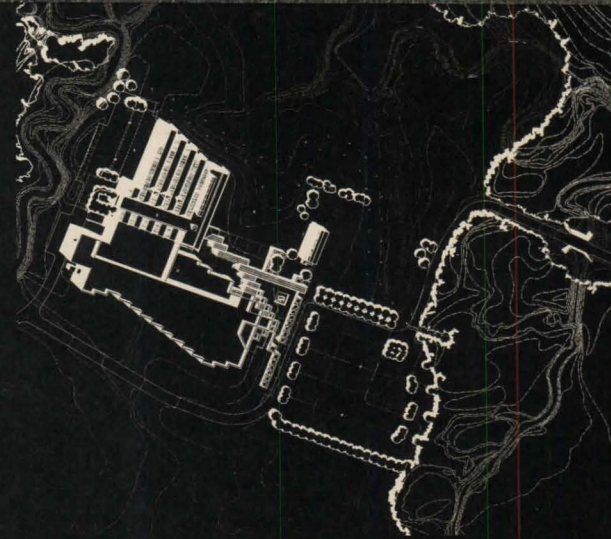


History center exhibits large-scale artifacts, such as farm irrigation machine, outdoors.

The Kansas State Historical Society in Topeka is a prairie attic, filled with an odd assortment of heirlooms: old Indian quilts, a pair of General Custer's boots, and the hammers and hatchets wielded by Carry Nation as she smashed saloons in her quest for temperance. The society also archives historic documents, such as pioneer diaries and settlers' maps.

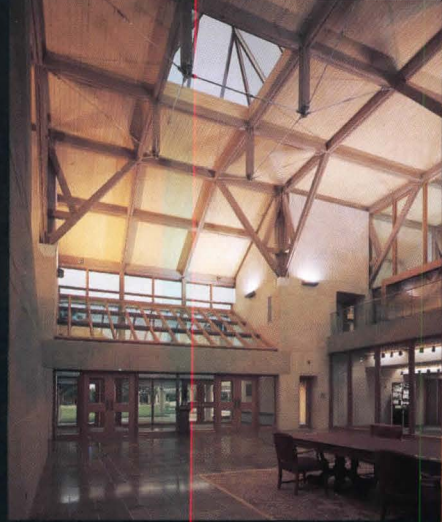
For almost 80 years, this repository of Kansan lore was housed in a grand but unremarkable Neoclassical building across the street from the state capitol, in dreary downtown Topeka. Then, in 1988, the state targeted the building for other government offices and forced the agency to find a new home. The society relocated to a rural site on the western outskirts of the capital city, next to an original 1848 Baptist mission and the Kansas History Museum, built in 1984. Framed by open prairie and rolling woodlands traversed by a 19th-century pioneer wagon trail, this rustic site attests to Kansas's agrarian roots. Kansas City architect Abend Singleton Associates invokes the area's rural heritage by adding a new 85,000-square-foot building that recalls traditional prairie barns. The addition houses the historical society's headquarters, the state archives, a research center, and a library.

This new historic research center extends from the existing history museum to create an L-shaped composition that defers to a tiny fieldstone mission to the east. "The new building transforms the competitive condition that existed between the mission and museum," explains Principal Stephen Abend.



Sheds containing new offices, archives, and library (site plan, top left) are attached to north side of existing history museum (site plan, bottom left). New L-shaped composition frames small Baptist mission (site plan, center and below).





Double-height lobby (above) leads to library (right). White oak paneling and customized industrial light fixtures adorn central reading room of library.



Skylights, clerestories, and soaring wood trusses inspired by prairie pole barns shift patterns of daylight to animate the building's airy interiors.

Abend's addition interconnects a staggered arrangement of limestone sheds capped with standing seam metal roofs that mediates between the scale of the tiny mission and the hulking limestone museum next door. The sheds break down the apparent mass of what is essentially a huge warehouse for artifacts, and dignify the functions contained inside with minimal detailing of simple, elegant materials such as aluminum, limestone, and oak.

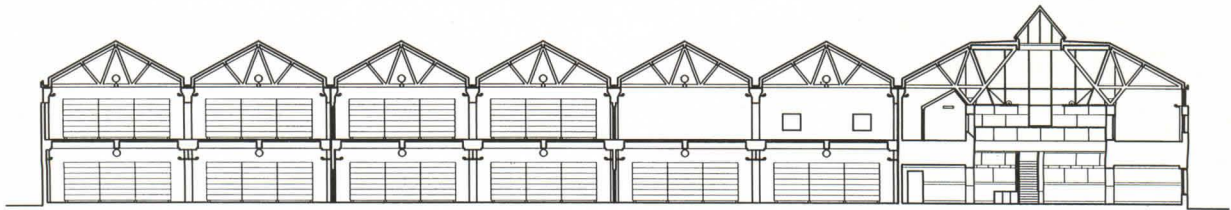
Visitors enter the history center's airy, daylit lobby from under an awkward concrete and acrylic canopy—an extension of the unsightly pergola that covers the entry path to the existing museum next door. Looking over this grand lobby is a loftlike mezzanine level of administrative offices and archival areas. Beneath the office level are darkrooms, a conservation area, and storage. To the north, the vestibule opens onto the two-story library and research center, the new addition's only major public space. The south side of the lobby connects to the existing history museum's galleries, where Custer's boots and Carry Nation's hatchets are displayed alongside other historical artifacts.

Abend creates a light, spacious feeling in the building's public areas with skylights, clerestories, and soaring wood trusses inspired by prairie pole barns. Throughout the interior, changing patterns of daylight animate the spaces; the only ornamental flourishes are expressive structural connections.

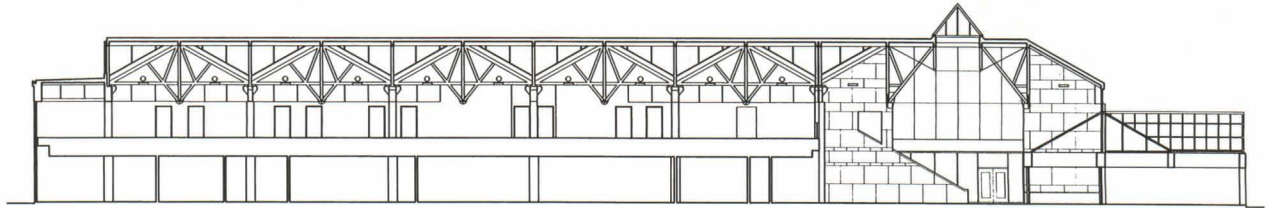
Abend studied architecture under Louis Kahn at the University of Pennsylvania in the mid-1960s, and Kahn's influence is clear in Abend's manipulation of light, simple masses, and basic materials. Kahn never built in the Plains. But the clarity and forthrightness of Abend's Modern barns show that Kahn would have felt at home on the prairie. *Raul A. Barreneche*

Wooden trusses braced by steel tension cables crown entry lobby.

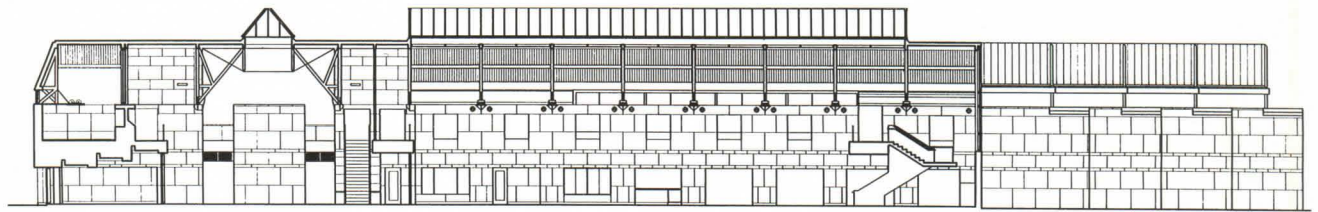




East-west section through storage and reference area



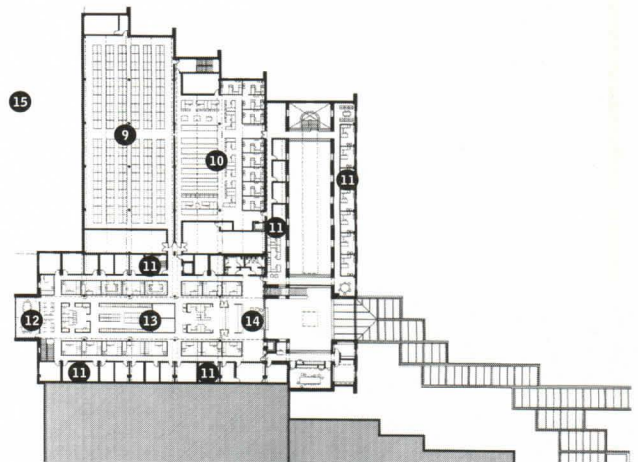
East-west section through offices



North-south section through lobby and office bays



First-floor plan



Second-floor plan

- | | | |
|-------------------|-----------------------|--------------------|
| ① entrance | ⑥ conservation | ⑪ office |
| ② lobby | ⑦ archive storage | ⑫ conference room |
| ③ gallery | ⑧ reading room | ⑬ records storage |
| ④ microfilm lab | ⑨ document storage | ⑭ reception |
| ⑤ photography lab | ⑩ document processing | ⑮ future expansion |

CENTER FOR HISTORICAL RESEARCH, TOPEKA, KANSAS

CLIENTS: State of Kansas, Kansas State Historical Society **ARCHITECT:** Abend Singleton Associates, Kansas City, Missouri—Stephen N. Abend (principal-in-charge), Richard L. Findley, Christopher D. Ross (project architects), Thomas K. Milligan (construction administrator) **ENGINEERS:** Bob D. Campbell & Company (structural), Smith & Boucher (mechanical, electrical), Bartlett & West (civil) **GENERAL CONTRACTOR:** Ferrell Construction **COST:** \$8.7 million **PHOTOGRAPHER:** Assassi Productions, except as noted



W

N

N

N



ER SPACE

Des Moines-based architect Herbert Lewis Kruse Blunck transforms an ordinary warehouse into a compelling workplace focused on industry and light.



A nondescript precast concrete-clad warehouse with a handful of punched openings is an unlikely place to find a coolly rendered essay in translucency and industrial chic. But Herbert Lewis Kruse Blunck (HLKB) has achieved this feat in an industrial park several miles north of Des Moines. The striking interior is directly inspired by client Praxair, a company that sells medical gases, welding equipment, and related products. It is HLKB's third commercial interior with Praxair General Manager Rich Matthes. "We've been working together on various projects for a decade now," explains Principal-in-Charge Cal Lewis. "Matthes is an accountant and knows how to make *the numbers work; I listen and follow his rules.*"

In this case, the rule was to produce a distribution and processing facility with office, conference, and training facilities within a 58,000-square-foot existing warehouse. Praxair's office occupies the westernmost bays of the structure with the regional distribution center to the east. Exterior changes were minimal: HLKB added new aluminum storefront doors and 12 skylights.

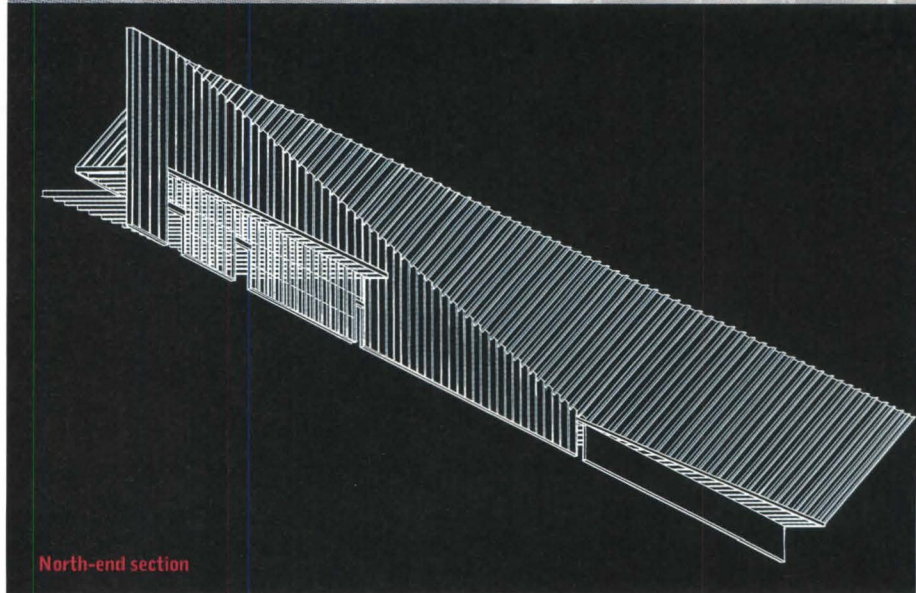
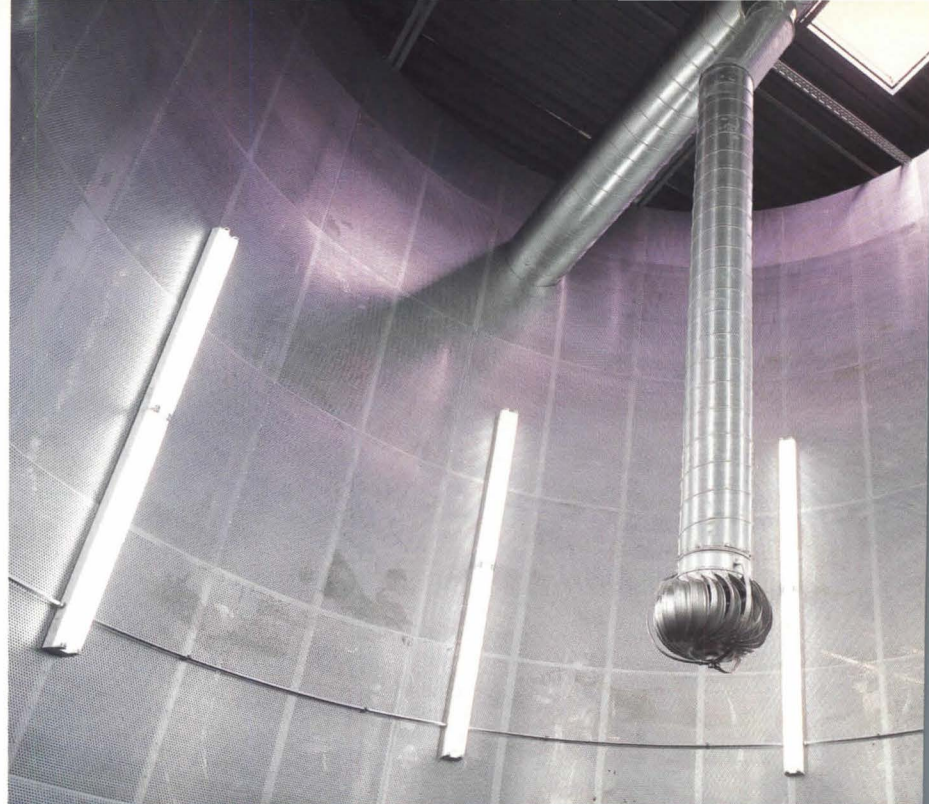
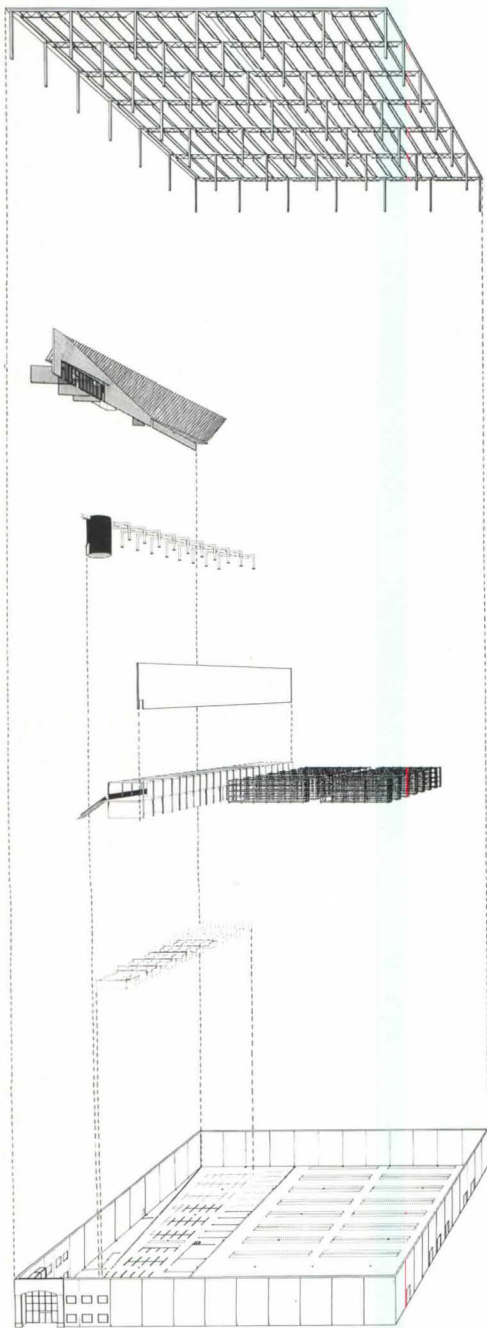
Metal stud awning introduces Praxair's industrial culture at reception area. Desk is constructed of metal safety plating.



Original warehouse's mechanical ducts and high-intensity discharge lighting systems are incorporated into open office terminated by cylindrical conference room. Balcony (left) contains individual offices.

The architect maintained as much of the existing configuration as possible. Mechanical equipment occupied portions of the western wall and dictated a service zone in this area consisting of lobby/reception, conference room, training room, employee lunchroom, and storage.

These spaces are separated from the open office zone by a 28-foot-high metal stud wall that HLKB clad in translucent corrugated fiberglass. To laterally brace this tall wall, HLKB introduced a sloping plane of *the same translucent material* that allows both natural and artificial light from above to filter through to the main office space. The crossing of these two planes—the wall angled in plan and the floating plane

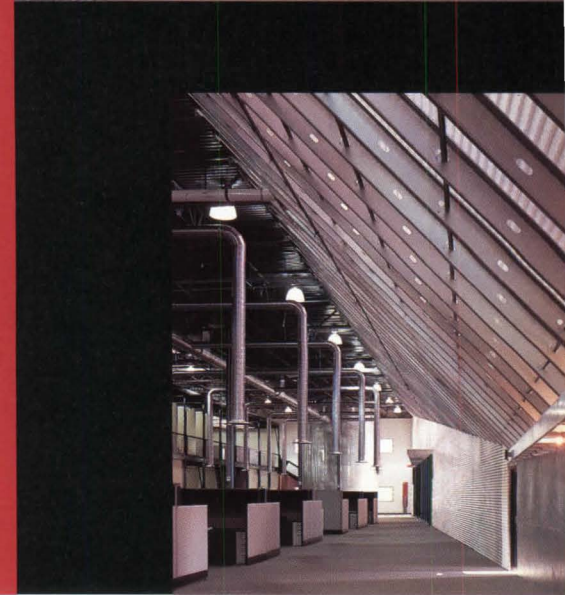
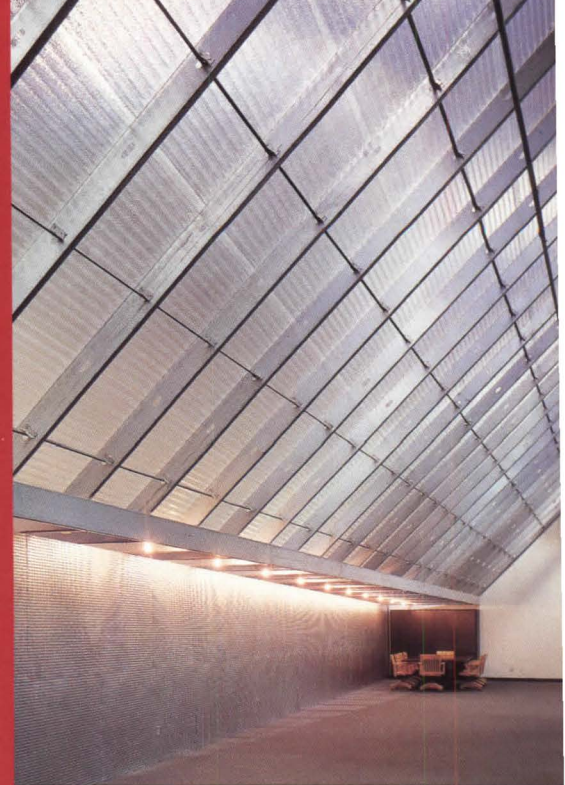


PRAXAIR DISTRIBUTION, ANKENY, IOWA
CLIENT: Praxair Inc. **ARCHITECT:** Herbert Lewis Kruse Blunck Architecture, Des Moines-Cal Lewis (principal-in-charge), Stephen Knowles (project architect)
ENGINEERS: Charles Saul Engineering (structural), Stroh Corporation (mechanical, electrical) **GENERAL CONTRACTOR:** Neumann Brothers **COST:** \$870,000
PHOTOGRAPHER: Farshid Assassi, Assassi Productions

sloped in section—creates a dynamic intersection that continuously changes in appearance through the space.

Dominating the narrow end of the open space on the south side of the wall is a soaring, 28-foot-high circular conference room that extends the palette of translucent materials. The architect originally envisioned this space as an enormous cryogenics tank—a Praxair product—but fortunately, the largest available unit wasn't quite large enough.

Perforated metal-sheathed conference room (top) features industrial lighting and rotating ventilator cap in lieu of diffuser. Lateral bracing of fiberglass-covered stud wall between offices and service zone is perceived as canopy or tilted plane.



HLKB develops the conceit that this cylindrical space is a gas tank that feeds the entire space by running the main ductwork for the open office straight out from its center before branching the ducts into pairs over the cubicles. An air-driven ventilator cap replaces a standard air diffuser, efficiently distributing air around the circular conference table and cleverly reinforcing the industrial esthetic. Sheathed in perforated, galvanized steel panels, the enclosure admits wonderfully filtered light that makes this circular room the company's most sought-after meeting space.

Throughout the interiors, all construction is exposed, including electrical conduit, mechanical ductwork, and steel

Workstations are ventilated by exposed ductwork. At office's north end, tilted plane is supported by cantilevered ceiling plane in section meets angle in plan to create an intriguing intersection in office area (above right).

studs. Even the thin edge of gypsum board is simply finished with a metal edge bead left unpainted to stress its presence. These details help keep construction costs down, but they also produce a challenging interior for a self-described conservative businessman. Matthes may have the head of an accountant—which explains why he would place his office staff in a warehouse—but he is strongly committed to the quality of the workplace.
Edward Keegan



Everts Township Schoolhouse, Otter Tail County, Minnesota

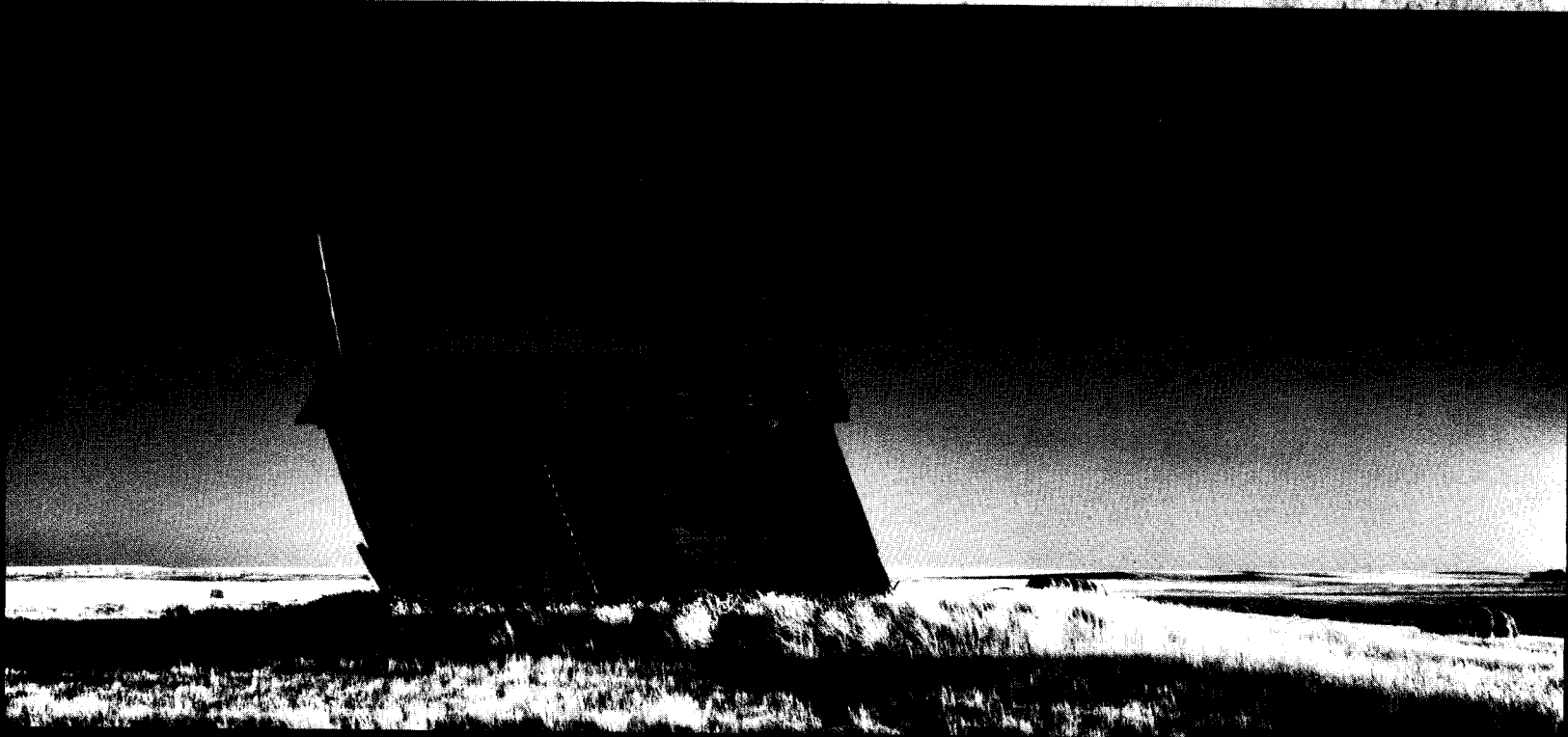


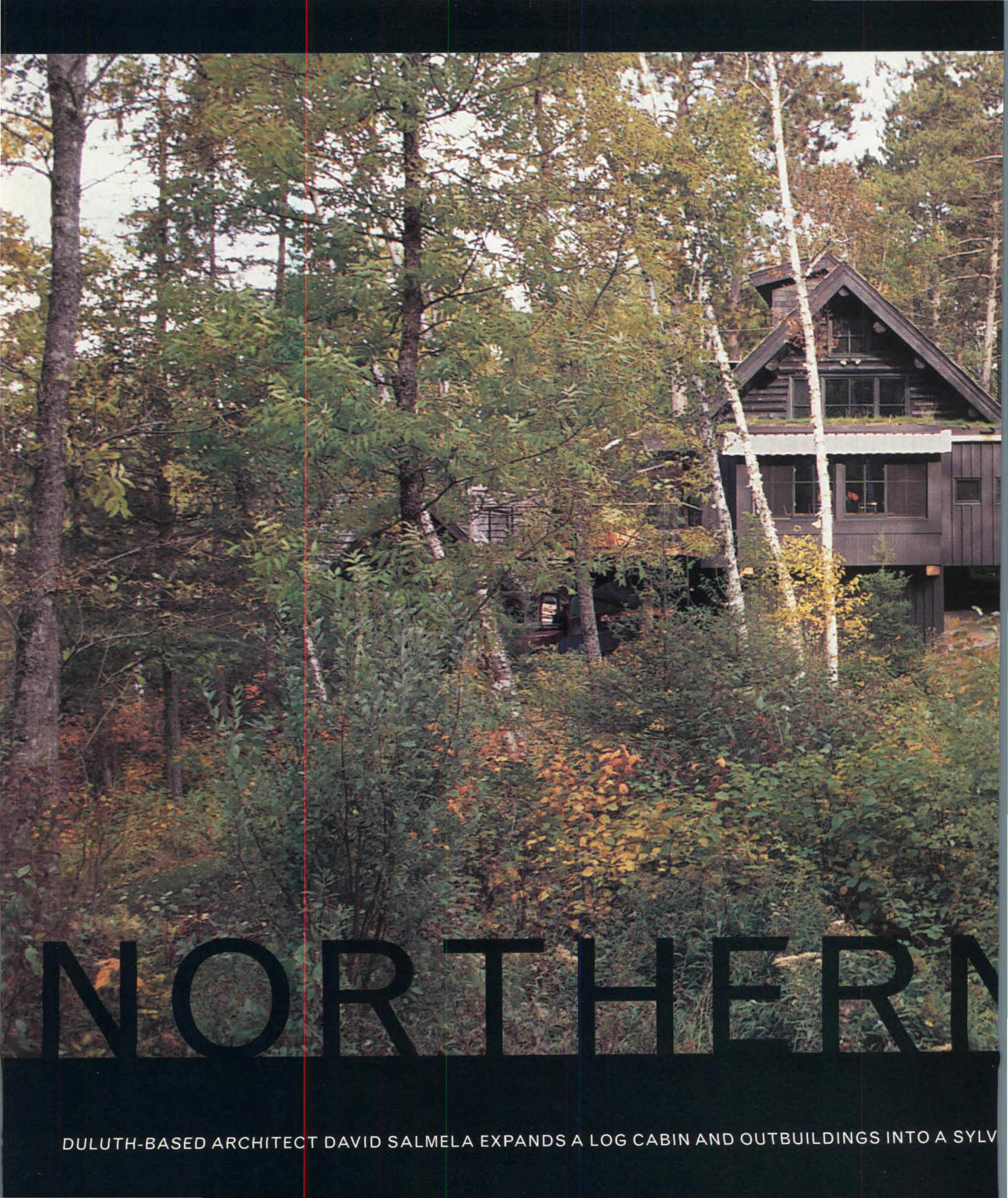
PLAINS ABANDONMENT

For the past six summers, Washington, D.C.-based photographer Maxwell MacKenzie has returned to Otter Tail County, Minnesota, where he was born. From this outpost, he travels the Northern Great Plains to document the architectural traces of the pioneers who settled the region. "To me, this landscape and these buildings—silent houses and falling down barns—possess a profound beauty," MacKenzie writes in a book of his photos, *Abandonings* (Elliott & Clark Publishing, 1995). "They are monuments to the men and women, who, like my ancestors, made long journeys and endured great hardships to reach this remote part of America and build in it a new home."



School near Havre, Montana | Granary near Pendroy, Montana
Homestead near Chester, Montana | Barn near Beach, North Dakota





NORTHERN

DULUTH-BASED ARCHITECT DAVID SALMELA EXPANDS A LOG CABIN AND OUTBUILDINGS INTO A SYLVAN



EXPOSURE

COMPOUND IN NORTHERN MINNESOTA FOR A NATURE PHOTOGRAPHER AND HIS WIFE.

**SALMELA'S GABLED VIKING LONGHOUSE EXTENDS WILDLIFE PHOTOGRAPHER
JIM BRANDENBURG'S ORIGINAL CABIN AND REFLECTS HIS NORWEGIAN ROOTS.**

1 ◀ Existing cabin (gabled mass at left) forms foundation for extensive composition of buildings deep in forest. Sod roofs connect new telescoping longhouse (right) with original structure.

2 ▼ Original cabin (at left) frames view across courtyard to studio and garage.

3 ▼ Porch on east side of cabin leads to new entrance on west.

4 ▼ Concrete-block chimney and cedar screen in front of new longhouse inflect to frame tree.

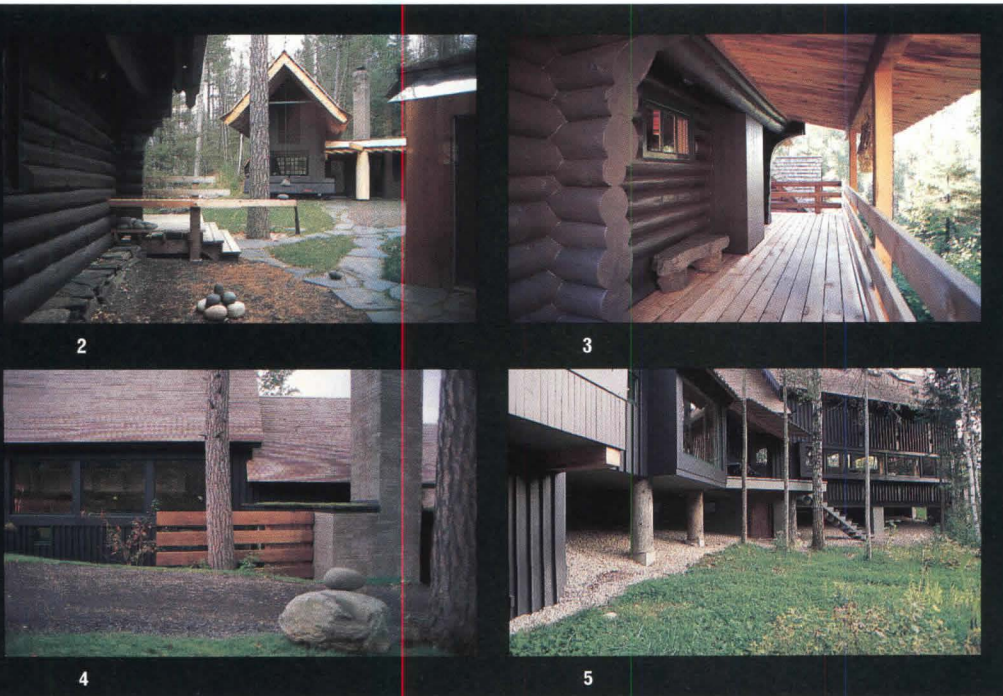
5 ▼ Concrete piers raise additions to original cabin above sloping hillside.

"You can travel from here to the North Pole and only cross two major roads," explains wildlife photographer Jim Brandenburg of the remote North Woods Minnesota location of his house. Brandenburg discovered the site in 1979 when he photographed a nearby waterfall for *National Geographic*. Two years later, he and his wife Judy built a small group of log structures—cabin, guest house, sauna, and privy—on the wooded site. Dubbed "Ravenwood," the 120-acre property formed the setting of Brandenburg's best-selling 1993 book, *Brother Wolf*, a paean to the wolf and nature. Just before its publication, the Brandenburgs enlisted Duluth architect David Salmela to design a house to expand and complement the original buildings, which step down the side of the hill. Salmela chose to respect these structures and add sympathetic buildings to form a tightly knit complex arranged around a courtyard. "Jim came to me with the idea of a Viking longhouse," explains Salmela. "It was a natural extension of his original cabin—and a way of stressing his Norwegian roots." Salmela took this traditional gabled form and began propagating it on the site.

The main 4,600-square-foot longhouse is set at a 45 degree angle to the original cabin and is linked to the existing house by a new single-story, sod-roofed structure that houses the dining room and gallery. The longhouse telescopes into three distinct gabled forms—a single-story, double-height volume that houses a camera storage room and bathroom; a

two-story volume comprising a sitting room on the ground floor and a guest room above; and a soaring three-story volume that contains the main studio on the ground floor with a computer loft workspace and attic suspended above. The original cabin at the north end now houses a kitchen with a master bedroom above.

Across the driveway, Salmela reprises the longhouse form in a two-story studio, which is engaged by a



6 ▶ Gables of longhouse are clad in gray-stained lapped cedar.

7 ▶ Decorative "prow" at southwest end of longhouse is Norwegian-inspired. New taconite wall forms entrance to courtyard complex.



6



7



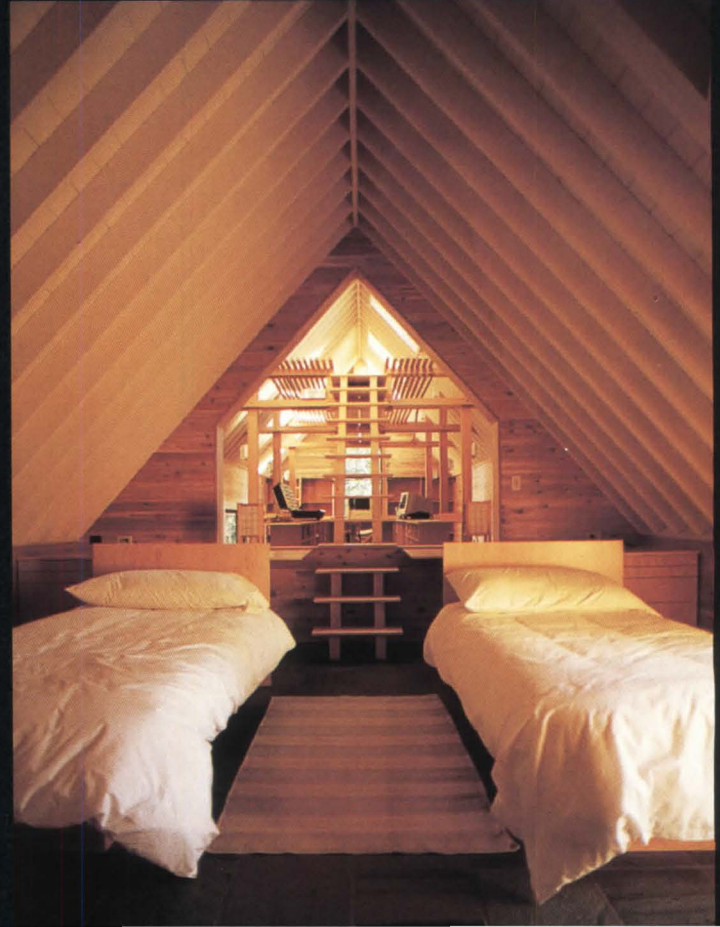
8



9



10



11

EXPOSED STRUCTURAL MEMBERS THROUGHOUT THE INTERIORS EVOKE THE FOREST BEYOND. MATERIALS DISPLAY THE MOTTLED VAGARIES OF UNCHECKED NATURE.

sod-roofed garage. The garage's semicircular form is designed to function as a stage for lectures and seminars. The shape of its concrete-block walls provides natural amplification in the courtyard created between the main house and the garage.

Each of the new buildings is sheathed in a vertical board cedar, stained a cool, bluish black. The same stain is employed on the existing cedar log structures as well. "It's intended as an environmental camouflage," Salmela maintains.

The architect roofed the gabled structures with gray-stained 1-by-6-inch lapped cedar boards with only a 2-inch exposure. This produces long horizontal lines that soften the effect of the steep pitch, transforming the roof planes into a subtly articulated, sloped wall.

The interiors are predominantly finished in cedar with slate floors and a taconite and steel fireplace. Structural members are exposed, an architectural evocation of the forest beyond. Horizontal planes, including the countertops and floor of the computer loft that floats above the main studio, are rendered in maple.

From the quirky plan manipulations that define both interior and exterior spaces to neatly honed details, Salmela captures elemental aspects of living in the wilderness with wit and sensitivity. Above all, there's a human quality to Ravenwood that's rare in architecture. Salmela applies natural materials in ways that display the mottled vagaries of unchecked nature, though the house is not intended as a politically correct essay in sustainable design. These sophisticated details, the willful spatial development, and the magnificent natural setting strike deep, emotional chords. Under David Salmela's deft hand, Ravenwood now opens a wide-angle lens to architecture and nature. *Edward Keegan*

- 8 ◀ Stair leads from camera storage room to guest room. Gabled bathroom (right) recalls original privy.
- 9 ◀ Translucent skylight admits daylight to bathroom. Cedar rafters are exposed.
- 10 ◀ Open stair from second-floor guest room leads to attic loft high atop longhouse.
- 11 ◀ Guest room's gabled opening overlooks main computer loft.
- 12 ▶ Original cabin now houses dining room with view of Judd Creek. Walls are sheathed in cedar. Floor is covered in slate tiles.
- 13 ▶ Gallery alcove between original cabin and longhouse frames view.



12



13



First-floor plan

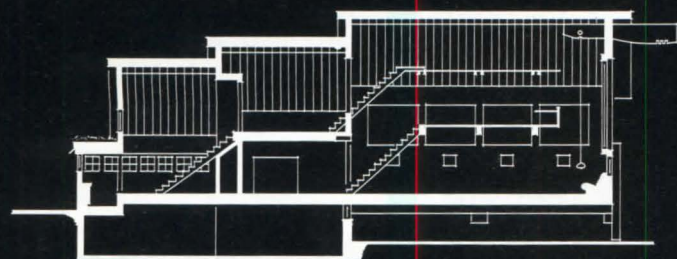
Second-floor plan

Mezzanine-level plan

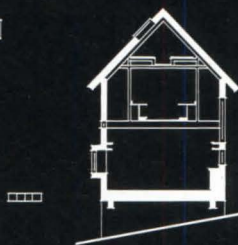
- 1 court
- 2 porch
- 3 entrance
- 4 kitchen
- 5 dining room
- 6 gallery
- 7 sitting room
- 8 studio
- 9 camera room
- 10 garage
- 11 existing privy
- 12 wood-fired boiler
- 13 firewood storage
- 14 existing guest house
- 15 existing sauna
- 16 guest bedroom
- 17 computer loft
- 18 main bedroom
- 19 storage
- 20 attic loft

BRANDENBURG HOUSE AND STUDIO, ELY, MINNESOTA

CLIENTS: Jim and Judy Brandenburg **ARCHITECT:** Salmela•Architect (project initiated by Salmela Fosdick), Duluth, Minnesota—David Salmela (principal-project architect), Cheryl Fosdick, Brad Holmes, Curt Holmes (project team) **ENGINEER:** Carroll & Franck, Hurst & Henrichs (structural) **CONSULTANTS:** Monson Interior Design (interiors), Entertainment Design (audiovisual) **GENERAL CONTRACTOR:** Rod & Sons Carpentry **COST:** Withheld at owners' request **PHOTOGRAPHER:** Jim Brandenburg



North-south section through longhouse



East-west section through longhouse and earth-bermed garage

DAVID SALMELA: BUILDING A NEW VERNACULAR



At 5 feet, 2 inches tall, Duluth architect David Salmela counters the Minnesota stereotypes of lumberjack Paul Bunyan and the mythical “above average” children of Garrison Keillor’s Lake Wobegon. Salmela was raised in Sebeka, a farming town of 800 located three hours west of Duluth. “I learned a lot about being an architect growing up on a farm,” the 52-year-old architect maintains. “Cutting hay, planting corn—there was a pattern and an order to it that was quite beautiful.”

At age 14, Salmela visited Minneapolis’s Walker Art Center and discovered the Abstract Expressionism of Franz Kline and Jackson Pollock. Returning to the family farm, he began producing drip paintings in the family barn, which he showed at the county fair where they “caused quite a stir.” Interested in art and architecture, Salmela was particularly struck by a *Time* article on Le Corbusier while he was in junior high school. “I had never in my life seen anything this amazing,” he remembers.

Salmela left the University of Minnesota after only two quarters and attended a three-month-long drafting course in the evenings while working as a draftsman for a series of engineering firms. His first job with an architecture firm lasted only a year. He was

already running jobs based on his engineering experience, but left in search of design opportunities. Virginia, Minnesota-based architect Damberg and Peck offered Salmela the chance to design, and he worked for the firm from 1970 through 1989—as the firm grew from three to 15 architects.

Salmela’s architectural education proceeded at his own pace. “I was reading everything I could get my hands on,” he explains. “I would go to the university library and look at all the foreign journals.” It was here that Salmela discovered a group of architects who matched his Scandinavian heritage—Alvar Aalto, Gunnar Asplund, and Eliel and Eero Saarinen remain particular favorites. “I’m very much a Modernist at heart,” he notes.

Salmela’s penchant for exploring serious architectural precedents has led to award-winning buildings that share a wood-framed vernacular. In 1985, AIA Minnesota honored Damberg and Peck’s Wick Residence with a design award, the first given to an architect outside the Twin Cities in 25 years. “I had never really been part of the architectural community,” explains Salmela, who designed the award-winning house. “I lived at the end of the road where architects can exist—there’s only wilderness north of here.”

In 1990, Salmela opened his own practice in Duluth. He maintains a one-man shop and completes all aspects of a project by himself: “I’ve found I work best alone.” Working out of a home office looking onto Lake Superior, Salmela completes two to three projects a year. While he’s worked at a variety of scales in the past, he now focuses on residential projects. “There are too many owners on nonprivate projects,” the straightforward architect maintains. “Committees change in the middle of a project. It’s difficult to realize a distinct concept with these groups.”

Clients come to Salmela for a particular expression of their typically Scandinavian roots. Salmela is currently completing a house renovation and addition for client Amy Loken, a social activist and horse trainer, outside Duluth. “You feel at ease in David’s houses,” Loken maintains. “Yet they project a sense of orderliness—they sit in the woods and fit their environment comfortably.” The quirky formal inventiveness that distinguishes one project from the next is a result of each individual client’s taste and Salmela’s interpretation of them. “I do try to interpret the owner,” he says. “I’m always trying to find the option that energizes them.”



MENDING FENCES

LOOM ARCHITECTS' COLORFUL CHAIN-LINK PARTITIONS ESTABLISH A COMMUNITY GARDEN IN A GRITTY NEIGHBORHOOD OF MINNEAPOLIS.



Knox Garden in Minneapolis is an urban model for achieving maximum civic presence through minimal means. Designed by Minneapolis- and Berkeley-based architect Loom, the park is a community endeavor sponsored by the Minneapolis Park and Recreation Board and the nonprofit Sustainable Resources Center (SRC). These agencies sought to transform a vacant, inner-city lot into an educational and recreational amenity for the Near North neighborhood. Area residents, job trainees, and school children volunteered their labor, building the 5,375-square-foot park from salvaged materials and leftover warehouse stock for a final cost of \$9,000.





KNOX GARDEN, MINNEAPOLIS, MINNESOTA

CLIENT: Minneapolis Park and Recreation Board, Sustainable Resources Center **ARCHITECT:** Loom, Minneapolis, Minnesota, and Berkeley, California—Raveevarn Choksombatchai, Ralph Nelson (principals), Benjamin Awes (assistant) **VOLUNTEER CONSTRUCTION:** TreeTrust, Sentence to Serve, neighbors, and students **COST:** \$9,000 **PHOTOGRAPHER:** Chris Faust

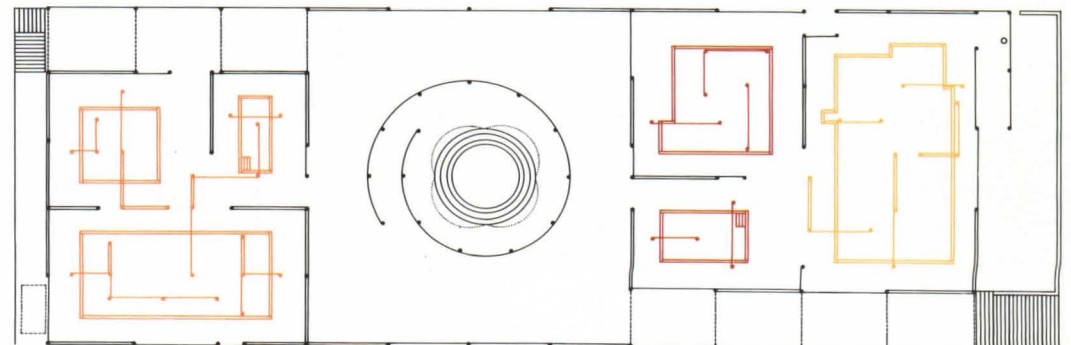




Painted chain-link fences define garden rooms, providing color in winter when plants are dormant. The Apple Room at the center is devoted to group gatherings, while Eve's Space to the east and Adam's Space to the west are divided into smaller garden plots and spaces for play. SRC Program Manager Melinda Hooker notes that "the community has strong religious grounding so symbolic biblical references like the central apple tree were very important." Native flowers, vegetables, and herbs in each room correspond to the fencing's color: Sunflowers are planted in the yellow room and bleeding hearts, in the red room. Through this modest, gritty design, Loom demonstrates that ubiquitous, cheap materials don't have to be ugly. In Knox Garden, beauty is found where its possibility is usually denied. *Deborah Karasov*
Deborah Karasov is editor of Public Art Review.



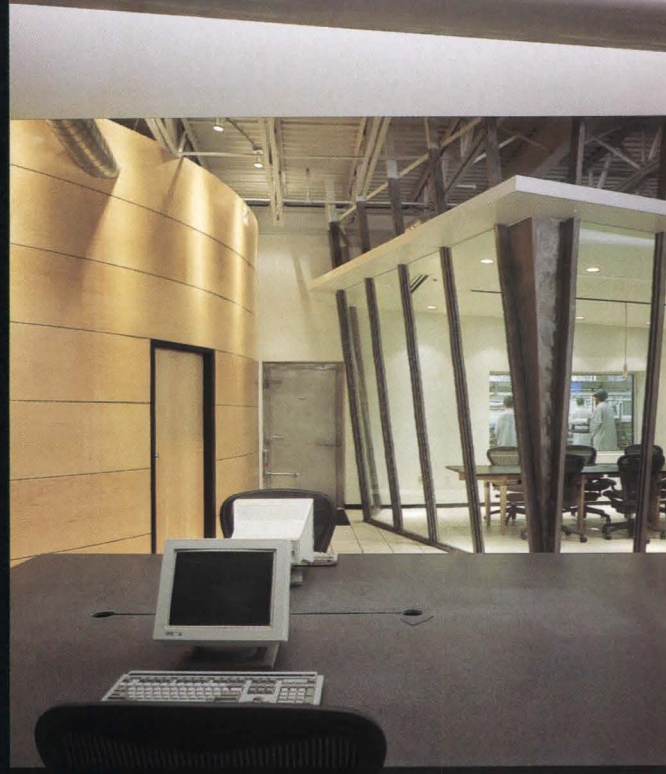
Site plan



Garden plan

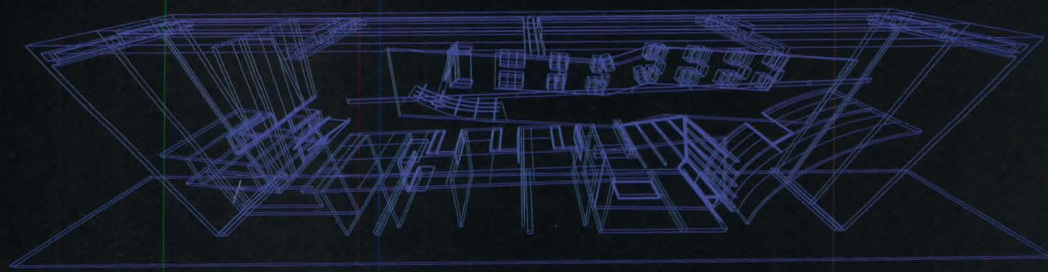
Meatpacking has vastly improved since muckraker Upton Sinclair's 1906 exposé of the industry, *The Jungle*. This progress is not lost on Omaha architect Randy Brown, whose design of Greater Omaha Packing exposes the process in a positive light. Windows afford clear views of packing operations. Buyers not only see steaks bound for clients such as celebrity chef Wolfgang Puck, but the material palette that inspired Brown's design: stainless steel, perforated metal, glass, and tile. Brown neatly explains the transformation of industrial materials into finished design surfaces while quietly civilizing the mechanics of meat.

The 3,300-square-foot sales office is one large room, bookended by two private executive suites and flanked by middle-management offices and a conference room. Sales and marketing employees share a worktable running the length of the space. "Management wanted to promote teamwork," explains Omaha native Brown, a 1991 graduate of the University of California, Los Angeles, who returned home to start his own firm three years ago. Light and exterior views are thus also democratized. Brown arches and angles screens of wood, metal, and glass through the rectilinear space, completing the image of meatpacking as a thoroughly modern, even hip, enterprise. *Reed Kroloff*



LEAN

Omaha architect Randy Brown trims the offices of a meatpacking company.





PIECE

Linear office (facing page, drawing) occupies northern end of packing plant, which is visible through conference room (facing page, top and right). Reception desk (facing page, bottom left) is incorporated into shared worktable (above), which is flanked by private offices.



GREATER OMAHA PACKING, OMAHA, NEBRASKA

CLIENT: Greater Omaha Packing—Henry Davis (president), Angelo Fili (vice president)

ARCHITECT: Randy Brown Architect, Omaha—Randy Brown (partner-in-charge), Mike Merritt, Christian Petrick, Jason Winterboer, Tim Wurtele (project team)

GENERAL CONTRACTOR: John Luce Interiors **PHOTOGRAPHER:** Farshid Assassi

ZOO





A new visitors center at the Kansas City Zoo teaches lessons in sustainable design.

STORY



Adjoining artificial pond in sprawling Swope Park, pavilion's curved copper roof and cedar shingles create quiet yet visible entry to zoo (previous pages). Curved glulam beams and southern pine post-and-beam structure (left) create rustic feel in lobby of IMAX theater.

The modern zoo has come a long way from its Victorian beginnings, when visitors gazed on rows of gilded cages displaying exotic fauna like precious museum artifacts. Today, zoos try to simulate animals' natural habitats in cageless environments. At the Kansas City Zoo, resident animals roam free in open landscapes that re-create the African savannah and the Australian outback.

Underlying this carefully choreographed theming is the goal of creating ecologically balanced environments and teaching visitors about sustainable development. Kansas City-based Berkebile Nelson Immenschuh McDowell Architects (BNIM) followed this green agenda in designing the zoo's new entrance pavilion and visitors center.

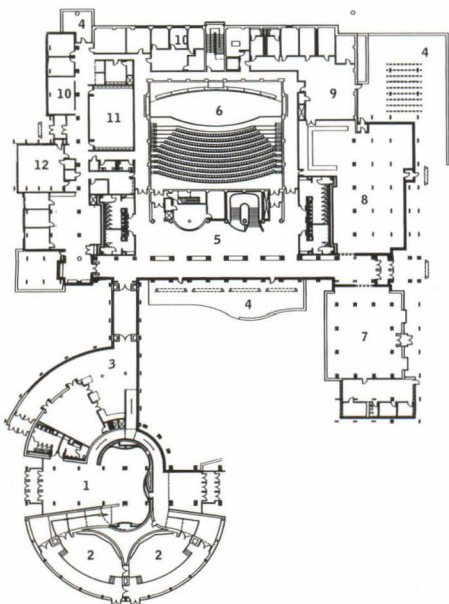
Principal Robert J. Berkebile divided the 72,000-square-foot building into two distinct volumes.

Visitors enter a curved, single-story building crowned by a sinuous copper roof and a stepped, glazed tower that houses a daylit lobby and a walk-through exhibit exploring man's conquest of nature. A lower volume to the north houses a suite of administrative offices, classrooms and study areas, an IMAX theater (a first among zoos worldwide), a café, and a gift shop.

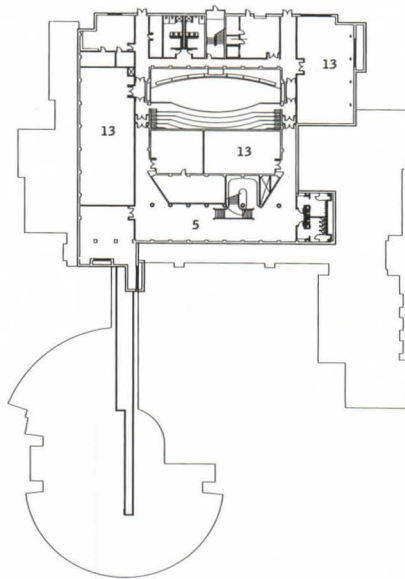
Berkebile's material palette—concrete flooring, timber posts, and recycled copper roofing—is deliberately simple, selected for its environmental friendliness, energy efficiency, and subtle hues. "With age, the exterior wood siding will turn silver, and the roof will patinate, making the building recede into the background," maintains Berkebile. Inside and out, the architect fully expresses connections and assemblies to give the center the informal, rustic quality of a summer camp. *Raul A. Barreneche*



Daylight fills administrative reception area, finished in unadorned concrete and wood (above left). Post-and-beam tower creates a lofty entrance to interactive exhibit area (above right).



First-floor plan



Lower-level plan

- | | |
|-----------------|--------------------------|
| ① entrance | ⑧ dining |
| ② exhibit area | ⑨ kitchen |
| ③ waiting area | ⑩ office |
| ④ outdoor patio | ⑪ multiuse room |
| ⑤ lobby | ⑫ conference |
| ⑥ IMAX theater | ⑬ storage/
mechanical |
| ⑦ gift shop | |

EDUCATION PAVILION, KANSAS CITY, MISSOURI
ARCHITECT: BNIM Architects, Kansas City, Missouri—Robert J. Berkebile (principal), Thompson F. Nelson (project principal), James C. Tomlinson (project manager/project architect), Dale Duncan (construction administrator), David Bell, Clint Blew, Dan Maginn, Keith Mueller (project team)
LANDSCAPE ARCHITECT: Bassett & Associates
ENGINEERS: Structural Engineering Associates (structural), M.E. Group (mechanical, electrical) **CONSULTANTS:** Acoustical Design Group (acoustic), Clanton Engineering (lighting), ENSAR Group (energy modeling)
GENERAL CONTRACTOR: J.E. Dunn Construction Company **COST:** \$16 million **PHOTOGRAPHER:** Michael Sinclair

DO
THE
AIA
HONOR
AWARDS
ALWAYS
REFLECT
THE
BEST
DESIGN
IN
THE
LAND?

**AIA's
HONOR
SYSTEM**

By Heidi Landecker

Why did the Caribbean Marketplace, by Miami architect Charles Harrison Pawley, win a national AIA honor award in 1991? Did the vernacular Haitian-style market represent one of the best designs that came to the AIA jury's attention that year? Or was it awarded for the process that got it built, and for the civic-minded aspirations of its owner, who hoped to infuse Miami's Haitian community with a lively commercial building that would draw tourist dollars?

The question of whether to honor good design or good deeds is one that appears to have troubled AIA honor awards juries for decades. Even the program's founders considered design to be secondary to enhancing "our profession's public relations," according to the February 1949 issue of the *AIA Journal*, which featured the first honor awards. "The motion picture world secures magnificent publicity through its annual award of Oscars," the *Journal* noted. "Three or four awards a year, with accompanying publicity, would ... do a lot toward making the public more architect-minded."

Publicity is still part of the honor awards' goal, an intention that has miffed some jurors and confused others. The AIA,

according to 1992 juror Peter Forbes, was unhappy that his jury conferred only nine national honors in a program that averages 15 awards a year. Forbes claims AIA staff pressured the jury to offer more because, "They told me, 'The more widespread the awards and more diverse the categories, the more press we can get for the AIA.' To my mind, the awards are to honor excellence in design, not to make the AIA look better," adds Forbes. "If the building isn't good, it shouldn't receive an award."

"The awards should reflect the broad diversity of architectural practice," counters Fimmel Smith, director of the AIA's honor awards program from 1990 to 1995. Smith's successor, Robin Lee, points out that the awards should both "show the public what we consider good architecture, and honor a level of excellence against which architects can match their own work."

Selecting the jury

To accomplish these goals, the AIA's Committee on Design each year convenes an Awards Task Group to select three separate juries for architecture, urban design, and interiors. The architecture jury must

include two former honor award recipients—one recent winner and one who received the award more than five years ago—and a past recipient of AIA's annual Architecture Firm Award. The group also seeks ethnic and geographic diversity among jury members, and a mix of experience and firm size. Ideally, for the jury, an experienced designer of skyscrapers should sit at the table with an architect known for child-care centers and another who crafts houses and a fourth who preserves landmarks. Furthermore, the juries aim to include not only architects, but architecture critics, landscape architects, and academics. An architecture student and an associate AIA member also sit on the jury.

Unwritten requirements for jury members are that they also will be able to function as part of a group, that they will take the program seriously enough to read every one of the hundreds of binders submitted, and that they will be able to commit three full days without leaving early. Once finalists are selected, jury members are also required to make site visits to at least one project, reconvene to report to other members, and make final selections.



1949

DR. AND MRS. ALEX J. KER RESIDENCE
Marin County, California
Frederick L. Langhorst, Architect

1952

LEVER HOUSE
New York, New York
Skidmore, Owings & Merrill

1964

ART AND ARCHITECTURE BUILDING
Yale University, New Haven, Connecticut
Paul Rudolph

FORMER JURORS FEEL THAT THEIR EXPERIENCE WAS REWARDING, BUT THE PUBLICITY GREETING THEIR HONORED SELECTIONS WAS NOT.

From low-key to glitzy

Throughout the program's 48-year history, the number of AIA awards has mushroomed. From only two honors and 15 merit awards in 1949, the program increased to between 10 and 20 awards in the 1960s through 1980s, to 28 full accolades for urban design, architecture, and interiors this year. The fanfare surrounding the awards has swelled too, from a low-key event in which architects sent one 30-by-40-inch panel to the annual AIA convention, to the extravagant—and exclusive—black-tie Accent on Architecture dinner, held every winter in Washington to celebrate architecture. From 1990 until 1994, the AIA celebrated its choices through slides or films at Accent and presented them at the AIA's annual convention in May.

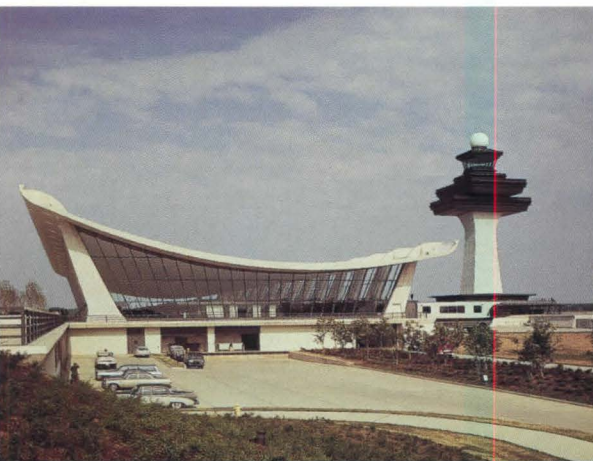
Awards Task Group Chair Barton Phelps contends that Accent's program of "loud

music and huge slides" eliminated the ability to "share and compare," or to frame an intellectual symposium that would allow practitioners to understand the paragon projects. Other architects criticized Accent's ticket price (the cost is \$125 a plate for members, \$200 for nonmembers) and its parade of celebrity speakers, such as Brooke Shields, Tom Selleck, and Luci Baines Johnson, who, in 1992, referred to the "American Association of Architects," suggesting she knew little about her hosts or the projects being honored.

The AIA's attempts to trumpet the awards to the public have also changed over the decades. Most of the former jurors interviewed for this story feel that, although their experience on the jury was rewarding, the publicity that greeted their selections was not. Other than printing the winners in its own magazine (where, since entries in the

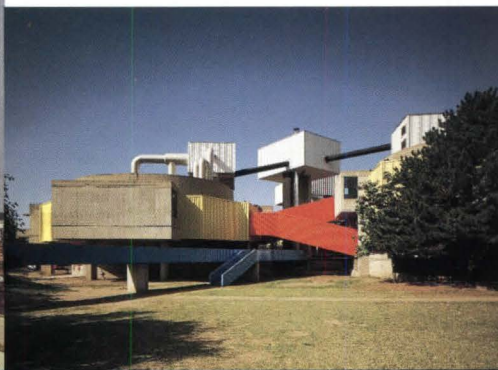
competition can be up to five years old, they have often been published before), the AIA has had slim success in achieving for the honor awards anywhere near the attention paid the Oscars upon which they were modeled. For a few years, the Institute sent copies of the rather expensive films and slide shows made for Accent to local chapters, until "they found out they weren't using them," according to Melissa Houghton, director of Accent on Architecture, now run by the American Architectural Foundation. Even if chapters screened the canned shows, the complaint among most architects is that the honor awards should reach a wider public audience. "The AIA should print an annual awards magazine and get it in the supermarkets," chides former juror Michael Rotondi. "If they can lobby Washington, they ought to be able to do that."

Along with the way projects are honored and publicized, the AIA has also defined and redefined the type of work architects should submit, reflecting the tenor of the times: Urban design projects were encouraged from 1964 to 1969, at the height of urban renewal. A separate jury for "extended use" buildings was added in 1976,



1966

DULLES AIRPORT
Chantilly, Virginia
Eero Saarinen & Associates



1972

STAGE CENTER
Oklahoma City, Oklahoma
John M. Johansen



1978

YALE CENTER FOR BRITISH ART
New Haven, Connecticut
Louis I. Kahn and Pellecchia & Meyers

saluting the Bicentennial-induced momentum of the preservation movement. This category was abolished in 1983, and renovations and restorations are now considered alongside new construction. Criteria for energy-efficient buildings were added in 1977 and subtracted two years later. In the 1980s, the awards criteria were again rewritten to encourage more urban design entries.

New criteria for jurors

But the most radical changes occurred in 1992, in response to the small number of projects premiated that year and to placate practitioners who never won and wanted to add special awards for often overlooked building types. AIA staff and the Awards Task Group feared, however, that such special awards would water down the program. Reckoning that, ultimately, the 652 projects that had been winners since the program's inception reflected the juries that chose them, the Awards Task Group set out to rewrite the judging criteria so that a broader range of buildings could win.

"The call for entries sounded as if any architect could enter and win for any building," Task Group Chair Barton Phelps

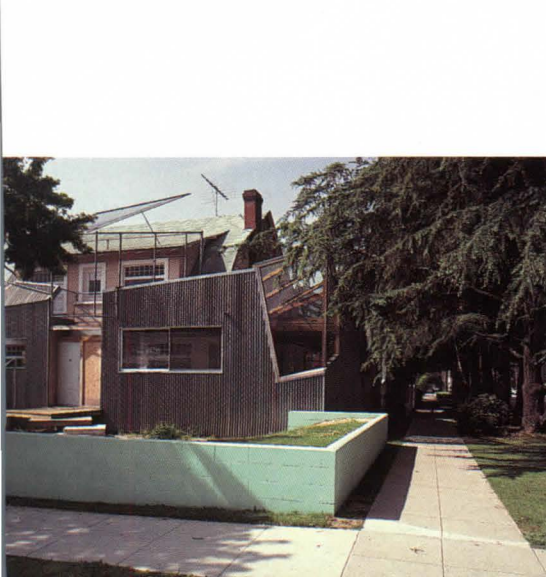
recalls. "In fact, there was an elitism and selectivity to prior winners." Group members included Fred Bland of Beyer Blinder Belle and Frimmel Smith; Phelps asked for former jurors Joseph Esherick, Robert Frasca, and George Hoover to join as consultants. Their conclusion, summarized in a memo to Douglas Engebretsen, then secretary of the AIA Board of Directors, was that the national awards should honor a broader constituency. The task group wrote: "Honor awards are most commonly won by well-known architects and often for previously published work. Winning programs are thus often distinguished by unusual programs, sites, and budgets that render them particularly valuable to publishers." Explains Phelps, "We were responding to those who saw the highly formal nature of the winners as disengaged from the pragmatics of day-to-day practice."

Ultimately, the task group rewrote the jury guidelines so that the well-known design stars who won frequently—Eero Saarinen and Richard Neutra in the 1950s and 1960s; Skidmore, Owings & Merrill; I.M. Pei & Partners; and Michael Graves in the 1970s and 1980s—would be joined in the

1990s by other architects whose work did not necessarily conform to a conventional definition of high esthetics, or what juror Phillip Morris once dubbed "architecture with a capital A." Projects would be honored not just for "design advancement," as the new criteria obliquely refer to esthetic innovation, but for addressing social problems. Under the new rules, "social advancement and technical advancement can, in their own ways, make projects exemplary."

With the new criteria, jurors could not "fall back on their knee-jerk, formal esthetic reactions," Phelps maintains, but would be asked to consider designs that might be very different from their own experiences. "The criteria are an attempt to raise the intelligence of the jury."

Many jurors find these criteria consistent with their mandate when faced with the hundreds of binders that the AIA receives each year. "Architecture should embrace a cathedral or a state capitol, a gas station, a vernacular building, or a commercial building by the side of the road," intones the champion of quotidian architecture Robert Venturi. "Jurors who don't see that are just being snobbish."



1980

GEHRY RESIDENCE
Santa Monica, California
Frank O. Gehry & Associates

1983

PORTLAND BUILDING
Portland, Oregon
Michael Graves, Architect

1984

VIETNAM VETERANS MEMORIAL
Washington, D.C.
Maya Lin and Cooper-Lecky Partnership

But others see the definitions as unnecessary—and even damaging, symptomatic of our politically correct era in which everyone wins, and nobody should be made to feel inferior, lest there be charges of elitism or racism. “If we can possibly find a project for poor people by a female Hispanic architect from the barrio,” complains Forbes, “we’re going to give it an award,” regardless of whether it exhibits an iota of esthetic inventiveness. “The mandates make buildings slip in because they are only socially relevant,” says Perkins & Will’s Chicago-based Design Principal Ralph Johnson. “You shouldn’t have to mandate a jury; if the building is good, the jury will pick it anyway.”

Ignoring the avant-garde

Still other architects contend that, new criteria or old criteria, the AIA rewards run-of-the-mill buildings and fails to elevate the progressive, cutting-edge work of more iconoclastic designers. “The winners are pretty conventional,” notes previous winner and juror Thom Mayne. “I’m surprised by some of the projects that don’t get awards. Eric Owen Moss and Frank Gehry are very inventive, but the AIA seems more con-

cerned with trying to honor its own. They never seem to include the most interesting characters.” Adds Peter Eisenman, “If you don’t get good juries, you don’t get good awards.” Eisenman, who has won three honor awards but only served as a juror once, believes the AIA is conflicted over whether to premiate signature architects or its general membership. “If the jury comes from the rank and file, you’re going to get rank-and-file solutions,” Eisenman asserts.

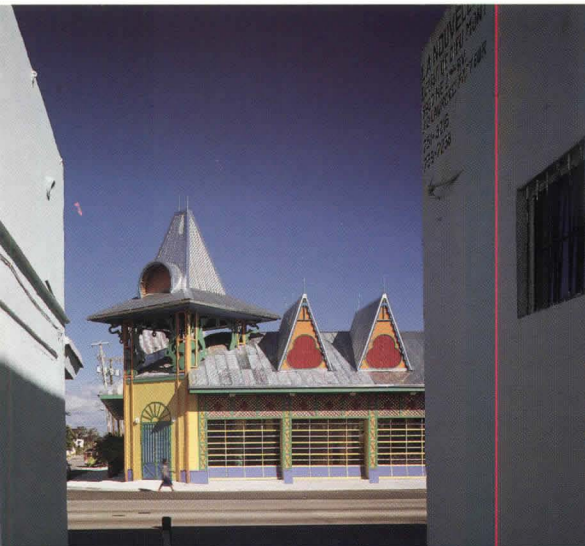
There’s no doubt that the makeup of juries and the chemistry among jurors differs every year and is reflected in the winners. Often, one jury’s choices are a reaction to the choices—or the rejects—of the previous year. The smallest number of national honor awards ever given, for example, was seven, in 1953; the largest number ever awarded was 38—the following year. Regardless of criteria, the design quality of awarded projects wavers, too. Notes *Washington Post* architecture critic Benjamin Forgey, who has covered the awards for more than a decade, “The pendulum swings from emphasis on esthetics to emphasis on social issues.” Sometimes ideology holds sway over design: “People

align themselves along stylistic categories,” admits Hillier Group Principal Alan Chimacoff, a juror in 1992.

Before the new judging criteria, juries came up with their own definition of design excellence, and the chair held considerable power. Selections varied from the diverse 19 projects, including the Caribbean Marketplace, in 1991 (Robert Venturi’s year as chair) to the nine custom-designed houses and museums that constituted the choices of the 1992 jury, chaired by James Freed. “The result was a program that did not serve architects particularly well,” former honor awards program director Smith explains. “It didn’t paint a picture that architects solve problems and create spaces and places that serve human needs.”

The projects chosen since the new criteria went into effect do paint that picture. While some winners, such as Machado & Silvetti’s Princeton Parking Structure, clearly represent high-level design expertise; others, such as Seidel Holzman’s The Farm housing complex, represent architects’ achievements in the face of difficult social obstacles.

There are also many more winners lately:



1991

CARIBBEAN MARKETPLACE
Miami, Florida
Charles Harrison Pawley, Architects



1992

TEAM DISNEY BUILDING
Lake Buena Vista, Florida
Arata Isozaki & Associates and
Hunton Brady Pryor Maso Architect



1993

202 ISLAND INN
San Diego, California
Rob Wellington Quigley

THE AIA REWARDS RUN-OF-THE-MILL BUILDINGS AND FAILS TO ELEVATE THE CUTTING-EDGE WORK OF MORE ICONOCLASTIC DESIGNERS.

From nine in 1992, the winners doubled in 1993; and there were 28, 25, and 27 in the following three years. Interestingly, the criteria's framers maintain that some particularly innovative buildings now win precisely because of the new jury guidelines. Peter Eisenman's Wexner Center for the Arts was entered numerous times before it received a 1993 honor award for "design advancement," a category that allows juries to exalt the avant-garde.

Social realities

To architects, the AIA's honor system, whether for design or deeds, is still the highest accolade in the land. "The recognition of your peers is the most valuable thing you can have," remarks Chicago architect Carol Ross Barney, who won honor awards for the Glendale Heights Post Office (1991) and the Cesar Chavez School (1994).

Unfortunately, that accolade may also signify an increasingly insular profession. As architects examine and award themselves, their unbuilt projects, and their socially relevant buildings, they grow increasingly estranged from those who shop, work, learn, and play in the places they design. For example, it may surprise members of the 1991 jury to know that, for all its cheery demeanor and thoughtful goals, Miami's Caribbean Marketplace failed as a shopping complex. Built to recall a real Haitian market, the building is fundamentally out of scale with the single-story, open-air shops in Miami's Little Haiti. Tourists were scared away by crime; by late 1991, the market had closed three times. In a desperate attempt to save an ideal, the city and state recently bought the building for \$100 in a foreclosure sale; the market's future is uncertain. The building's design

may not be at fault, but what passersby see is a colorful, out-of-scale building—so unlike its surroundings that it has clearly been "designed"—now largely unused. What kind of publicity is that for architecture?

"Once you start making assumptions about social responsibility, it hopelessly muddies the process," contends Thom Mayne. If the AIA truly wants to show architects as shapers of society, Mayne suggests, it should add another new category: honoring architecture with a political agenda. AIA juries would then have to reach beyond one-day site visits and learn from users and communities. If the goals are to show architecture's broader application to society, let society be the judge.

Meanwhile, the AIA continues to refine its awards criteria. Yet another task group, chaired by AIA Treasurer Duane Grieve, has completed a study of how the awards "tie in with the current mission and goals of AIA" and presented its findings to the AIA Board of Directors in March. Recommended changes are still under wraps until the board and a blue-ribbon panel of past winners agree upon another new direction for the AIA's honors system.



1995

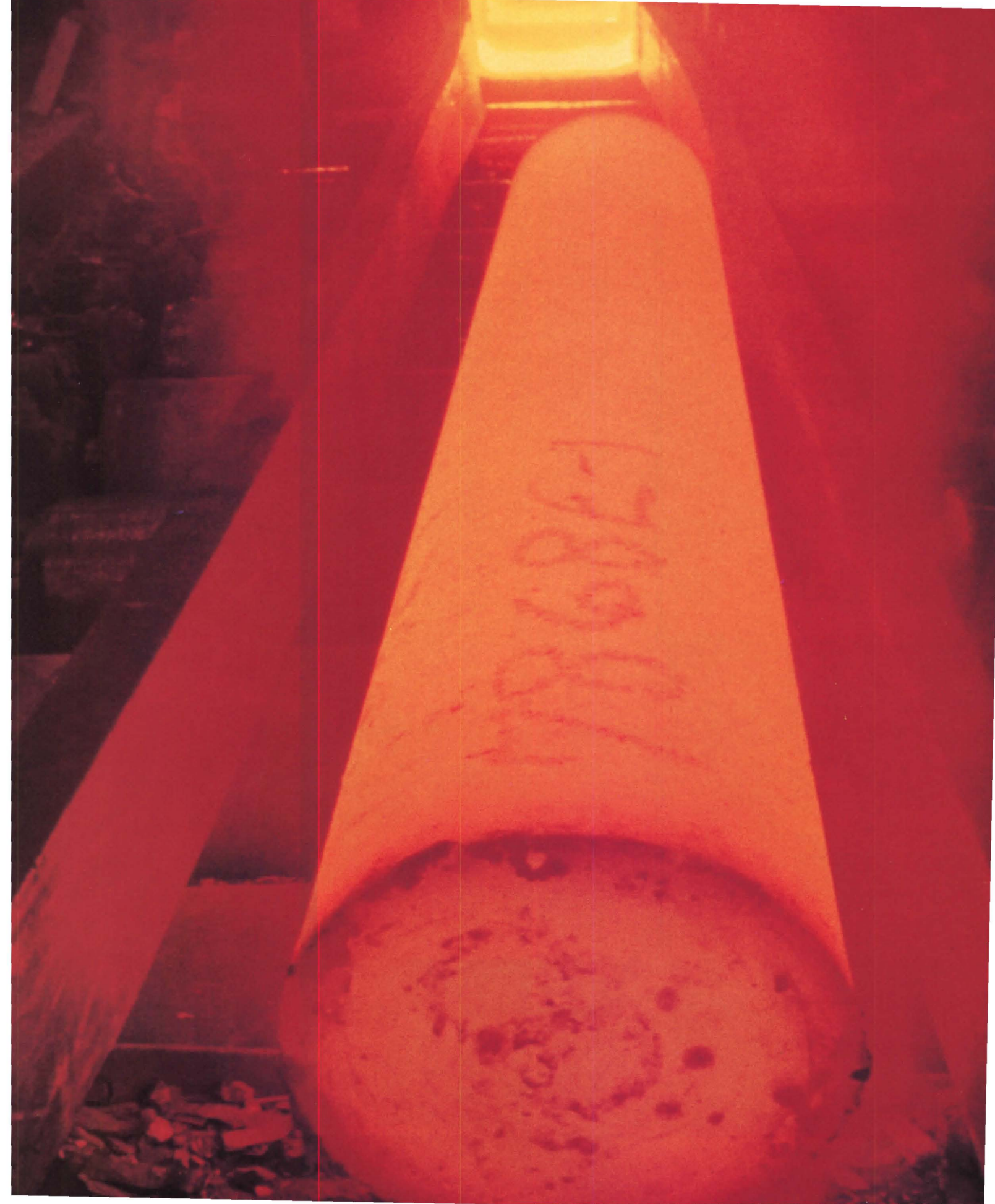
PUBLIC BATHROOM
Boston Center for the Arts
Boston, Massachusetts
Kennedy & Violich Architecture
and Arrowstreet

1996

CLEVELAND GATEWAY SPORTS & ENTERTAINMENT DISTRICT
Cleveland, Ohio
Sasaki Associates; HOK Sports Facilities; Ellerbe Becket; Richard Fleischman Architects; Van Dijk, Pace, Westlake & Partners; and Robert P. Madison International

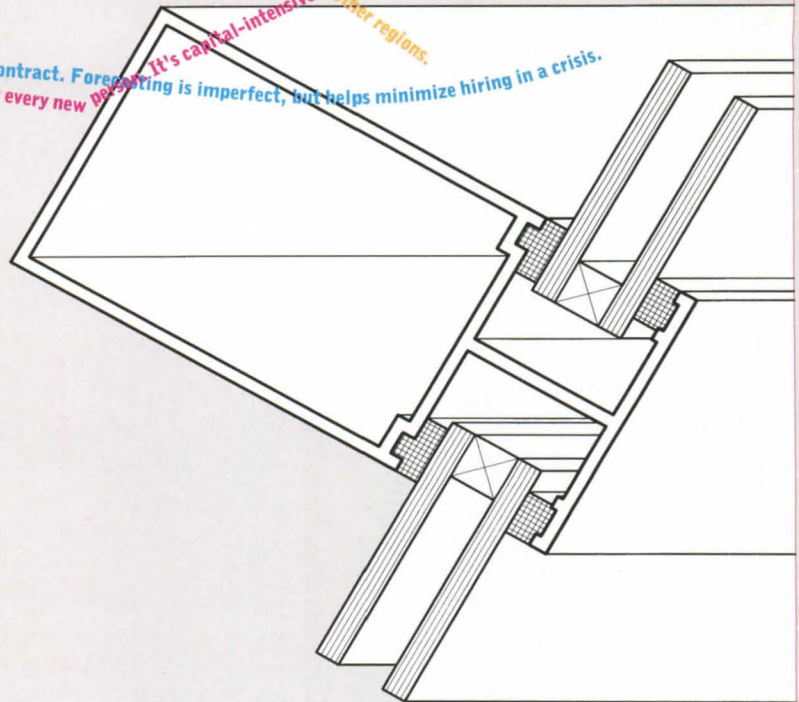
1997

NEW VICTORY THEATER
New York, New York
Hardy Holzman Pfeiffer Associates



17802

managed over what they were 10 years ago. Now you have to get a computer and work under contract. Foreigners are recruited from other regions.
 or quarterly workloads 90 to 120 days in advance, based on new inquiries. It's capital-intensive: A block of \$5,000 to \$8,000 has to be assigned for each
 buyers' market when it comes to finding staff; many are pressed to find and hire good employees and have turned to headhunters or have recruited from other regions.
 station for almost every new position. It's capital-intensive: A block of \$5,000 to \$8,000 has to be assigned for each
 recruiting is imperfect, but helps minimize hiring in a crisis.



Firms facing a recent surge in growth are rethinking hiring strategies and managing the demands of clients smitten by computers.

Technology and Practice

- Practice** **Managing Firm Growth**

The boom-to-bust cycle of the past decade prompts architects to favor modulated growth rather than wildfire expansion.
- Preservation Technology** **Greening McKim, Mead & White**

Gastinger Walker Harden renovates a McKim, Mead & White office tower in Kansas City with eco-friendly infrastructure, showing the compatibility of historic preservation and sustainable design.
- Technology** **Detailing Sealants to Last**

Silicone sealants applied in the 1960s are aging gracefully, thanks to the material's seismic and structural benefits. When detailed correctly, these sealants ensure strength and longevity.
- Computers** **Meeting Client Expectations**

Clients are easily seduced by gee-whiz computer capabilities. For architects, the challenge is managing project costs and avoiding computer overkill.

Practice **Managing Firm Growth**

Sustainable success requires a careful investment in staff and resources, not expansion for its own sake.

Firms of growth have changed over what they were 10 years ago. Now you have to get a computer an
The economy no longer monthly or quarterly workloads 90 to 120 days in advance, based on new inquiries and sta
Many firms projecter in a buyers' market when it comes to finding staff; many are pressed to find and hire sta

By Sarah Amelar

After booming in the 1980s and busting in the early 1990s, the architectural profession is approaching the current construction upswing more cautiously. With nearly every market sector and region flourishing over the past 18 months, firms small and large are experiencing growing pains. "But this time," observes Mark Hornberger, president of San Francisco-based Hornberger + Worstell, a 35-person firm that has expanded by 50 percent since September 1995, "people seem wary of repeating the 1980s mistakes of hiring and expanding almost for its own sake."

Though many firms are now adding employees, a heftier head count is not in itself a measure of healthy growth—net revenue per employee is far more telling. And particularly in a thriving economy, growth can take sundry forms, often simultaneously. Sometimes a firm lands a huge project and swells its ranks; or the firm's market segment *may take off*. Growth can also occur

by geographic expansion; by mergers and acquisitions; or through the general windfall of a thriving economy.

When entering a growth mode, management consultants and firm principals generally agree that it's essential to have a game plan for the entire organization, with clear goals and a strategy for sustained well-being. Ideally, that big picture should include all decisions—from hiring personnel to deciding whether potential projects match the firm's direction or capabilities. A burgeoning market can "provide firms with opportunities to choose, to say 'no' to projects," maintains New York-based marketing consultant Nancy Egan. But some firms still make the mistake of taking work that doesn't fit. "Successful growth requires focusing," Egan continues, "and defining which projects to go after."

Another key piece of the successful-growth puzzle is the process by which a firm carries out each project—making sure it profitably delivers a quality product in a reasonable period of time. "If you're growing and your process is poor," Boston-based management consultant Paul Nakazawa emphasizes, "you will not be able to maintain your profit or

quality. You wouldn't do a hospital with the same standards of people and methodology that you'd use for an office building. Each client and project type demands its own kind of process."

Right mix of people

The most volatile and valuable element in the growth equation is the people—the firm's lifeblood. "Adding staff is not just a matter of putting more bodies at desks," observes Scott Simpson, a principal of Stubbins Associates in Cambridge, Massachusetts. "If you're running a firm, you should think of yourself as the dean of admissions at a college, who asks: 'How can we compose a class, a student body, for ultimate effectiveness? How can we engage talent to create the kind of architecture we envision?'"

No longer in a buyers' market, many firms are trying harder to attract and retain good employees—and have turned to headhunters or have recruited from other regions. With the architectural labor pool depleted by the last recession (when many architects shifted careers), the current growth has increased employment across the profession, leaving unfulfilled demand for talent. "We're just not finding the people we need' has become a typical call from

...turned to headhunters or have recruited from other regions.
...contract. Forecasting is imperfect, but helps minimize hiring in a crisis.
...every new person. It's capital-intensive: A block of \$5,000 to \$8,000 has to be assigned for each new hire.

my clients," reports Hugh Hochberg, partner of The Coxe Group, a Seattle-based management consulting firm.

Freelancers or independent contractors have stepped in with greater frequency to meet the demand. "The advantages of flexible staffing have become more accepted and better understood," says David McFadden, president and CEO of Consulting for Architects, a placement firm for design freelancers. "Even Fortune 500 companies are downsizing and making partial flex-staffing an intelligent management strategy." Freelancers—once viewed as second-class citizens—often bring specialized skills to firms rather than just extra pairs of hands. Though critics of flex-staffing complain that nonpermanent employees are often outsiders to a firm's culture, the upside of freelancers is added flexibility, allowing a practice to cut its overhead during down time, particularly when growth is uneven. Both freelancer and employer also get a chance to check the fit before making a job permanent.

A "good fit" and the "right mix" are terms that crop up a lot these days in discussions about personnel management in growing firms. "The relationships between people, the way they're integrated into the firm, is key," maintains Rob Widmeyer, a partner of Loschky Marquardt & Nesholm, a Seattle firm that doubled its size to 105 employees over the past two years. "From the outset, we try to make sure that everyone shares an attitude—values and aspirations—about what kind of work they want to do and how they go

about doing it." But if firms do not prepare for growth, they can end up "crisis hiring" and casting aside all such good intentions.

"Prepare for the unexpected—as well as the forecasted," advises management consultant Philip Valence, a partner of Wellesley Hills, Massachusetts-based Blackridge, Ltd. Valence urges his clients to continually identify, mentor, and train potential leaders. If principals become accustomed to delegating authority, they can more confidently hand off responsibility when rapid growth occurs.

Similarly, Oakland, California-based recruitment specialist Marjanne Pearson coaches her clients to review and interview potential employees regularly, whether they're hiring or not. Many firms also plot monthly or quarterly projections of their workloads 90 to 120 days ahead, based partly on new inquiries and work under contract. Forecasting is an imperfect science, but it can minimize crisis hiring and also help predict nonpersonnel needs.

Hauling in the hardware

Though people represent any firm's most expensive asset, nonlabor needs—space, technology, and other equipment—all follow closely behind. "The economics of growth have changed over what they were 10 years ago," remarks Jerry Sincoff,

CEO of St. Louis-based Hellmuth Obata & Kassabaum (HOK), which, with 22 offices, has expanded its staff by 30 percent in the past two years, to 1,700. "Now you have to get a computer station for almost every new person. It's capital-intensive: A block of \$5,000 to \$8,000 has to be assigned just for this purpose."

Especially for smaller firms, this initial investment in computer technology may require finessing cash-flow management. Hornberger + Worstell, for example, has sometimes borrowed from a new-project retainer to cover this initial cost (and then, usually after 90 days, credited it back). A potential \$17,500 tax deduction tends to make purchasing computers more attractive to small firms than leasing. Unless a firm invests knowingly in the short term—for one big project, rather than sustained growth—leasing tends to be more costly than buying.

Along with computers comes a new personnel need: the information-systems or computer-aided design manager. Though not present in every firm, this full-time troubleshooter usually oversees four to 50 stations—working on glitches and software installations and helping allocate equipment.

To avoid overextended space commitments, many firms set up leases with short-term renewal options that can be exercised or not, depending on workload. "If possible," notes *Wilson Pollock*, president of ADD Inc. in Cambridge, Massachusetts, an 85-person firm projecting 35 percent growth this year, "we

always try to leave enough room, a little extra, so that physical space doesn't affect our decisions to take on work."

Symptoms of distress

Even with careful planning, growth ailments can develop, and firm principals need to watch for symptoms. Checking crucial numbers, with attention to extended patterns, can reveal warning signs—for example, low revenues per staff member can indicate deteriorating profits. Rules of thumb for optimal revenues per staff member vary. For Paul Nakazawa, a minimum net revenue of \$100,000 per technical employee is a "magic number." "While some firms try to do it for less," he contends, "the really healthy practices are way above that." (Other consultants, such as Mark Zweig of Zweig White & Associates in Natick, Massachusetts, place more significance on the net revenue per employee—including nontechnical staff—which averages between \$70,000 and \$80,000 nationally.) Utilization ratios (billable hours or wages divided by the total hours or wages paid, excluding vacations and holidays) provide other clues to difficulties. If these ratios for nonprincipals "fall below 65 percent, and you're still busy," remarks Simpson, "then there's an imbalance in the system, a mismatch between staff and job." *But, cautions Zweig, utiliza-*

tion ratios alone are not necessarily absolute indicators: A low utilization ratio can be countered by a high effective multiplier (which determines the markup to the client on billable hours).

Another red flag, as Simpson points out, is chronic overtime, individually or firmwide, which may reflect inefficient employees or work processes—or an inordinate load for the available staff. "If a firm is feeling excessively pressured to meet client deadlines and has inadequate capability to deliver," notes Hochberg, "it could be a sign of the wrong mix of people, or not enough people, or both."

Other warning signs of mismanaged growth include extensive redlining late in the process, impaired staff social interactions, and low-level employees consistently going to the top for answers (rather than working things out or drawing on intellectual resources at other levels). Full-blown growth maladies can result in client dissatisfaction, defections by the firm's ablest employees, and poor profitability.

Track personnel, projects

To remedy shortcomings in performance, routine individual reviews can let employees know whether they're meeting expectations. Many firms have also taken steps to reinforce shared goals and make staff members—new and old—more comfortable in their corporate cultures. HOK, for example, with 22 separate offices, puts out a bi-monthly newsletter to help people feel more informed and connected. Firm-sponsored social or sports events can also boost group morale.

GROWTH CHECKLIST

- 1 Plan for workloads 90 to 120 days ahead.
- 2 Hire carefully for the right mix of people and shared goals.
- 3 Make sure administrative staff is adequate to support technical personnel.
- 4 Weigh the benefits of buying equipment over leasing.
- 5 Look for flexible leases with short-term options.
- 6 Monitor revenues per staff member.
- 7 Track utilization ratios in view of effective multipliers.
- 8 Prepare to invest in nonbillable hours to improve systems and procedures.
- 9 Watch for unusual overtime occurring over extended periods.
- 10 Outline firmwide quality-control procedures.
- 11 Don't let marketing lapse because the firm is busy.
- 12 Adjust business development goals for the firm as it grows.

Especially during rapid growth, a quality-control system should be firmly in place. The best systems track projects from beginning to end, spotting problems early before corrections become costly and overwhelming. Some firms use outside checkers; others have in-house peer review or a senior quality-control panel to regularly review documents.

Many firms also produce manuals outlining "best practices" and procedures. "From the outset," advises HOK's Sincoff, "a whole program of quality control must give attention to proper sequencing and a good client relationship, making sure the project team understands the schedule, budget, and what has to be done."

In an unusual arrangement at Altoon and Porter in Los Angeles, the contractor becomes part of the project team almost from the start. Selected early in each project by the

owner, the contractors attend weekly meetings at the firm, acting as consultants to the architects, in what Principal Ronald Altoon calls a "master builder" relationship. Contractors thus share responsibility for rooting out flaws as the documents develop.

Staying smaller by choice

In this climate of expansion, not every firm aspires to grow. For many small practices, where principal involvement with every project is prized, growth can bring undesired trade-offs. Some firms, such as Cesar Pelli & Associates in New Haven, Connecticut, view their current size as optimal.

"We have very carefully sized the firm and the number of projects we take," explains Principal Fred Clarke. "Cesar can be involved with every project, every detail. It's a way of assuring quality." Six to eight projects is the maximum number in the office at one time. Though Cesar Pelli & Associates maintains a staff of 71—including 60 permanent technical employees and seven in flex-time—the practice is orchestrated to operate with the hands-on leadership of one man's atelier.

As Clarke describes it, the firm's success results from remarkable staff longevity (a third of its current design staff has remained at the firm over a decade), attention to consistent quality in both process and product, and enduring relationships with clients. "I think architects should work harder on being stable than on simply growing," asserts Clarke. "You actually have to work to remain constant, but so many people are bent on becoming the next conglomerate."

Growth, of course, is not without its virtue. But for any firm's well-being, it is critical that its principals strategize and—most importantly—recognize when to stop growing.

Sarah Amelar is an architect and writer based in New York City.

STRATEGIES FOR MANAGING RAPID GROWTH

Fast-growing firms should consider the following tactics for managing people and projects when time and resources are stretched thin:

1 Buy a firm

Pros: Staff is increased to perform the new workload.

Cons: Time/investment required to seal the deal, assimilation issues with respect to the principals and staff of the acquired firm, "cultural" differences. These can require long-term investments of time and energy.

2 Borrow a firm—many smaller one- to five-person practices experience a slow period between completion of one project and the start of the next. These firms can be tapped to temporarily support the design development or construction documentation phase of a project. Such arrangements can be informal or formal, but are generally established for a specific period of time or project.

Pros: An immediate working team is created.

Cons: This group may be less agile at adapting to standards and processes of the host firm; there's potential for creating a future competing firm.

3 Borrow employees—a common practice in collegial architectural communities. Firms experiencing a slowdown, but wanting to retain key staff, will "loan" employees to other firms to survive their cycles.

Pros: Immediate influx of skilled staff; temporary change can energize both the loaned staff members and the host firm.

Cons: Administrative details related to compensation and benefits; lending firm is vulnerable to losing staff (appropriate agreements should be in place).

4 Bring back a retired principal—yours or someone else's—as a consultant.

Pros: This experienced staff member can be an immediate leader on a project team—efficient, enthusiastic, and usually very willing to work short term.

Cons: Requires clear definition of temporary role, authority, responsibilities, and limitations within the firm.

5 Bring in contract employees from architectural placement agencies, a common practice, first choice of many firms.

Pros: A simple, fast, straightforward arrangement that reduces administrative details.

Cons: Experience and skills of people unknown, as are appropriateness to the work at hand and their fit within the organization.

6 Identify a pool of prequalified individuals or firms that can provide specific services and hire them as outside contractors.

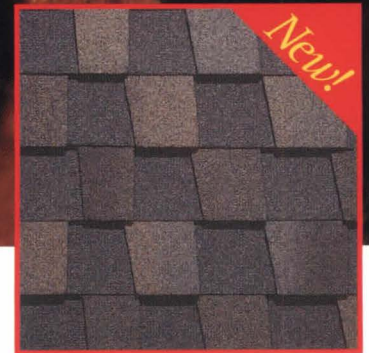
Pros: Immediate resources, known entity (prequalified).

Cons: Reduced control, potential quality issues, scheduling.

Source: Blackridge Ltd., Wellesley Hills, Massachusetts

INTRODUCING THE NEW
STANDARD BY WHICH ALL OTHER
SHINGLES WILL BE MEASURED.

AMBASSADOR
SHAKE™



The **NEW Ambassador Shake™ FRS® Shingle** is patented* as the world's first and only Tri-Laminate™ shingle with a dramatic 3-Dimensional appearance that gives your roof tremendous depth.

The visual beauty of our **NEW** custom coloration technique, **ColorScapes™**** is protected by the 3M™ Algae Block™ Copper Roofing Granule System. And Ambassador Shake has earned the prestigious Good Housekeeping Seal. Ambassador Shake is the roof you've been waiting for...that's guaranteed to last a lifetime.†

1-800-CELOTEX



AMERICA'S SHINGLE 

*U.S. Patent Nos.: 4,729,814;
4,775,440. **Patent Pending.
†See warranty for details.



3M Algae Block™
Copper Roofing Granule System

Circle 146 on information card

Wire Management Systems



Perimeter Overhead Infloor **Open Space** Support Services

Tele Power Poles ⌘T

RCI Poke-Thrus ▶

Walker Floor Boxes ⌘B

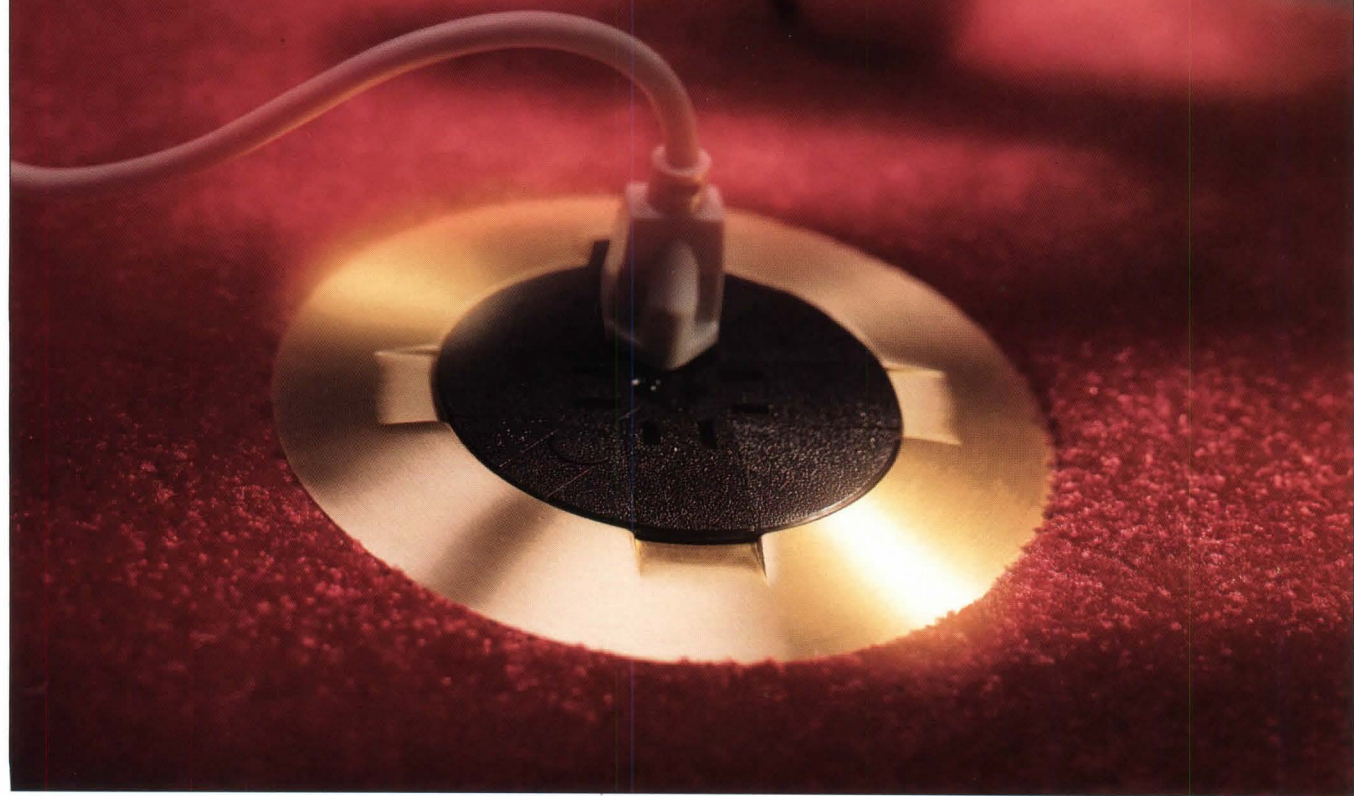
Raised Floor Boxes ⌘X

Power

Communications

Furniture Feed

How To Have It All
And Keep A Low Profile.



You want four power outlets? Plus dual openings for telephone and data? In an aesthetically pleasing, low-profile poke-thru that simplifies power and low voltage wiring in open-space floor plans? Now you can have it all with the RCI RC 900 Quad flush poke-thru from Walker Systems.

Don't let the pretty looks fool you. The RC 900 Quad is constructed of thermoset resin with sturdy polycarbonate slide covers. It comes pre-wired for quick installation in open spaces. And it provides through-the-floor wire management while maintaining the integrity of the floor; its fire-rated design

is UL classified and listed for two hours.

The RC 900 Quad is just one of many Wiremold® wire management solutions. Call 1-800-621-0049. Or <http://www.wiremold.com>.

Wiremold... The only way to wire.



Circle 148 on information card

Greening McKim, Mead & White

A restored 19th-century Kansas City office block benefits from energy-conserving strategies and ecologically friendly materials.

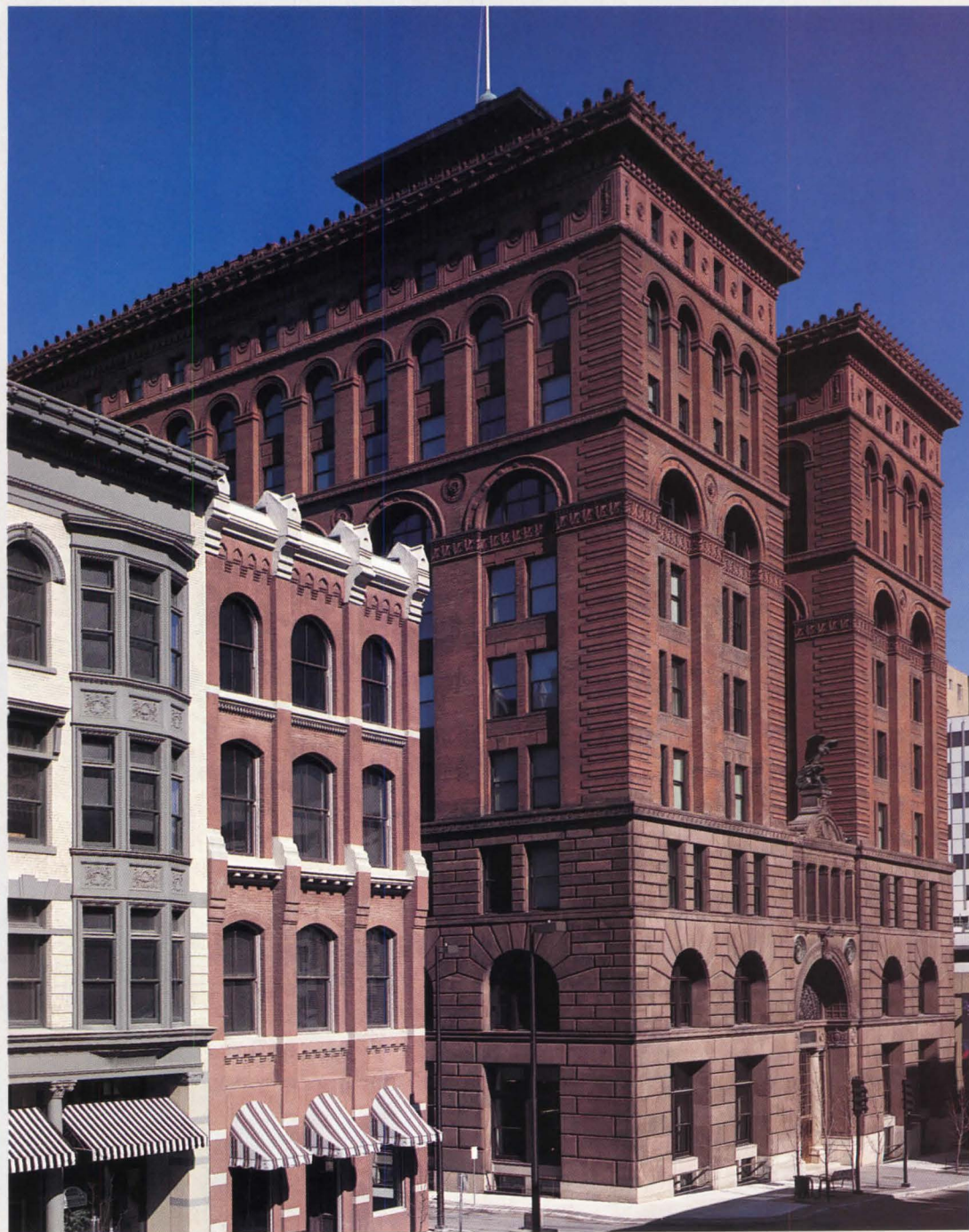
By Raul A. Barreneche

"Preservation and environmentally sensitive design complement each other very well," maintains Kirk Gastinger, principal of Gastinger Walker Harden Architects in Kansas City. The firm's recent \$30 million renovation of a McKim, Mead & White-designed office building in downtown Kansas City, Missouri, proves Gastinger's point. While upgrading the 1888 landmark, the architect added the latest energy-conserving systems and environmentally friendly materials to create a new headquarters for a local utility company, UtiliCorp United. The company wisely decided to move into the derelict former headquarters of the New York Life Insurance Company to meet its needs for increased office space instead of looking to a generic downtown high-rise or a suburban office park. UtiliCorp hired local developer Zimmer Companies and Gastinger Walker Harden to transform the building into a working demonstration of its commitment to energy conservation.

Local landmark

The 1888 Neo-Romanesque masonry structure is one of two Midwestern regional office buildings designed by McKim, Mead & White for New York Life Insurance in the 1880s. (The other is located in Omaha.) The Kansas City building is not the turn-of-the-century architect's most famous, nor its best. But it is a popular local landmark and the source of several architectural firsts for Kansas City: the city's first steel-framed structure, its first skyscraper, and its first building with elevators.

The insurance company building was occupied continuously for nearly a century, until 1986, when a local developer began converting the building into corporate apartments.



Gastinger Walker Harden Architects repaired cornice, cleaned exterior with soap-and-water-based solution, and repointed brick.

Bronze eagle atop entrance was sculpted by Louis Saint-Gaudens, brother of sculptor Augustus Saint-Gaudens. New joint sealants between terra-cotta panels (section) preserve existing ornamental parapet.

In 1988, midway through the renovation, the project went bust, and the partially refurbished building remained vacant for more than six years. By the time Gastinger began the latest rehab, the structure was in miserable shape.

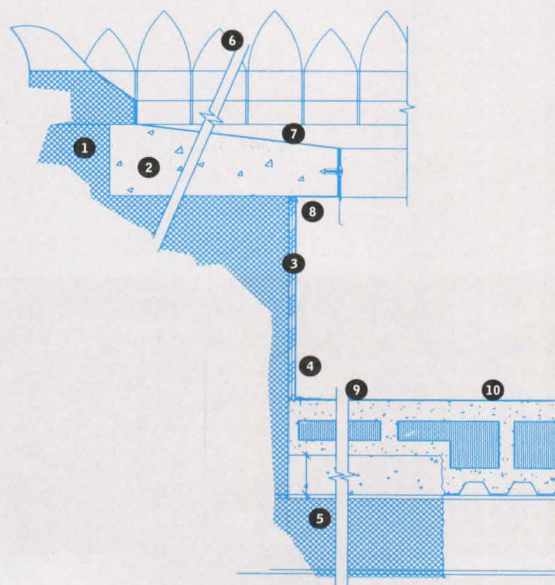
The massive, 200,000-square-foot masonry building is H-shaped in plan: A pair of 10-story wings frame a central 13-story tower crowned by a clay-tiled roof. At the north end of the building, Gastinger inserted a steel-framed addition connecting the pair of 10-story wings to create a new interior courtyard. This addition provides much-needed lateral stiffening to the overall structure, given Kansas City's proximity to the New Madrid fault in southeastern Missouri. New steel plates in the existing masonry walls anchor the steel frame of the new wing to the original building; steel X-braces in the new addition provide added seismic stability.

Exterior preservation

The 1888 building's exterior was in fairly good condition, but still required some significant repairs. Gastinger Walker Harden's goal was to stabilize the exterior with minimal consumption of energy and resources. "You don't have to replace every stone," Gastinger contends, "because reducing consumption is the first rule of environmentalism. Even with blemishes, the existing materials still have a long life."

The architect elected to wash the brownstone, brick, and terra-cotta exteriors with a mild soap-and-water-based restoration cleaner, manufactured by Prosoco. On the tower's ornate eaves, damaged terra-cotta units and missing tiles were replaced and the rusted iron brackets, cleaned. Gastinger also installed new copper gutters and supporting metal brackets along the

- 1 existing terra-cotta
- 2 existing concrete parapet cap
- 3 existing masonry parapet
- 4 5/8" exterior grade plywood anchored to existing parapet
- 5 existing tile roof deck
- 6 existing terra-cotta beyond
- 7 new modified bitumen roof
- 8 termination bar
- 9 roofing fastener and plates
- 10 new roof membrane on new lightweight concrete insulating roof deck



Cornice parapet detail

Architect refinished cast-iron frame of vaulted lobby skylight and salvaged original glass (right and far right). New skylight spanning east and west wings of building (bottom right) creates interior light well above vaulted skylight. Additional skylight above third floor (detail) provides daylight to office interiors.

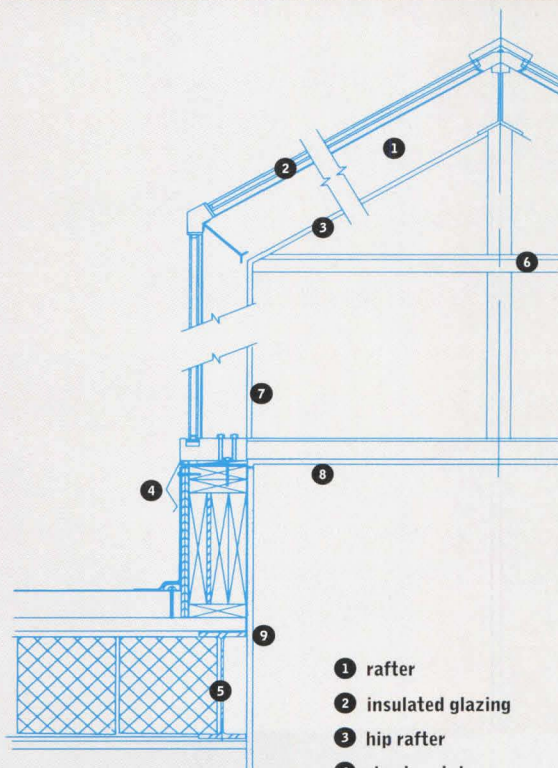
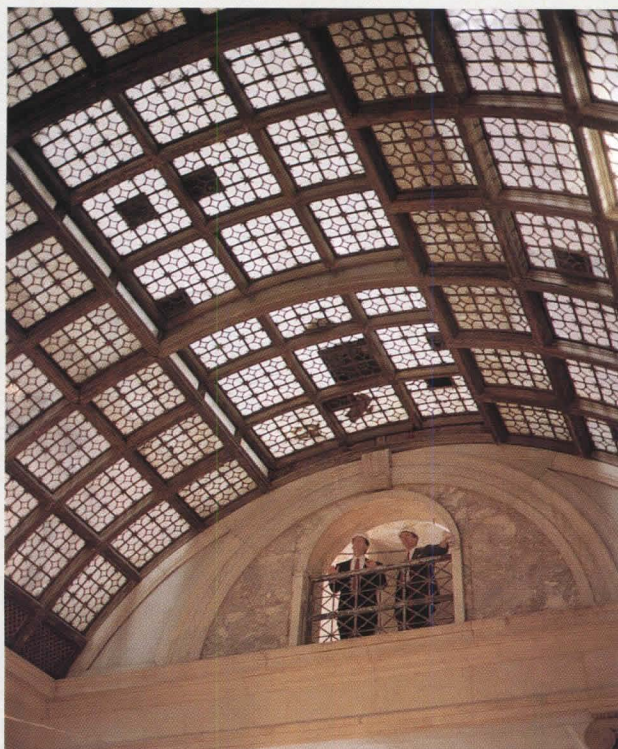
edge of the parapet. All of the roof's clay tiles were substituted with new units crafted by the original manufacturer, Akron Tile of Ohio. The tower's brick cladding was cleaned and repaired, and damaged joints were repointed.

On the two side wings of the building, workers repaired minor cracks in the brownstone with a standard patching mortar. They cleaned the ornate terra-cotta panels along the parapet; replaced missing panels with new units crafted from micro-cotta, a terra-cotta substitute; patched spalled panels with epoxy; and repointed deteriorated joints. New flashing and coal tar roofing were installed on both wings. All the building's windows were removed and fitted with energy-efficient, low-E insulated glazing.

Interior refurbishing

The existing building was structurally sound, but the interior finishes were shabby: Paint was peeling off the walls, plaster coatings were crumbling, and debris cluttered the old office floors. Gastinger patched and repainted interior plaster walls, repaired damaged wood moldings and doors, and refinished the marble and terrazzo floors. Where sections of the marble flooring were missing or irreparable, they were replaced with stone from the same Italian quarry that provided the original marble, identified in letters uncovered in the McKim, Mead & White archives at the New York Historical Society.

Gastinger's team salvaged the existing vaulted skylight above the central ground-floor lobby, refinished the cast-iron frame, and reused the original glass panels. The architect concealed new ducts in an old gutter running along the exterior of the vaulted skylight; the ducts supply air to the lobby through ornate metal



Skylight detail

- 1 rafter
- 2 insulated glazing
- 3 hip rafter
- 4 sheet metal membrane flashing
- 5 existing iron and terra-cotta structure
- 6 knee beyond
- 7 corner leg beyond
- 8 sheet metal gutter
- 9 interior wall finish





Refurbished skylight admits diffused daylight into central lobby. Existing gutters along edge of vault conceal new air ducts.

grilles that extend along each side of the skylight.

Gastinger tried to clearly distinguish new fixtures from the originals. "We tried to give them a contemporary look, so you know they are new," he explains. A few exceptions to this strategy are the six wall sconces in the lobby and a pair of bronze torchieres flanking the entry, which were exactly replicated by studying historic photographs.

Because the original structure was designed as an office building, architectural gymnastics weren't necessary to meet UtiliCorp's space needs; the existing structural grid and floor layouts were sympathetic to modern office requirements. Gastinger added a few improvements, such as a service elevator and exit stair in the west wing. The new 10-story addition at the north end of the building improved interior circulation by linking the two wings with additional offices.

Green upgrades

The building's existing massing and organization made it an ideal candidate for an energy-efficient upgrade: Its thick masonry walls create a substantial thermal mass; the alignment of its windows across shallow floor plates allows natural cross ventilation; and its abundant daylight through perimeter windows minimizes reliance on artificial light. The narrow floor width also increases daylight inside the building. As Gastinger points out, "You're never more than 20 feet from a window." The architect supplemented these inherent environmental benefits with several new energy-reducing lighting and ventilation strategies.

Light shelves and curved ceiling soffits along the perimeter reflect daylight onto workstations below. The soffits, along with reflective,

light-colored wall finishes, help day-light penetrate the building's core. Sensors automatically dim or brighten interior lights according to day-light levels in the room; occupancy sensors turn off lights in empty areas of the building to cut down on excess power consumption.

The building's state-of-the-art HVAC system combines natural gas-powered boilers and an ice-based electric cooling system. "We selected the system with the most efficiency and least pollution," explains Gastinger. At night, when electricity rates drop, ice forms in a series of 15-foot-tall, stainless steel tanks in the basement. The ice is stored overnight and chills the coils that cool inside air the next day. Energy management controls link this cooling system with the boilers, to ensure the most efficient HVAC performance. Operable windows, a luxury in most modern high-rises, provide a healthy influx of outside air to the building.

Sensitive materials

Throughout the interior, Gastinger selected new materials for their sustainability and ecological sensitivity. Paints and recyclable carpets, for example, are free of volatile organic compounds (VOCs). He specified Herman Miller's environmentally friendly Ethospace office furniture, and many of the fabrics and wall finishes in the offices are part of a line designed by ecoarchitect William McDonough for Design Tex.

The resulting juxtaposition of new materials and old is a comfortable fit: Carefully restored cast-iron fireplaces and hand-laid mosaic floors exist side-by-side with high-tech sensors and energy-efficient lights. Gastinger Walker Harden's restoration proves that preserving existing structures is one of the most sustainable ways of building.

Photographs of second-floor lobby before (left) and after (right) show transformation of interiors. Plaster walls were patched and repainted.

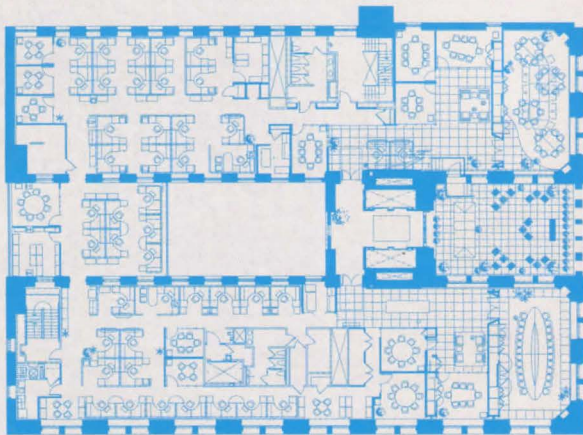


Crumbling plaster of columns and walls (above) was restored; space was converted into multi-purpose room (above right). Energy-efficient lighting is mounted above ceiling soffits.

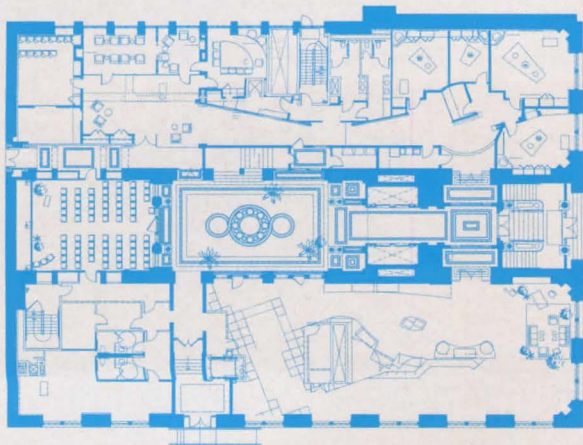
NEW YORK LIFE BUILDING RESTORATION, KANSAS CITY, MISSOURI
CLIENTS: UtiliCorp United, The Zimmer Companies **ARCHITECT:** Gastinger Walker Harden Architects, Kansas City, Missouri—William Kevin Harden (principal-in-charge), Kirk A. Gastinger (design principal), Gregory S. Sheldon (project manager), Brian R. Ball (project designer), Lisa R. Jensen (interior designer) **LANDSCAPE ARCHITECT:** Patti Banks Associates **ENGINEERS:** Charles Page & Associates (structural), Smith & Boucher (mechanical, electrical), SK Design Group (civil) **CONSULTANTS:** Raphael Architects (restoration), Coffeen Fricke Associates (acoustics), Monigle Associates (signage) **GENERAL CONTRACTOR:** J.E. Dunn Construction **COST:** \$35 million **PHOTOGRAPHER:** Mike Sinclair



Typical perimeter workspaces (left) incorporate operable windows and curved ceiling soffits that reflect daylight and artificial light onto desks. William McDonough-designed curtains and wallcoverings create environmentally friendly finishes for second-floor board room (below).



Third-floor plan



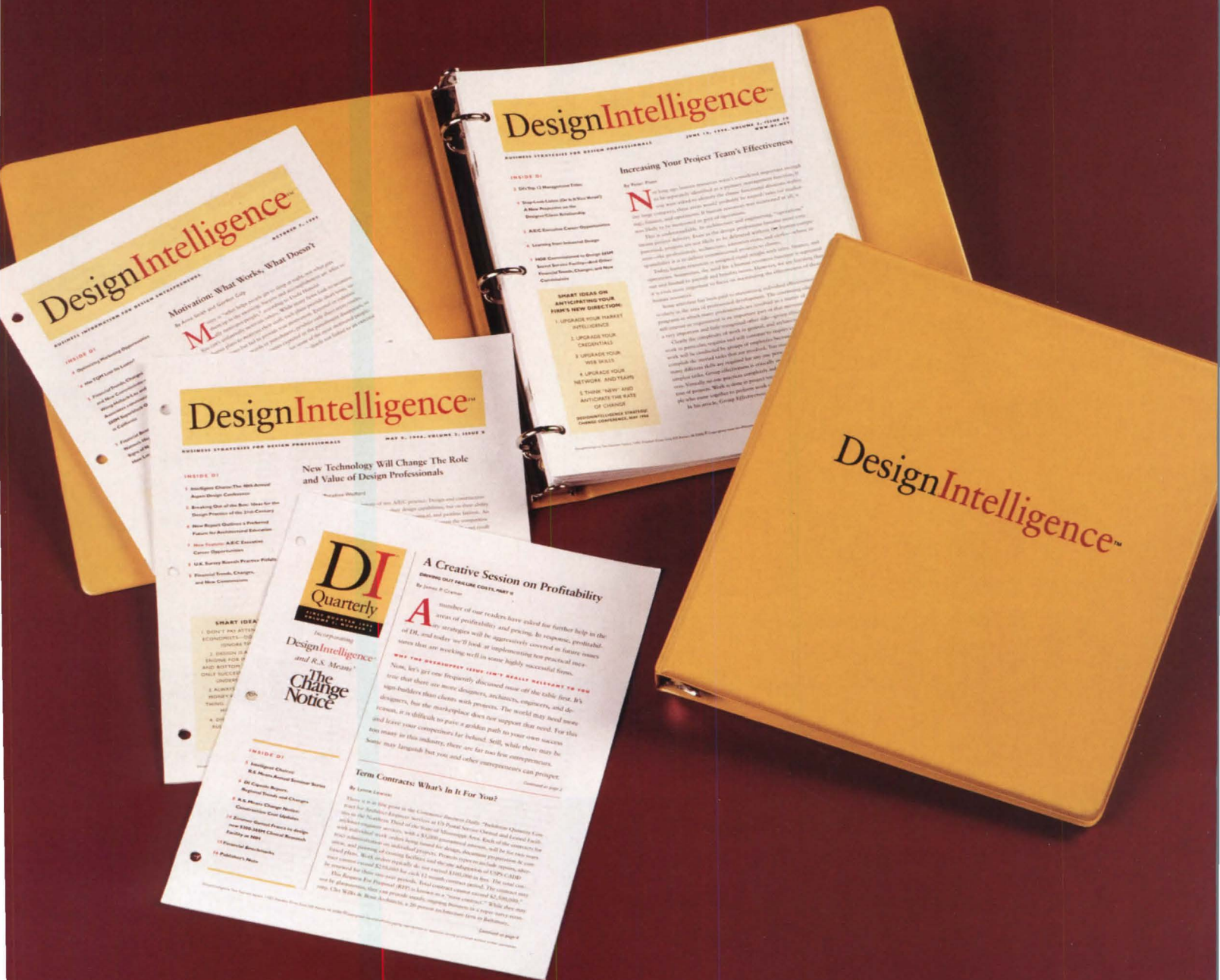
First-floor plan



Small meeting room (above) demonstrates abundance of daylight, even in interior spaces at center of floor plate. Plans (left) reveal new addition at north end and organization of office building around light-filled central courtyard.

DesignIntelligence™

Advanced Strategies for Design Professionals



DesignIntelligence™

BUSINESS STRATEGIES FOR DESIGN PROFESSIONALS

JUNE 15, 2004, VOLUME 2, ISSUE 10

Increasing Your Project Team's Effectiveness

By Peter Stone

Nothing has become more critical to a project manager's success in the past few years than the ability to assemble and manage an effective project team. This is particularly true in the design industry, where the success of a project often hinges on the ability of the project team to work together effectively. In this article, we will explore some strategies for increasing your project team's effectiveness.

SMART IDEAS ON ANTICIPATING YOUR FIRM'S NEW DIRECTION

1. UPGRADE YOUR MARKET INTELLIGENCE
2. UPGRADE YOUR CREDENTIALS
3. UPGRADE YOUR WEB WEBS
4. UPGRADE YOUR NETWORK AND TAPPS
5. THINK "NAVY" AND ANTICIPATE THE PACE OF CHANGE

DESIGNINTELLIGENCE STRATEGIES CHANGE EVERYTHING. MAY 1994

DesignIntelligence™

BUSINESS STRATEGIES FOR DESIGN PROFESSIONALS

Motivation: What Works, What Doesn't?

By Anne Smith and Gordon Cox

Motivation is a complex phenomenon that has long fascinated psychologists and business leaders alike. While there is no single formula for motivating a team, there are several key factors that can help you to create a more motivated and productive workforce.

DesignIntelligence™

BUSINESS STRATEGIES FOR DESIGN PROFESSIONALS

New Technology Will Change the Role and Value of Design Professionals

As technology continues to advance, the role of design professionals is being challenged. While some fear that automation will replace human creativity, others see it as an opportunity to enhance their work. In this article, we will explore how new technology is changing the industry and what you can do to stay ahead.

DI Quarterly

A Creative Session on Profitability

By James P. Clapper

A number of our readers have asked for further help in the areas of profitability and pricing. In response, profitability strategies will be aggressively covered in future issues that are working well in some highly successful firms.

Now, let's get one frequently discussed issue off the table first. It's true that there are more designers, architects, engineers, and decorators in the marketplace than ever before. The world they need more and leave your competitors far behind. Still, while there may be too many in this industry, there are far too few entrepreneurs. Some may laugh but you and other entrepreneurs can prosper.

Term Contracts: What's In It For You?

By Lynn Swartz

There is a lot of talk these days about the "Contract Revolution" that is sweeping the industry. While some see it as a threat to their business, others see it as an opportunity. In this article, we will explore the benefits of term contracts and how you can use them to your advantage.

DesignIntelligence™ and R.S. Means' The Change Notice

- INSIDE BY:
1. Intelligent Choice: R.S. Means' New Building System
 2. 20 Years of Progress: A Retrospective on the Industry
 3. R.S. Means' Change Notice: A Retrospective on the Industry
 4. Smart Ideas: A Retrospective on the Industry
 5. Financial Forecasts: A Retrospective on the Industry
 6. Publisher's Note

What if twice a month you could spend an intensive, strategic planning session with some of today's leading management consultants, practitioners, and analysts?

You can with DesignIntelligence!

Learn how to make your job easier, less time consuming, more productive, and more rewarding. We'll give you the information you need to leverage yourself and your firm into a more successful and profitable position. In addition, you'll have direct access to Design Futures Council research initiatives, including expert panels, research results, and educational conferences—which add up to an unobstructed view of future opportunities and possibilities for you and your firm.

Inside each issue you'll find the latest information from the experts on economic, design, and construction trends, as well as financial management strategies, compensation trends, new project announcements, career announcements, best practice case studies, fees, profitability, ownership transition, up-to-date construction and materials trend data, and the latest in communications planning, strategic change, and how to achieve competitive fitness. It's all about what's impacting you right now. So don't sit around wondering, "How can we leverage our information tech-

nology to save time and money? Does my compensation compare with industry benchmarks? How do we go global? Is our tax strategy optimal? How much should we invest in professional development and training this year?" You could be getting answers to questions like these and more in each issue of DI.

As you'll see, DI doesn't recycle the same old ideas. Instead we offer new information, fresh perspectives, and innovative concepts. DI is an essential management resource designed to keep you ahead of the curve. So don't be left behind or caught off guard. You could be intercepting the future with each issue of DI.

Take a Closer Look at DesignIntelligence!

Visit our web site at www.di.net. Start your subscription today, and receive 24 issues (a full year of DI) for just \$199 (@299 International). You'll soon be asking yourself what you ever did without it. Call us at 800/726-8603, or fill out one of the enclosed subscription cards, and renew your commitment to building your firm's success. **Order today and receive \$50 off your registration for the DI Conference of your choice.**

DesignIntelligence, the DI Quarterly, DI Online, and DI Conferences are supported in part by:



DI

Conferences

New for 1997!

Continuing Education for Design Professionals

Designers worldwide consider DI an essential management resource, and now you can spend an interactive, highly-charged, full-day session with the authors and consultants whose perspectives are the driving force behind every issue *DI*. Don't miss these leading edge programs . . .

Negotiating Breakthroughs

For your design practice, better negotiation skills mean getting more of what you want, less of what you don't. The right scope of work. Higher fees. Fewer misunderstandings. In this one-day workshop, you'll learn to negotiate with the very best, using the strategies and tactics of top negotiators. This session will visit a city near you on:

Scottsdale, AZ	April 10
Boston, MA	June 6
Minneapolis, MN	June 13

Glass & Architecture in the New Millennium

Convening in Atlanta on May 14, this symposium hosted by *DI*, the National Glass Association, *Architecture*, and Harmon Glass is focused on the role of glass in the buildings of the future. Participants will take part in sessions with Gene Kohn, Kohn Pedersen Fox; James Carpenter, James Carpenter Design Associates, and other design leaders shaping tomorrow's urban landscape.

Call 800/726-8603 to register today! Ask about DI's in-house training programs!



Silicone sealants boost the seismic and structural performance of glazing and curtain-wall systems.

By C.C. Sullivan

Several decades of testing confirm that silicone sealants, both in structural and nonstructural glazing, provide excellent long-term performance with little degradation. Recent applications also suggest that silicone performs well in seismic- and hurricane-rated designs because it accommodates extreme movement and provides strong adhesion.

While such sealants as butyls, polysulfides, acrylics, and polyurethanes offer adequate joint protection, silicones stand out in strength and longevity. "The first projects using silicones were completed in the early 1960s," explains engineer and curtain-wall consultant Gordon H. Smith. "We now see that properly primed, formulated silicone sealants appear to have an unlimited life span, remaining resilient with tenacity as far as bond is concerned."

In any application, well-detailed joints are important for maximizing sealant strength and longevity. Architects should consider joint width in relation to sealant selection, sealant shape, adhesion testing, and substrate properties. Proper installation regimens, including surface preparation and priming, are vital for minimum performance.

According to application guidelines published by Dow Corning, nonstructural silicone sealants should be installed with a width-depth ratio of at least 2:1 in hourglass shapes for maximum movement. A minimum of 1/4 inch access space is needed for application, and 1/4 inch of sealant for adequate adhesion. A backer rod or bond breaker tape should be applied behind the sealant to prevent three-sided adhesion, which limits movement. For moving joints, sealant thickness should not exceed 3/8 inch.

Choosing silicone sealants

Product selection for silicones is based on materials compatibility, labo-

ratory testing, design requirements, and manufacturer recommendations. Many architects specify a generic silicone in the design phase, based on overall project requirements. This was true of the curtain-wall design for the federal courthouse in Minneapolis by Kohn Pedersen Fox Associates (KPF), which combined precast concrete panels and ribs with unitized glass panels. The architects selected silicone for a long-lasting seal on joints for a variety of material combinations.

"Our outline specification called for silicone as an air and water sealant in the open joint," Job Captain Roger Cooner explains. "Horizontal expansion joints between unitized panels would allow the most movement, and that's where you look for the sealant to do its job. We used two types of sealant, one on metal-to-metal connections and another for metal-to-precast and precast-to-precast joints." Sealant specifications were verified by a curtain-wall consultant, the system fabricator, and the sealant manufacturer. But like other architects, KPF was already convinced of the material's suitability.

Seismic strength

Silicone's accommodation of movement in curtain-wall joints can provide useful structural redundancy. Structural and nonstructural silicones in wet glazing applications can also meet seismic requirements for curtain walls, as they help hold the metal to the glass. A good example is the 1993 addition to the Los Angeles Convention Center, designed by Pei Cobb Freed & Partners, which incorporates striking, glazed entrance pavilions. While local fire officials recommended fully tempered glazing, concern over spontaneous breakage in monolithic glass prompted the architect to propose prefabricated, preglazed panels with silicone wet glazing, or wet seal, as a perimeter adhesive.

"This system easily accommodates seismic displacement, minimizing movement in the glass due to racking of the superstructure," explains Partner Michael D. Flynn, a member of New York City's Seismic Code Review Committee. The glass is always supported, protecting the occupants from life-threatening forces. We presented that design to the fire marshals, and they accepted it."

While silicone's adhesive strength is suitable for seismic applications, structural silicone connections are not currently rated in many codes for seismic resistance. But the joints accommodate movement well with minimum property changes.

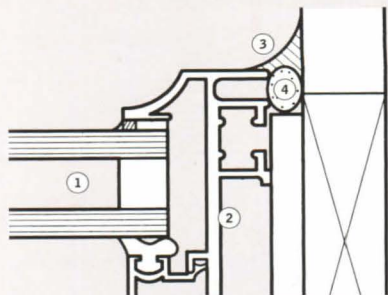
Sealants used in structural applications meet the requirements of new hurricane codes, such as those now enforced in Dade County, Florida, passed in 1994 after Hurricane Andrew. Carnival Cruise Lines World Headquarters in Miami, for example, is engineered to withstand 200 mph gusts and 160 mph sustained wind. Designed by AI-Five Architects of Philadelphia, the straightforward building envelope comprises precast panels, ribbon windows, and glass curtain wall. Although mullions are spaced at 30-inch intervals, hurricane-proof glass panels are 6 inches thick.

"For the window sealants, we had to use structural silicone," explains Conrad F. Strabone, president of AI-Five. "We also tested a number of different silicones for joints between glass and mullions or precast panels, to determine which sealant has the best adhesive properties."

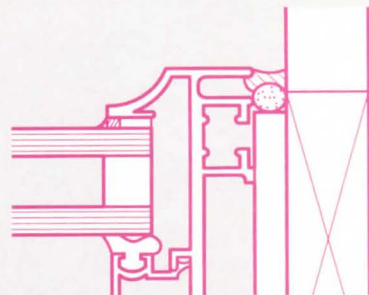
All of the exterior treatments, including doors, were subjected to wind load and impact testing to determine their ability to withstand the gusts and flying debris typically associated with a hurricane. Strabone reports that the building's envelope exceeds Dade County's code-mandated hurricane resistance by 15 to 20 percent.

A Guide to Correct Sealant Detailing

Window perimeter joint, caulking omitted



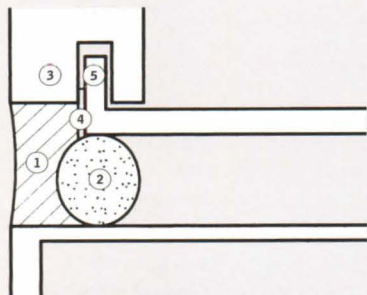
Good design



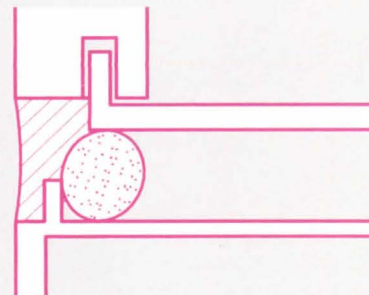
Bad design

- ① glazing
- ② metal frame
- ③ silicone sealant, minimum 1/4 inch spread
- ④ backer rod

Stone-to-metal curtain-wall joint



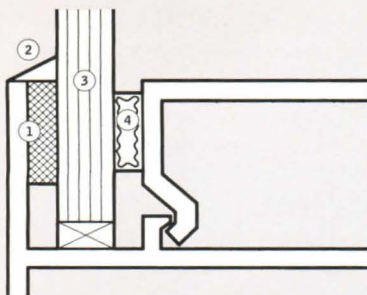
Good design



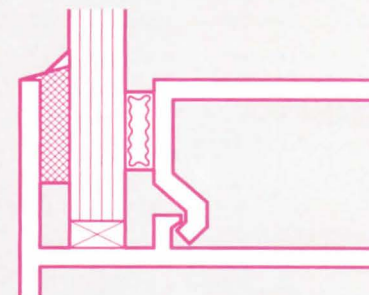
Bad design

- ① silicone sealant
- ② backer rod
- ③ curtain wall
- ④ bond breaker tape
- ⑤ kerf clip

Nonstructural glazing joint



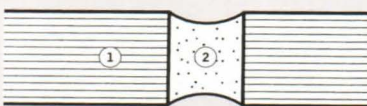
Good design



Bad design

- ① sponge basket, flush with metal frame
- ② silicone cap bead, with minimum 1/4-inch adhesive surface with glass and metal
- ③ glazing
- ④ compression gasket

Butt joint glazing



Good design



Bad design

- ① glazing, minimum 1/4 inch thick
- ② dark-colored silicone sealant, minimum 1/4 inch wide

Curtain-wall connections

Structural sealant glazing (SSG) takes advantage of silicone's strength and flexibility to provide a visually uninterrupted curtain wall. Monolithic glass is attached to mullions by beads of high-strength silicone on two or four sides for a continuous surface. The structural bead is usually placed behind the glass; a silicone weather seal typically joins abutting panes of glass.

For example, Philip Johnson, Ritchie & Fiore specified a four-sided mullionless SSG curtain wall in the recent recladding of the former Gulf and Western tower (now the Trump International Hotel and Tower) in New York. The architect created a variegated metallic surface with interreflecting facets through an angular curtain wall that provides uninterrupted park views, numerous operable windows, and a sleek profile.

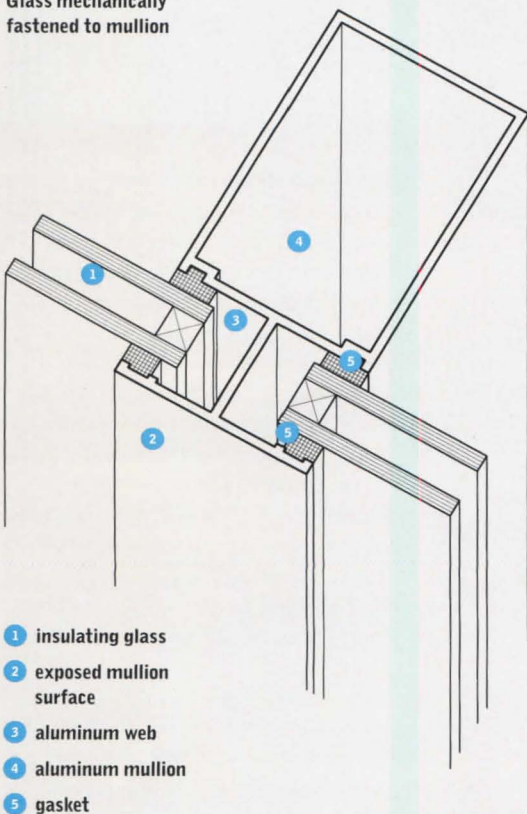
"To provide a consistency of surface and obtain a monolithic effect, care was taken with the vision line caused by the silicone behind the glass," explains Principal Alan Ritchie. By specifying a polyester opacifier (adhesive sheets applied to the glass that render it opaque without changing its color or reflectivity) and shadow box details, the architect achieved a consistently reflective surface without visible silicone beads at joints.

The use of structural silicone has become common in curtain-wall detailing, notes Emil Sher, CEO of the Miami-based manufacturer Glassalum. "Even when exposed members are specified for the exterior, the glass units are often structurally held to the frame," Sher explains. "Basically, the glass sits in the frame, attached with silicone but floating. It's a positive attachment which absorbs movement very well, including thermal expansion and contraction and even seismic loads."

"Another advantage of SSG is its thermal performance, since you don't

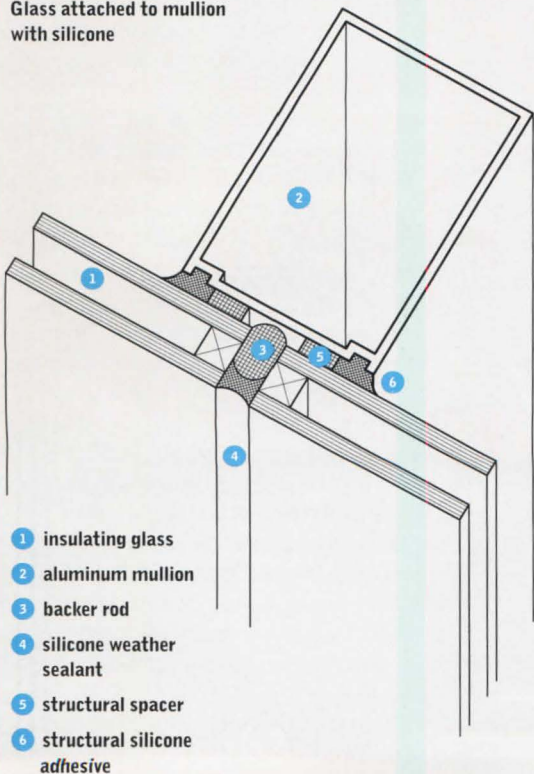
Detailing Sealants in Curtain Walls

Glass mechanically fastened to mullion



- 1 insulating glass
- 2 exposed mullion surface
- 3 aluminum web
- 4 aluminum mullion
- 5 gasket

Glass attached to mullion with silicone



- 1 insulating glass
- 2 aluminum mullion
- 3 backer rod
- 4 silicone weather sealant
- 5 structural spacer
- 6 structural silicone adhesive

have exterior aluminum members," continues Sher, explaining that thermal bridging through mullions can cause considerable heat loss through radiation, absorption, and dissipation, even when a "thermal break" is incorporated into the mullion design.

Detailing SSG

Guidelines for SSG detailing for two- and four-sided designs are available from silicone manufacturers. "We still use the original formula to calculate the structural bite of the sealant on the back side of the glass," maintains Paul S. Brahler, senior engineer at GE Silicones. Structural bite is the sealant bond width, which must exceed a certain minimum dimension to ensure adhesive performance. "It's based on trapezoidal loading of a flat plate: The sealant's width on the back side of the glass is a function of design wind load multiplied by maximum opening divided by sealant strength," explains Brahler.

For initial detailing, minimum bite can be calculated according to the following formula:

$$\text{structural bite} = \frac{1}{2} \times \text{smallest leg of largest lite, or pane of glass (ft)} \times \text{wind load (lb/ft}^2\text{)} \div \text{sealant design strength (20 lb/in}^2\text{)} \times 12 \text{ in/ft.}$$

According to Dow Corning guidelines, the bite (bond width) of the sealant bead connecting mullion and glass, and the glueline thickness (bead depth) must exceed 1/4 inch, with the former exceeding the latter. The joint must be filled using only standard caulking practices and should allow exposure to air for proper cure. Lastly, dead load design strength should be calculated at 1 lb/in².

Quality control is vital to the successful performance of SSG project development. "The manufacturer should review shop drawing details for structural glazing design as well as adhesive compatibility for all substrates, particularly elastomers," Brahler explains.

"Gaskets are in continuous contact with the sealant, so we focus on compatibility of those materials." Minimum adhesion is also verified for glass, metal, setting blocks, and spacers.

Installing SSG

During the construction phase, SSG application is typically monitored by a team representing the architect, contractor, sealant manufacturer, and curtain-wall fabricator. Key variables affecting SSG performance include the preparation of joint surfaces, joint fill, and full contact of sealant with materials. The structural joint should not move during the sealant's curing process.

The rigorous quality control measures demanded by SSG tend to dictate assembly options. "Structural silicones have been applied in both the shop and the field," says curtain-wall consultant Smith. "As much work as possible should be done in the shop, due to the ability to maintain quality and supervision," he points out. "However, being practical about it, you typically install silicone in the field." Brahler adds a distinction: "When it's a four-sided application, the installation definitely must be done in the shop; all major suppliers require this."

Silicones have an irreplaceable value in structural glazing and other joint-sealing capacities, although some architects criticize the limited color options for some silicone formulas, as well as their tendency to accumulate dirt over time. In addition, the highly technical and often complex application process requires detailed surface preparation and suitable primers in some instances. But silicones often prevail over other types of sealants because of their strong adhesion, durability, and resistance to the elements.

C.C. Sullivan is a freelance writer based in Brooklyn, New York.

it's sweeping

fluid

MALLEABLE.

Surprise. There's a side to Corian® that isn't flat and rigid. It's curved. Bendable. Thermoforms easily into twists and turns. So you can make it into a spiral staircase in a lobby, a curved top on a reception desk, or a decidedly dramatic column. Illuminate it, design with it, over 50 extraordinary colors give you endless possibilities. A worldwide network of certified fabricators even makes installation easy. It's beautiful, it's flexible, it's durable. It's Corian®. For more information, call 1-800-4-CORIAN (1-800-426-7426).



Teda International Club, China

in other words, it's

CORIAN®
SURFACES
Created For Life.™

Join us at the AIA Expo
Booth 643



Circle 150 on information card

Architects face increasingly computer-literate clients, who expect superior graphics and rapid turnaround at minimal cost.

By Jerry Laiserin

Not long ago, in a design studio not far away, an affluent couple listened to an architect—let's call him Stanley—describe his designs for their multi-million-dollar house. While Stanley showed sketches, renderings, and working drawings of the lavish project, his would-be clients grew uneasy. Finally, as yet another delicately hand-tinted elevation unfurled, the husband and wife blurted out in unison, "But when will we get our 3-D movie?"

Stanley hastily explained such computer wizardry was neither necessary nor appropriate to their project. Unpersuaded and insisting, "That's what architects do," the couple left—taking their \$300,000 fee to another architect. While the real "Stanley" requested anonymity for this story, he—like most architects today—can no longer avoid clients' growing infatuation with computer-aided design (CAD). Whether the clients are government agencies, corporations, or families, architects must meet their expectations.

Inexperienced clients extrapolate from non-CAD software, such as word processors and spreadsheets, that computer-savvy architects work faster and cheaper and handle more changes—all with less impact on cost or schedule. For experienced clients, CAD allows more options, more frequent reviews, even interactive editing of designs. Combining this "participatory clienting" with the immediacy of the Internet, some expect to review the work at home or in the office on a 24-hour, seven-day-a-week basis—treating design iterations as "customer support."

"Some people think computers can produce two or three times the work," according to Carmelo Sabatella, senior architect in the City

of Los Angeles Department of Public Works. "That may be true for word processing, but we don't expect that for CAD." What government clients do expect, says Sabatella, is efficiency, effectiveness, and timeliness. "We used to pay an additional fee for CAD deliverables, which were optional. Now we expect that service providers have some basic guidelines in place, and CAD deliverables are an included part of the service." Sabatella's department has set a target date of 2000 for a completely paperless process and is developing standards now for what will be mandatory for Internet-enabled documentation in the future.

Jon Hlafter, director of physical planning at Princeton University, adds that universities also are "moving in the direction of having all work done by CAD, with all material submitted in specific formats." Of special importance to a client like

Princeton is that "the accuracy of CAD makes it possible to investigate and fine-tune," notes Hlafter. "We can study large-scale relationships, scale, and proportion with a new level of precision."

Educating clients

These expectations are not limited to architects' traditional instruments of service, such as plans, elevations, and details on paper. Some clients assume CAD software "automatically" generates 3-D models, rendered images, animations, simulations in "virtual" modeling, and even immersive virtual reality via head-mounted displays. This perception compounds the architect's problem, because clients demand more, but may be reluctant to pay for it. The current version of AIA Form B-141, the most commonly used owner-architect agreement, is of little help, classifying electronic deliverables as "basic" or "additional" services.

How do architects respond? One answer that cuts across all firm types and client types is client education, according to William "Billy" Herrin, Jr., partner of Jones & Herrin, a 30-person Huntsville, Alabama, firm specializing in churches and health care. "Great architecture takes time," says Herrin, "and computers can't make you think faster." With his own firm fully computerized, Herrin worries that younger practitioners and inexperienced clients sacrifice quality for speed, settling too readily for the first computer-generated solution rather than pursuing further design refinements.

Extra service merits extra payment, and Partner William Ferguson of Askew Nixon Ferguson Architects finds most of his 35-person firm's corporate clients willing—if the extra-cost computer services are

CLIENT: "Each technician needs two workstations, so make these rooms bigger, OK? And where's the Level 3 training lab? It will take just a little reorganizing. And I need to see revisions tomorrow."

HIDDEN COSTS AND COMPLICATIONS OF CAD

EVEN WHEN A PROJECT IS DESIGNED ON COMPUTER, SIMPLE REVISIONS TO PLEASE THE CLIENT REQUIRE MORE THAN "MOVE" AND "ROTATE."

THURSDAY

THE PRESENTATION:

For a 20,000-square-foot interior build-out of a software developer's headquarters, ABC Architects generates a 90 percent complete partition plan, ceiling plan, and receptacle plan on ArchiCAD to distribute to mechanical and electrical engineers and the client's telecommunications vendor.

But during the presentation, the client insists that one lab increase in size 40 percent and one lab by 25 percent and requests an additional 300-square-foot lab. The architect puts engineers on standby and scrambles to revise backgrounds.

CLIENT:

"Each technician needs two workstations, so make these rooms bigger, OK? And where's the Level 3 training lab? It will take just a little reorganizing. And I need to see revisions tomorrow."

FRIDAY

DESIGN CAN'T BE AUTOMATED:

Finding space in a tight program for the enlarged and new labs is a difficult job for the architect, even with CAD. ArchiCAD files enable swift revisions, but the design process takes time. Senior designer makes changes to computer files, plots drawings, and reviews design with principal, who redlines plots. CAD edits and plots go through several rounds to accommodate the client's requests. Updated partition plan is faxed to client at end of day.

SENIOR DESIGNER:

"We finished the partition plan, so the client is happy. But now our ceiling plans and receptacle plans are a mess. There goes the weekend."

SATURDAY

DESIGN RAMIFICATIONS:

The revised partition plan affects the ceiling plan, which combines exposed-deck and acoustical ceiling tiles. Principal and senior designer generate schematic redesign of ceiling plan by hand. Junior designer begins reconfiguring ceiling plan on the computer according to new scheme. Senior designer electronically revises partition plan to add new light fixtures and adjust fixture locations.

SENIOR DESIGNER:

"The partition plan is in good shape, and the ceiling plan is coming along. But we need to address new equipment loads and mechanical strategy."

SUNDAY

COORDINATING INFORMATION:

Revised information is layered on CAD drawings for engineers. New equipment affects circuit requirements, air flow. Senior designer creates new switching diagram and new mechanical cartoon to suggest locations of diffusers, sprinkler heads, and life safety elements, including strobes, exit signs, and alarms. Plans are cross-checked for coordination.

SENIOR DESIGNER:

"Tomorrow we reissue the partition plan, ceiling plan, and receptacle plan to the mechanical and electrical engineers and the client's telecommunications vendor."

MONDAY

BACK ON TRACK:

Principal reviews drawing set. Senior designer makes corrections and sends to client for final approval. Plans, partition drawings, select ceiling details, and light fixture specifications are assembled and bound, and electronic files are converted to .DXF format and copied to disks for distribution to engineers and all parties. Those who can't wait for express mail delivery on Tuesday are sent digital files by modem. Engineers are re-released to commence development of mechanical and electrical designs.

PRINCIPAL:

"We spent 15 percent of our design development fee in four days because of 'a little reorganizing.'"

Principal: 4 hours at \$125/hour	\$500	Principal: 2 hours at \$125/hour	\$250	Senior Designer: 6 hours at \$75/hour	\$450	Principal: 2 hours at \$125/hour	\$250
Senior Designer: 10 hours at \$75/hour	\$750	Senior Designer: 10 hours at \$75/hour	\$750	Junior Designer: 4 hours at \$65/hour	\$260	Senior Designer: 8 hours at \$75/hour	\$600
Cost	\$1,250	Junior Designer: 6 hours at \$65/hour	\$390	Cost:	\$710	Cost:	\$850
		Cost:	\$1,390				

TOTAL COST = \$4,200

clearly described up front. Ferguson finds the hidden benefit of this approach is the chance to follow local clients, like Federal Express, as they expand worldwide. "Eighty percent of our work is nonlocal," he notes. "If the job is really far away, we set up a client-specific Web site where they can review and redline drawings as if we were still serving them locally."

Clients increasingly demand such Internet-based communications, especially the high-tech companies of Northern California. Tom Gerfen, president of Robinson Mills + Williams (RMW), a 100-person firm with four offices in the region, observes clients setting up project-specific Web sites and insisting that architects communicate on their terms. For the design of complex teaming workspaces, RMW uses 3-D modeling tools like form•Z and Allplan FT, gaining "client buy-in" to "break out of the box" of conventional office cubicles. While his clients value CAD's flexibility, Gerfen maintains, "The expectation of speed is always there." For example, RMW's San Jose office employs "smart permitting"—a client-driven initiative for speedy approvals of online filings with 29 Silicon Valley municipalities.

Virtual services

Speeding project information was a key goal of Curtis Wayne in founding his own Greenwich, Connecticut-based practice after a decade as a corporate buyer of other architects' services. During those 10 years, Wayne worked for financial powerhouses Citicorp and the now-defunct Drexel Burnham Lambert. That experience "really teaches you what's wrong with traditional delivery from the client's perspective," he says. In response, Wayne built a "virtual firm" around interactive 3-D design, performed live in the offices of his retail branch-banking clients. By running DOS-based DataCAD under IBM's OS/2 operating system, Wayne achieves the speed—even on inexpensive 486 laptops—to explore "what if" design alternatives while his clients watch.

Wayne asserts that clients are *right to expect the process to be*

PRINCIPAL: "We spent 15 percent of our design development fee in four days because of 'a little reorganizing.'"

faster and cost less. "We're raising our clients' expectations because we see that as our competitive advantage." As a by-product of his inherently three-dimensional design process, Wayne's clients get 3-D visualizations (quick-shaded perspectives) for free.

An architect expanding client expectations in another dimension is Philadelphia's Mike Rosen. After playing a virtual reality game at a local "fun-plex," Rosen envisioned architect and client, both immersed in a virtual environment, designing in true collaboration. To realize that dream, Rosen spun off a separate visualization company, RWZ Incorporated, from his 30-person design firm. His biggest problem is "Hollywood syndrome—real-time photorealism that few can afford. We are constantly educating clients about multiple uses of this technology, so they can fund it from their marketing budget, rather than from what they've allocated for design."

Computer resistance

Meeting rising client expectations is an issue for firms still working in "real reality" as well—for example, the New York City firm of R.M. Kliment and Frances Halsband Architects. Partner Richard McElhiney notes that as the firm's institutional clients see computer capacity increasing, they may ask for

additional studies or multiple interior renderings they might not have requested before. In response, Kliment and Halsband has chosen to reinvest productivity gains from CAD into increased quality: The firm takes the time saved on each drawing and applies that savings to producing more sheets of drawings and more details per sheet, thereby tightening design control.

Someday, all clients may be so well-schooled in the inevitable trade-offs among speed, cost, and quality of service that questions of technological capability will be moot. In the interim, one firm that successfully resists computerization is New York City-based Tod Williams Billie Tsien & Associates. "Not using CAD has been an issue for 10 years," explains Partner Tod Williams, "but we take it head-on. Institutions have asked us to work on computer, and we would—if they can prove to us our work will be faster or better. So far, we're unaware of losing a client that way."

Williams and Tsien keep their staff fewer than 10, all working in one room. They view the absence of CAD as a plus, allowing for a design overview too easily lost in a maze of CAD-linked reference files, monitor screens, and half-size plots. "We have depth and continuity because everyone in the office can draw what I draw, and I can do everything they can," concludes Williams. Although he admits that some complex geometries, like the interiors of the Scripps Institute of Neuroscience in La Jolla, California (*Architecture*, March 1996, pages 82-93), make him wistful for the fluidity of CAD, "manual drawing still works well for us."

Even in the accelerated realm of "Internet time," no one has yet written a computer program to accelerate creative thinking. Regardless of new and emerging technologies, clients—even the wayward clients of the pseudonymous Stanley—should be educated to pay for results, not the tools used to produce them.

Architect Jerry Laiserin is an editor of ACADIA, the quarterly journal of the Association for Computer-Aided Design in Architecture.

Aluminum Extrusion

Milliken's Profile MP-4 aluminum extrusion for signs and awnings (left) purportedly requires fewer trusses, thanks to a new, rigid design. The MP-4 measures 4 by 1 inches, and two staple-in channels are cut along the 1-inch and 4-inch sides. The system can be welded in place, or screwed together using Milliken's Fast-Clip System. *Circle 290 on information card.*

Steel Finish

The roof of Cesar Pelli & Associates' new terminal for Washington, D.C.'s National Airport (far left) is clad in flat-rolled stainless steel from J&L Specialty Steel. Called Architex, the product's nondirectional, low-gloss finish is designed to give off low glare and minimal reflection. *Circle 291 on information card.*

Colored Surfacing

DuPont's line of Corian surfacing (right), previously available in muted shades, now includes eight bright new colors: yellow, orange, red, green, purple, black, black with colored flecks, and white with colored flecks. Architects can also order custom colors from the manufacturer in smaller quantities than was previously allowed. *Circle 292 on information card.*

Finishing Systems

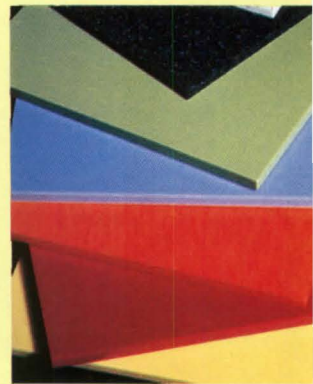
Manufacturers increase fire- and water-resistance of walls and roofs.

Accent Molding

New polyvinyl chloride accent moldings are now available from Marlite (far left). The Borders line is available in red, orange, yellow, blue, green, black, and white, in 4-inch-high-by-96-inch-long strips. The moldings are designed for use with Marlite's FRP and Symmetrix paneling. *Circle 293 on information card.*

Translucent Panels

A Kalwall-clad, skylit atrium (left) forms the center of the Richland County Public Library in Columbia, South Carolina, designed by Stevens & Wilkinson with Aubry Architects. Pre-engineered, rigid frame aluminum box beams from Kalwall's Structures Unlimited division house the manufacturer's translucent sandwich panels. *Circle 294 on information card.*



Problem: *Wear and tear.*



Solution: *Azrock Solid Vinyl Tile.*

Its heavy-duty composition makes it the most durable floor on the market.

Some clients want a gorgeous, contemporary floor. Some want ease of maintenance. Some want affordability. But everyone needs a durable floor that won't crack or break. Azrock SVT is the one floor that combines what you want with what you need. Beautifully.

For more information call an Azrock Flooring Consultant at 1-800-921-1717.

AZROCK
COMMERCIAL FLOORING
is a brand of **DOMCO**.

Circle 158 on information card



Mildew-Resistant Finish

PMR Finishes from Dryvit (left) contain a chemical that combats mildew growth. When mildew begins to grow, the chemical is triggered. The finish also prevents the settling of airborne dirt and pollutants on building surfaces. The PMR finish can be applied to Dryvit's exterior insulation and finish system (EIFS) products, as well as other types of interior and exterior surfaces.

Circle 295 on information card.

Drainable EIFS

To prevent the build-up of moisture beneath the surface of its EIFS, Dryvit has introduced the Residential MD System (far left). Drainage channels within the system and at its bottom allow water to escape. The system attaches to a plywood or OSB substrate using special washers and fasteners that improve wind-load performance. *Circle 296 on information card.*



Fire-resistant Panel

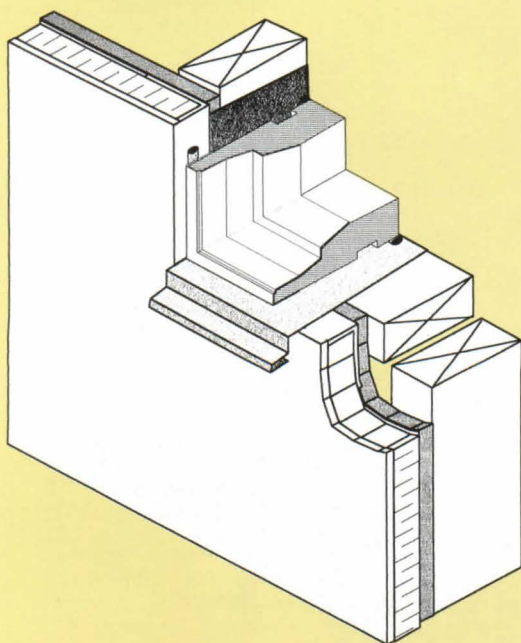
Firefinish (above left) is a new structural building panel from AFM Corporation, with a fire-resistant thermal barrier applied to its oriented strand board surface. The thermal barrier not only provides fire protection, it also served as a finished interior surface. Panels measure 24 feet long, and from 4 to 8 feet wide.

Circle 297 on information card.

Drainage System

The new Water Master drainage system from Parex (right) prevents water from gathering beneath the surface of the manufacturer's EIFS. Ribbed insulation board beneath the surface of the EIFS provides drainage channels. A waterproof flashing membrane and a house wrap prevent water from reaching the substrate. A vented track at the bottom of the wall releases the water.

Circle 298 on information card.

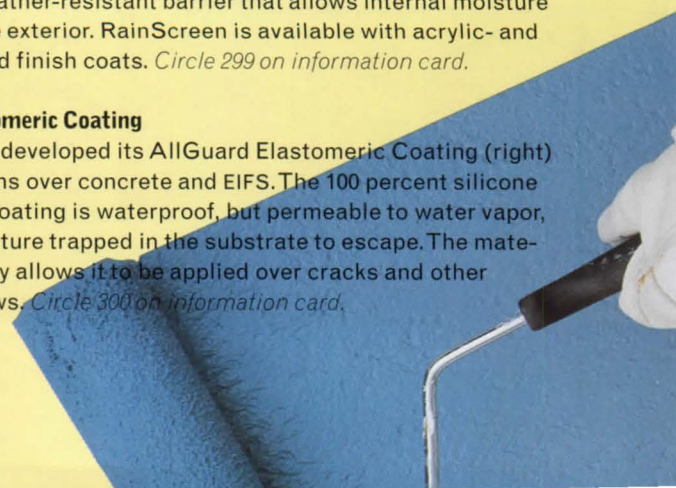


Rain Screen

New EIFS from Sto, the RainScreen (left), incorporates a drainage cavity and weather-resistant barrier that allows internal moisture to drain to the exterior. RainScreen is available with acrylic- and silicone-based finish coats. *Circle 299 on information card.*

Silicone Elastomeric Coating

Dow Corning developed its AllGuard Elastomeric Coating (right) for applications over concrete and EIFS. The 100 percent silicone elastomeric coating is waterproof, but permeable to water vapor, allowing moisture trapped in the substrate to escape. The material's elasticity allows it to be applied over cracks and other substrate flaws. *Circle 300 on information card.*



Product Information for May 1997 Advertisers

52	Act-Mathys / p35, 37, 39	54	Kinetix / p40
62	Advance Lifts, Inc. / p52	136	Landscape Forms, Inc. / p162
—	AEC Systems / p25	144	LCN Closers / p168
154	Alpolic/Mitsubishi Chem. America / p193	42	Louisiana-Pacific / p30-31
28	Alusuisse Composites, Inc. / p12	44	Marvin Windows & Doors / p166-167
—	American Standard / p41-42, 59-70	48	Mockett, Doug Company Inc. / p36
—	American Plywood Association / p78A-B	56	Monsanto Contract Fibers / p44-45
30	AMX Corporation / p13	168	Mont Hard Corp. / p93
01	Andersen Windows / p32-33	142	National Gypsum Co. / p165
—	Architects First Source / p208-209	122	Nemetschek Systems Inc. / p108
14	Armstrong World Industries / pC2, 1	46	Nextel Communications Inc. / p34
164	ARRIS / pC3	16	Nixalite of America / p4
—	Autodesk / p82-83	24	Oce USA / p9
158	Azrock Industries / p196	86	Parex / p77
118	Belden Brick Co. (East, Midwest) / p106	100	Pemko / p95
152	Bentley Systems / p191	92	Petersen Aluminum / p88
104	Bergerson / p98	68	ProSoCo, Inc. / p55
40	Beta Lighting Ltd. / p29	98	Raynor Mfg. Co. / p94
90	Bobrick Washroom Equipment / p84	20	Roppe Corporation / p6-7
—	Brick Institute of America (regional insert) / p17-24	18	Schuller Roofing Systems / p5
112	CADSPEC Multimedia / p103	88	Semaphore, Inc. / p80
146	Celotex / p174	50	Siedle Communication / p38
162	CNA Insurance / p207	110	Sloan Valve Co. / p102
82	Copper Development Assoc. / p74-75	120	Southern California Gas Co. (West) / p106
80	CRSI / p73	2, 4	Spacesaver Corp. / p78
132	C/S Group / p114	6, 8	Spacesaver Corp. / p78
—	Design Intelligence / p182-183	10, 12	Spacesaver Corp. / p78
36	Dupont Antron / p26-27	138	SPI Lighting / p163
150	Dupont Corian / p187	124	Spring City Elec. Mfg. Co. / p109
74	Durst Organization / p58	134	Steelcraft / p160-161
60	EFCO Corporation / p50	72	Structures Unlimited / p57
116	Elf Atochem N.A., Inc. / p105	76	Subaru of America / p72
34	Endicott Clay Products Co. / p16	102	T Clear Corporation / p96
126	Follansbee Steel / p110	106	Telebuild / p99
58	Hanover Arch. Products / p48	96	Trimco / p92
66	Hartmann Sanders / p54	32	Truebro, Inc. / p14
22	Haws Drinking Faucet / p8	166	USG Interiors, Inc. / pC3
64	High Concrete Structures / p53	128	Vistawall Arch. Prods. / p111
160	Holophane / p205	94	Von Duprin, Inc. / p90-91
70	Hopes Windows / p56	130	Vulcraft / p112-113
84	ICI Paint Store / p76	26	Weather Shield Mfg. Inc. / p10-11
38	Inclinor Co. of America / p28	—	Whitney Library of Design / p81
156	J & L Specialty Steel / p194	114	Wiley, John & Sons / p104
108	Kawneer Corp. / p100-101	148	Wiremold Company / p175
		140	Zero US Corp/Quattrocchio / p164

ADVERTISING SALES OFFICES

ADVERTISING SALES HEADQUARTERS

Stephen B. Donohue
Publisher
(212) 536-5041

Robert M. Hoover
Production Director
(212) 536-5234
1515 Broadway, 11th Floor
New York, NY 10036

WEST/NORTHWEST

James D. Anderson,
(714) 855-0808
Anderson Associates
27001 East La Paz Road
Suite 400
Mission Viejo, CA 92691

MIDWEST

Jack E. Bergren
(312) 464-8505
936 The Merchandise Mart
Chicago, IL 60654

John W. Maisel
(630) 416-0780
Maisel Media Associates
1928 Pleasant Hill Lane
Lisle, IL 60532

Edward R. Novak
(847) 658-7133
ER&J Associates, Inc.
1637 Glengarry Court
Algonquin, IL 60102

NEW YORK/CONNECTICUT/SOUTHEAST

D. Douglas Johnson
(610) 935-8522
1625 Oak Hill Road
Chester Springs, PA 19425

Steph Popiel
(908) 996-7502
Johnson Associates
18 Indian Creek Road
Pittstown, NJ 08867

William Middleton
(770) 973-9190
Johnson Associates
561 Robin Lane
Marietta, GA 30067

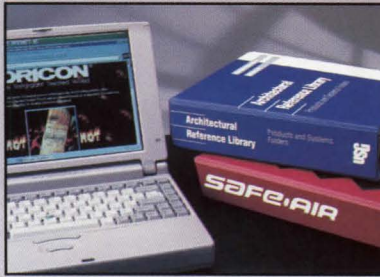
NEW ENGLAND/MID-ATLANTIC

George T. Broskey
(610) 640-3123
Eastern Sales Manager
301 Lindenwood Drive
Suite One
Malvern, PA 19355



MANU-SPEC®

Proprietary Specification - Using The Construction Specification Institute's MANU-SPEC three-part format, manufacturers can provide a proprietary product specification which can easily be incorporated directly into the specification of any project, saving virtually hours of research and writing time. Available in print and on the Internet through First Source Online.



First Source Online

Manufacturer's Marketing - Through First Source Online, the building team not only has Internet access to the preliminary, technical and proprietary information available in print, but also a direct link to additional information from manufacturers via their individual Web sites. This is a major step forward in the delivery of building product information, and for the first time, satisfies the needs of both the specifying professional and the manufacturer.

We Could Call it a System, but The Building Team Prefers to Call it a Solution.



SPEC-DATA and MANU-SPEC are registered trademarks of
The Construction Specifications Institute

Circle 170 on information card

A disturbing phenomenon has emerged in architecture over the last decade: the very small number of young practices that grow into midsized (60 to 120 people) or large firms (more than 120 people), regardless of their ambitions and prestige.

In the 1960s and 1970s, many entrepreneurial, under-40 architects started new firms that grew rapidly and completed large commissions, often at a high level of design excellence. In New York City, Davis Brody & Associates; Gwathmey Siegel & Associates; Polshek and Partners; and others achieved prominence while the principals were still in their 30s. In the Bay Area, Gensler; Robinson Mills & Williams; Backen Arrigoni & Ross; ELS/Elbasani & Logan Architects; and my own firm, Kaplan/McLaughlin/Diaz, were among a group of 20 new offices that grew rapidly and are still vigorous.

financial league as peers in law, finance, and medicine. How much that has changed!

The financial picture in architecture darkened considerably during the 1980s. Architecture went into a slump as fee competition increased and remuneration dipped to very low levels. At the same time, opportunities in design spread into other professions—interiors, graphic design, even entertainment. The result is that fewer entrepreneurs go into architecture.

More change, not all positive, seems to be in store for the profession. As architects currently enjoy a mini-boom, salaries are at last being pushed up by competition for employees, but remain low. Fees are not going up. Entrepreneurial principals are going to receive even less money. Accentuating this problem is the fact that many of these older firms enjoyed both design and entrepreneurial talent in one person,

No Growth

Where have all the entrepreneurial design firms gone?

But today in San Francisco, there are no firms with principals in the 30- to 40-year-old age group whose size or growth remotely resembles what so many were able to achieve two generations ago.

Is this phenomenon peculiar to the Bay Area? No. A look at New York City, Boston, Portland, Seattle, and Los Angeles reveals a similar pattern. What is the reason for this no-growth trend? One explanation is that it's more expensive to start a practice in the era of high technology. But that is not a powerful enough rationale to explain the dearth of growing practices.

Are clients more conservative and less willing to give jobs to young architects? This is unlikely because, if anything, the client world itself is run by younger people who are more sympathetic to their peers.

The key reason is that the entrepreneurial personality has virtually vanished from the ranks of architectural graduates in recent generations. This disappearance is understandable when you consider that in the 1950s and 1960s, successful architects more likely found themselves in the same

with rewards of design compensating for the lack of money. Today, such talented individuals may find architecture less attractive as projects and practice grow more complex, more managerial, and the design process becomes an increasingly minor part of a modern building's creation.

Can the prominent firms now led by the older generation be expected to continue their size and vigor under their successor principals? Less than half will make it. Many will be swallowed up, like the merger of Nix Mann & Associates and Perkins & Will. Others will simply disappear, such as The Architects Collaborative. Many who had achieved their design quality based on one principal may well see their quality diminish when that principal retires. The departure of the designer/entrepreneur will mean further erosion of quality and increasing dominance by large "service" firms. Watch out. *Herbert McLaughlin*

Herbert McLaughlin cofounded Kaplan|McLaughlin|Diaz in 1963 at age 29. By 1973, his firm had 90 employees; today it has 190.



ARRIS

BEST ARCHITECTURAL CAD



Private residence in San Diego, CA
Kent Larson Architect, PC
ARRIS computer image rendered with Lightscape

The Software for Architects

See us at **AIA EXPO 97** Booth #1458

In November, 1996, a unique competition was held in Boston to determine the **Best Architectural CAD** software. The results?

Over 300 architects and design professionals voted ARRIS, by Sigma Design International, the "**Overall Winner**" in a head-to-head contest with AutoArchitect using AutoCAD, Microstation TriForma by Bentley, Allplan by Nemetscheck, ArchiCAD, MiniCAD, DataCAD, and Architron.

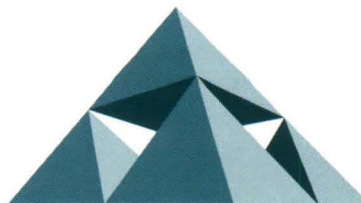
ARRIS voted:

- ★ *Best Overall Architectural CAD*
- ★ *Best Conceptual Sketching*
- ★ *Best Design*
- ★ *Best Presentation*
- ★ *Easiest at 3D Modeling*
- ★ *Most Accurate 3D Modeling*
- ★ *Best Quick-Shaded Perspectives*
- ★ *Best Animation*
- ★ *Best Rendering*
- ★ *Best Network Collaboration*



"We congratulate the ARRIS Team and also Sigma Design, the developers of ARRIS. They clearly demonstrated that they are the current standard bearers of architectural CADD excellence."

Geoffrey Langdon
CAD Shoot-out Organizer



ARRIS

Life's short. Work smarter.

<http://www.arriscad.com>

1-888-990-0900 (toll free US & Canada)

ARRIS is a registered trademark of Sigma Design International. All other brand, company or product names or trademarks belong to their respective holders.



ACOUSTONE. BEAUTY THAT ENDURES.

ACOUSTONE™ ceilings—like Glacier™, Frost™, Sandrift™—bring lasting beauty to an even higher level of performance.

Their unique cast construction withstands the abuse caused from accessing communications lines, routine maintenance and the ever-changing role of your interior spaces.

ACOUSTONE ceilings also withstand the test of time. A wide range of imaginative textures, white plus 24 integral colors, and industry-leading acoustical properties all support a design that's practically timeless.

Make sense out of a beautiful ceiling's future with ACOUSTONE. Only by USG Interiors. For more information call (800) 950-3839.

CEILING THAT MAKE SENSE.

© Copyright 1995, USG Interiors, Inc. "Grasslands in Eastern Wyoming" is fourth in a series of landscape photographs by Gary Irving. For a poster, call (800) 950-3839. Posters available only while supplies last.

Circle 166 on information card

USG Interiors