

ARCHITECTURAL RECORD

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CANADIAN EMBASSY IN WASHINGTON**

**WILLIAM CURTIS ON
THE GRAND PLANS OF PARIS**

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**RECORD's new design:
The good . . .**

Heartiest congratulations on the new look of ARCHITECTURAL RECORD. From the moment I saw the cover with its glossy stock, I knew something was in the wind.

I like the new format very much, and this issue is particularly exciting. Although I had no problems with the earlier look, I admire the readability and the friendliness of the print, the manner in which projects are presented in depth rather than in snippets, the quality of the color, and the bright department headings. RECORD is unlike any other architectural publication. Furthermore, it is a reflection of your respect for quality and design principles.

The new decade seems to have called forth an outpouring of looking into the future with predictions of all kinds. So long as we can count on your commitment to quality and the need to articulate what is best about our profession, the future will take care of itself.

**ROBERT D. KLEINSCHMIDT
POWELL/KLEINSCHMIDT
INTERIOR ARCHITECTURE
Chicago**

As you probably know, we get our RECORD later than most. As a result, this letter is probably reaching you later than the other fan letters about the new format that have undoubtedly been cascading over your desk.

In brief, the new design is terrific. The magazine is lively and dense. The content is really interesting and apropos and extremely well organized.

Congratulations.

**HERBERT McLAUGHLIN
KAPLAN•McLAUGHLIN•DIAZ
San Francisco**

Congratulations! Your newly designed January issue looks great. Clean, concise, very readable. My congratulations to all who had a hand in creating the new look. I like it.

**GENE WEYENETH
Hilton Head,
South Carolina**

Mr. Wyeneth was formerly the publisher of ARCHITECTURAL RECORD.

I want to congratulate you on the launching of ARCHITECTURAL RECORD's new format and express my pleasure at seeing my photos figure so prominently in your handsome new layouts.

I am also thrilled with the marked improvement in the quality of photo reproduction and am reminded of a desire to visit your printer so that I might enhance my technique.

**PAUL WARCHOL
PHOTOGRAPHER
New York City**

Your new logo is terrific, a lot better than that awful looking one you had just prior to the redesign, with the word "Architectural" trapped in its little box.

**LARRY W. YOTHER, LIBRARIAN
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STATE OF CONNECTICUT
Hartford, Connecticut**

. . . and the less than perfect

I am a graphic designer and have been an avid reader of your publication for years. I have always followed the architectural world with great interest, and ARCHITECTURAL RECORD has had a unique combination of good editorial writing, lush photography, and sophisticated design.

I was therefore both surprised and disturbed to see the new design. Although I am by no means a purist towards the format of Massimo Vignelli, he did give the magazine an elegant, distinctive look that fit the subject matter. The new look is, in contrast, utterly without style and distinction.

The Design News section is particularly disappointing—there is a bland sameness to the pages that recalls an in-house company newsletter. There is no scale, balance, or variety throughout the publication, and the typography is clumsy.

You stated in your editorial "less elegant than before. . . but more friendly." Can't it be elegant and friendly? "Less subtle, but more explicit. . . less consistent, but more varied and surprising." In my experience, one quality does not have to exist without the other, and the architecture you showcase proves it.

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died. "Those aren't my panels! I ordered beige!"

The carpeting was down, the walls were painted, the door bucks were stained. Important clients would be coming to see the installation in a week. Disaster.

Mike called Jane Williamson, his Steelcase rep, and she got on the phone to Dealer Services in Grand Rapids. They authorized the panel factory to do whatever was necessary to correct the rest of the order, but the 500 red-red orange panels that were already at the bank had to be fixed on-site.

On Friday, the factory flew in 1,800 yards of beige fabric. Saturday morning, three Steelcase technicians from the Athens, AL, factory arrived

and met five of Waldner's installers at the bank. They set up an assembly line, ripped off the old fabric, put on the new. By Sunday evening, working around the clock, they'd completely reupholstered all 500 panels.

The bank was up and running by Wednesday. While the bank's important clients toured the new installation, Jane and Mike took the guys from Athens, who'd never been to New York City, to see the Statue of Liberty.

"Steelcase really came through in a clutch situation," Mike says. "It was an amazing job. No other manufacturer could do that, or would."

No other dealer, either.

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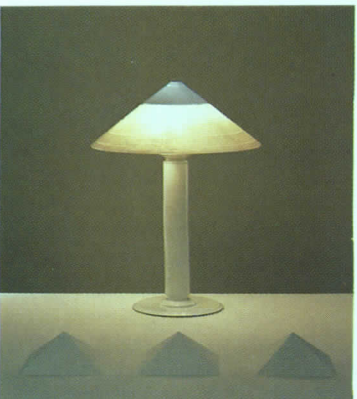
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Coming to agreement.

Shepley Bulfinch Richardson and Abbott designed a multimillion dollar addition to a large medical facility. They specified a flooring they had used many times before for the operating rooms.

Shortly after installation, the floor began to bubble. The hospital was forced to close its operating rooms because of risk of infection, and was understandably upset at the loss of revenue. Although it was unclear what the problem was, the hospital wanted Shepley Bulfinch to side with it in a lawsuit against the contractor. The architectural firm was apprehensive that it would somehow get drawn into the suit, even though its relationship with the hospital was excellent. Shepley Bulfinch was also reluctant to line up against the contractor, since it felt the contractor had performed in a responsible manner and was actively seeking a solution to the problem.

Leo McEachern called Jim Raymond, DPIC's Eastern claims manager, and after some discussion of the situation, Jim asked if Shepley Bulfinch would be willing to try mediating the dispute. He explained the nature of the non-binding procedure. Leo said yes, and Jim put him in touch with a mediation firm DPIC has used successfully many times.

The mediation firm worked hard to assemble the parties to the dispute: Shepley Bulfinch, the hospital, the flooring manufacturer, the flooring subcontractor, and the general contractor. They met at 10:00 one morning in the architect's office. The mediator asked everyone to state his case individually in an open forum. He then met with each party in a private session.

He suggested a settlement in which each of the parties involved contributed a proportionate sum toward the approximately \$200,000 the hospital needed to remedy the problem. By 3:00 that afternoon, agreement had been reached, all parties were satisfied, and all that remained was obtaining releases from all parties. No lawsuit was ever filed.



Jim Raymond is manager of DPIC's Eastern Division office in Clifton, New Jersey. He has over a dozen years of experience in handling professional liability claims.

James Raymond

Claims happen. It's what you do when they happen that shows the stuff you're made of.

PRACTICE

Push and Pull for Affordable Housing



Kemp, Federal Reserve governor Martha Seger, Martin, Hedien, Whiteside, and O'Brien cutting red tape.

Leaders in the insurance, thrift, and banking fields gathered in Washington, D. C., in January for the Neighborhood Reinvestment Corporation's biennial leadership conference to announce, according to the invitation, "an unprecedented national initiative" to produce affordable housing. Among them: chief executive officers Preston Martin of WSGP Financial Services, Wayne Hedien of Allstate Insurance, and Robert O'Brien of Carteret Savings and Loan. The rhetoric was sweeping, the substance, inconclusive.

The initiative, described by the executives as the "Social Compact," is meant to bring increased private lending to lower-income borrowers, but there was a failure to say how much.

Figures in the range of \$20 billion had been mentioned before the conference, but there was no commitment during the event. Nor was there any stipulation of how the money would be loaned, the qualifications to get it, or what the interest rates might be. "This has yet to be ironed out," comments a corporation spokesman.

While there are regional programs set up in, e.g., New York and Chicago, and recently initiated in California to produce low-cost housing, these have been aimed at nonprofit developers. They are encouraged to build by receiving slightly lower rates on monies in a pool committed by private lenders. Moreover, they get advice from the regional reinvestment corpora-

tions on technical aspects of their projects and on the mix of public and private financing that will keep down loan costs.

According to John Trauth, director of the San Francisco Development Fund, the regional corporations encourage lenders and borrowers toward development ventures by eliminating the individual bank's need to deal with the complexities of combining low-cost programs.

This has been one sort of arena that the national Neighborhood Reinvestment Corporation has operated in under the guidance of its board, which includes HUD Secretary Jack Kemp. And it appears more than possible that this will be *the* arena of the Social Compact if and when its terms are finally ironed out. "Strong linkages between financial institutions and community-based organizations will be key to success," said corporation executive director William Whiteside at the conference. "This is a pull for housing as opposed to a push," he adds.

Meanwhile, at least one material supplier, Hurd Millwork, has entered the quest for housing at its most basic level by offering money to the AIA Search for Shelter program (which is involved in homeless housing) in exchange for each of the company's windows and doors specified by the institute's members.

C. K. H.

National Accord on State Issues



Hammond: 'We feel positive.'

Registration for interior designers emerged as a hot topic a few years ago [RECORD, June 1988, pages 37-47]. And opposing camps of architects and interior designers continue to dispute issues such as the definition of interior designer and the educational requirements that must be met in order to practice in that field. The problem exists because there is no uniform system of registration for interior designers in the United States.

In December, as an attempt to establish guidelines for state regulation of interior designers, a representative from each of four groups—the American Institute of Architects, the American Society of Interior Designers, the Institute of Business Designers, and the International Society of Interior Designers—signed an accord on interior design title registration, which was announced at a press conference in Atlanta in January.

The December accord calls for creating a definition of interior designer to be agreed upon at the state level. Among other items, the accord frowns upon grandfathering, except when an individual meets strict and equivalent education, training, and testing criteria.

Although professionals with extreme viewpoints might be dissatisfied with the December accord, the majority of archi-

Continued on page 14

Future Vision?

Reminiscent of brave-new-world projections in the 1930s but far different in results, a house intended to show the way that people will live in the 21st century has been designed by Bloodgood Architects & Planners to reflect the demands of changing social and technological needs. Commissioned as part of *Newsweek* magazine's 1990 winter-spring special edition on the family of the future, the design foresees a plan meant to take

maximum advantage of ever-more expensive land by the direct relation of internal and external uses and a central "us" room for communal activities surrounded by spaces for such individual activities as hobbies, owner privacy, and the housing of semidependent relations (e.g., grandparents or grown children). The scheme eliminates hallways. Upstairs, children will have their own computer area and bedrooms complete with individual washer-dryers. Perhaps most interesting is an exterior



Conventional and otherwise.

appearance not too different from that of houses being built today and the retention of such familiar amenities as a fireplace. Clearly, Bloodgood's visionaries foresee evolution, not revolution, as the way of the future.

News continued from page 13
 tects and interior designers are satisfied with the compromise signified in the December accord, said architect Gerry Hammond. As chairman of the American Institute of Architects Task Force on Interiors, Hammond explained there had been many misunderstandings on the issues, which caused people to shift into a "combative mode." The tone has switched to a more conciliatory one though. "We feel extremely positive—we've gotten, so far, wonderful cooperation from all of the organizations," Hammond commented.

To date, Connecticut, Alabama, Louisiana, New Mexico, the District of Columbia, and Florida have adopted licensing statutes, said Loren Swick, executive director of the National Council for Interior Design Qualification, which administers an exam of minimum competence for interior designers. Of the six states, five adopted title registration. Only the District of Columbia passed legislation allowing practice registration.

The distinction between the

two types of registration confuses many people, even designers and architects themselves. With practice registration, only the individual who meets legislative criteria may work as an interior designer. Title registration restricts only the use of the title. Conceivably, someone without the title can work as an interior designer but simply cannot call himself by that title, explained Nancy Summerville, senior director of state and local government affairs at the AIA.

The accord calls for title rather than practice registration because the former is the best way for consumers to identify qualified providers that meet specified training and educational requirements, Summerville said.

However, some architects disagree with the concept of a national accord, in part because registration is actually determined on a state-by-state basis. Both Denis Kuhn, president of the New York Chapter of the AIA, and Douglas Korves, president-elect of the New York State Association of Architects or the AIA, agree that each

state will have to reach its own solution to the registration conflict. Meanwhile, AIA officials pointed out the accord is intended merely as a guideline for legislative action at the state level.

Currently, bills proposed by both camps are before the New York state legislature. It is likely that the results in New York will serve as a guideline for the remaining states, Korves predicted. Georgia is pushing for practice registration for interior designers, and other states are working on legislation.

Korves said he believes in limiting the scope of title registration for interior designers: "Title registration would be okay with an appropriate definition of interior designer that does not include [their making decisions regarding] walls, partitions, other interior construction, lighting layouts, mechanical systems, equipment, and life-safety systems. Interior designers lack the education in such subjects as statics and mathematics to make decisions in areas requiring the expertise of an engineer or architect." **SUSAN BLEZNICK**

A Helping Hand



Evans and Vandeberg.

"Although more women are entering the profession, we are still a minority," says Wendy Evans, an associate designer at Pei Cobb Freed & Partners. As a participant in the Clairol Mentor Program, which promotes mentoring between successful and aspiring women from a variety of career fields, Evans will serve as role model to new architect Lynn Vandeberg, sharing ideas, listening to, advising, and encouraging her over the coming year.

"Since it takes many years to achieve higher levels of responsibility, there are extremely few women" architects who have reached that point, says

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Evans. "It's hard to find someone to talk with about one's future and the opportunities and the hurdles. I never had a woman to discuss my career with so I look forward to having the opportunity just to get someone started."

Vandeberg, who specializes in corporate interiors at Macdonald/Casner, Providence, R. I., wrote in her award-winning essay: "The ideal mentor relationship includes two women who love architecture and are interested in bettering themselves and the profession through their combined exploration and discussion. They either recall or aspire to the other's position and respect each other for their experience, insights, and ideas."

"For me, architecture is a passion. A mentor will allow me a noncompetitive discourse that can offer insight into situations such as being viewed as the principal's assistant even though I've done most of the work. [Our discussions] can eventually create a friendship in which we could both share

our love of the profession."

Previously with Eric Meng Associates, of Seattle, Vandeberg now teaches a beginner's course in interior design in the continuing education program at Rhode Island School of Design, her alma mater.

Evans, who has worked as a designer on such Pei Cobb Freed projects as the JFK Airport Redevelopment and the United States Holocaust Museum in Washington, D. C., earned her master's in architecture from Harvard in 1981. She also won the 1983 Rome Prize in Architecture.

This is the second year Clairol has sponsored the mentor program, which matches well-known, established women from 11 different fields with their professional counterparts who have written statements describing the value of a good mentor relationship. The statements are read and evaluated by each mentor, who chooses the award-winner, just as Evans chose Vandeberg's essay.

CAROLYN D. KOENIG
More Practice News on page 17

Through April 8

"Frank Lloyd Wright Drawings: Masterworks from the Frank Lloyd Wright Archives"; at the Phoenix Art Museum, Phoenix.

Through April 15

"Stanley Tigerman: Recent Projects," focusing on drawings and models of architecture designed in 1989; at the Art Institute of Chicago.

Through April 29

"A Classic Usonian! Frank Lloyd Wright's 1950 House for Isadore J. and Lucille Zimmerman," at the Currier Gallery of Art, Manchester, N. H.

Through May 8

"Sir Christopher Wren and the Legacy of St. Paul's Cathedral," an exhibit including 120 drawings, models, paintings, manuscripts, and artifacts, with most of the architect's surviving drawings; at the Octagon Museum, Washington, D. C.

March 17-20

78th Annual Meeting of the Association of Collegiate Schools of Architecture; at the Hotel Nikko, San Francisco. For information: ACSA Annual Meeting, 1735 New York Ave., N. W.,

Washington, D. C. 20006 (800/232-2724).

April 3 through September 2

"Color, Light, Surface: Contemporary Fabrics," showing about 150 international fabrics; at the Cooper-Hewitt Museum, the Smithsonian Institution's National Museum of Design, New York City.

May 19-22

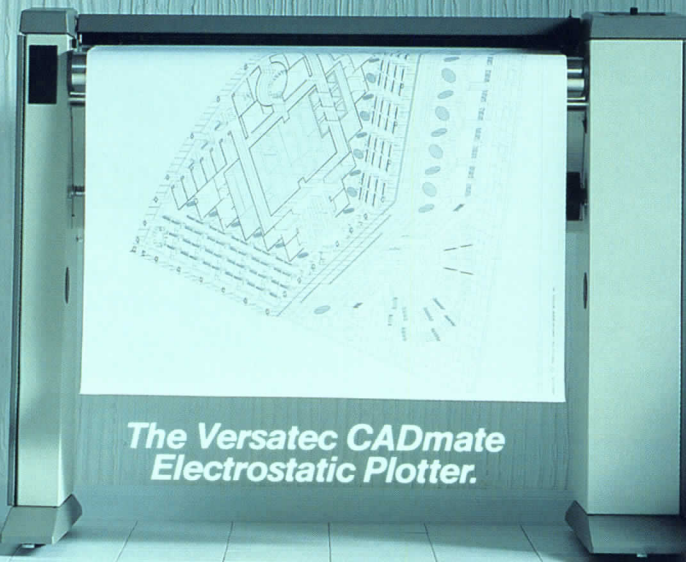
122nd Convention of the American Institute of Architects, titled "Pushing the Limits"; in Houston. For information: AIA Convention Department, 1735 New York Ave., N. W., Washington, D. C. 20006 (202/626-7467)

June 12-15

A/E/C Systems '90, the 11th International Computer and Management Show for the Architecture/Engineering/Construction Industry, a conference and trade show focusing on computer graphics, computer-aided design, construction systems, and other technology; at Georgia World Congress Center, Atlanta. For information: Kayla Faber, Intergraph Corporation, IW17C1, Huntsville, Ala. 35894-0001 (205/730-1315).

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More Optimism for Construction

Following two months of poor showings, new construction contracts picked up in December, according to F. W. Dodge, to bring the rate for the year about even with that for 1988—an encouraging result for a period in which gloom had dominated the forecasts. Nonresidential construction's December advance was 4 percent and residential's, 1 percent.

The regional variation was marked. The North Central states were up 5 percent for the



Boston looking up?

year and the Western, 1 percent. The South Central states fell 1 percent, but, points out Dodge vice president and chief economist George Christie, the modest size of the decline, after six years of mostly greater ones, "suggests that the oil patch could be stabilizing." The South Atlantic states, on the other hand, experienced their first decline since the early 1980s—2 percent. The Northeast fell by 3 percent, but, for those interested in larger-scale construction, this figure is skewed by a double-digit decline in housing.

For other types of construction in the Northeast, there was optimism in, e.g., Boston on the future of even that recent straggler, offices. A survey conducted by brokers Codman Associates reported a 2-percent decline of the city's vacancy rate in 1989 to 10.6 percent (among the nation's lowest) and a 40-percent improvement in absorption. The conclusion? Near-term demand for new office space in and around the city. In Los Angeles, the Building Owners Management Association reported similar conditions. Still, it is clear that most areas of the country will have to wait to see any new big surge in office construction.

C. K. H.

S&L Crisis Shadows NAHB Show

Builders at the 46th annual National Association of Home Builders convention in Atlanta this January had a lot to talk about, what with President George Bush and Secretary of Housing and Urban Development Jack Kemp making visits and more than 1,000 exhibitors setting up shop on the floor of the Georgia World Congress Center. The most pressing topic of conversation and concern, though, was the ongoing crisis in the savings and loan industry, in particular recent changes in regulations governing lending practices.

The so-called 15-percent rule, which limits the percentage of their capital that thrifts can lend to any single borrower, has raised a storm of protest from large builders. In the past, these builders regularly borrowed amounts much greater than the percentage allowed today. The rule change, instituted by Congress at the end of last year, is wreaking havoc with builders trying to roll over large construction loans needed to keep projects going. "Over time, commercial banks and other financial sources will pick up the slack," says Jay Shackford, staff vice president for public affairs at NAHB. "But right now it's a very disorienting time."

NAHB is lobbying Congress to grandfather projects that obtained financing before the rule change was made. "It wasn't Congress's intent to disrupt the building industry," says Shackford, but that is exactly what is happening right now.

About 65,000 people attended the show, down 1,000 from last year. A small drop in attendance

is not unusual for the second year of the convention's three-year run in a particular city. The show will remain in Atlanta next year (its third year at the same site), then move to Las Vegas for three years.

Bush, who became the first sitting President to address the convention, spoke of home-ownership, housing affordability, and home-building. Instead of proposing much in the way of new programs to address these issues, the President explained, "there's one housing policy and one sales strategy that's better than all others combined—a healthy, growing economy with low, long-term interest rates." Maintaining a fiscal approach to housing policy, he emphasized the need for a capital-gains-tax cut to spur housing starts. And instead of using some of the savings from defense cuts (the so-called "peace dividend") for housing programs, the President said, "cutting the federal budget deficit would be a true dividend for America's taxpayers."

The President's appearance and that of Secretary Kemp, though, may signal a new attitude in Washington toward housing. "We see this Administration as more sensitive to housing issues than the Reagan Administration," states Shackford. Such concern should also help push a comprehensive housing bill through Congress, something that may happen this year.

After a record number of boom years for home builders in the 1980s, recession, or at least a severely sluggish economy, seems to be stalking builders.



NAHB: throngs belie gloom.

NAHB is projecting roughly the same number of housing starts in 1990 as 1989 (1.38 million), with single-family starts creeping up a bit (to a little over 1 million) and multifamily falling (to 380,000). The drop in multifamily-housing starts is the continuation of a trend that began in the mid-1980s when tax-law changes eliminated much investment in this sector. In 1985, for example, construction began on 670,000 multifamily units, nearly double the figure for 1989.

A general sense of impending hard times was reflected in the titles of seminars offered at the convention, including "If you stay in this business long enough, you'll go broke," "A dozen ways to fail in development," and "Savings and loan reform—a survival guide for builders."

Taking over the helm as president of NAHB will be Martin Perlman, a builder from Houston. Perlman succeeds Shirley McVay Wiseman, who served as the organization's first woman president last year. C. A. P.

Houston Braces for AIA

"Pushing the Limits" (logo) will be the theme of the 122nd annual AIA convention to be held in Houston May 19-22. "That's what the architects of Houston have been doing through their buildings and in making a comeback from a locally depressed market," says current president Sylvester Damianos, although construction there is down for the seventh consecutive year (*More Optimism for Construction*, left). "The convention will

be pushing the limits of education for the architect," says the convention's chairman James Brown—a tall order for a four-day program. Nonetheless, the convention schedule does offer a full menu of varied educational programs covering both the business of architecture and the art. In the main speeches, PBS commentator James Burke will look forward to new technology, *Washington Post* writer Joel Garreau will talk about "edge

PUSHING



THE
LIMITS

cities" (those new urban areas springing up around the old ones), and architect Michael Rotundi of Morphosis will give his views on future directions of design. For more information, contact the AIA at 1735 New York Ave. N. W., Washington, D. C., 20006. Phone (202) 626-7300.

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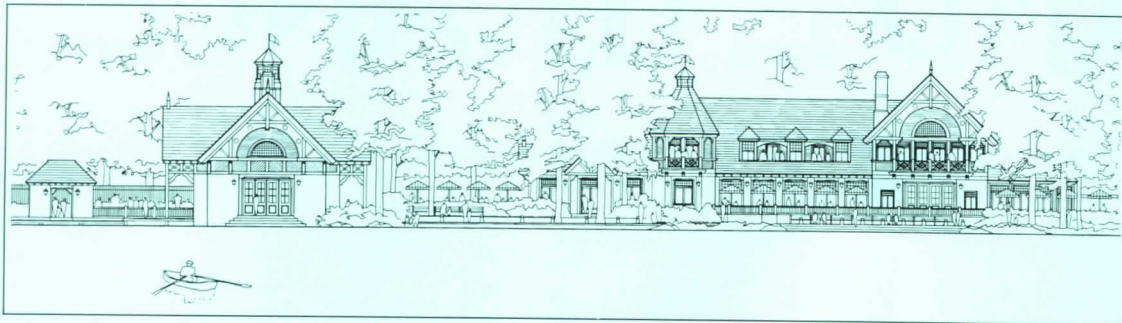
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GOODYEAR

 **ROOFING AROUND
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DESIGN

Up in Central Park on the Shore of Harlem Meer



For the last ten years and more, the powers that be in Central Park have bent their efforts to the restoration of Olmsted and Vaux's masterpiece in Manhattan. At the beginning, work was more or less concentrated on the park's southern areas, where both buildings and landscape had suffered considerably from heavy use. Now, though, the privately funded Central Park Conservancy and the public Central Park Administration have shifted their attention to the wilder, even more romantic topography of the park's rather lightly used northern reaches. Moreover, for the first time in years, plans for

the upper part include major new building.

New York architects Buttrick White & Burtis have designed a three-building complex for the shore of Harlem Meer, a lake just inside the park's upper boundary. The buildings will include (from left to right in rendering) a boat-rental kiosk, a discovery center/education facility, and a restaurant building to include an 80-seat cafeteria, a 186-seat restaurant, and a 120-seat catering hall. The building will offer outdoor eating spaces in a landscaped courtyard next to the discovery center and on a veranda overlooking the meer. The

central courtyard is also meant to serve as a public gathering place and a gateway to the park.

Although the buildings will replace a decrepit construction from the 1930s, the designers drew on an earlier style for inspiration: the turreted and domed Victorian buildings that typify the park's 19th-century structures. As with the older buildings, materials will include bluestone bases, brick walls, wood windows, metal ornament, and slate roofs.

Buttrick, White & Burtis has also been commissioned to design a new tennis pavilion for another section of the park.

Show Houses for Busy Lifestyles

What does a woman want? Answering that classic question was the goal *Family Circle* magazine set for itself in creating its "Busy Woman's Dream House" for the 46th annual National Association of Home Builders convention in Atlanta in January. Using responses from 900 of its women readers, the magazine built a house with extra storage space, a combined family room/kitchen, and a second-story retreat. The 2,500-square-foot house (photo below) was also designed and built by women—Jane Siris of Siris/Coombs Architects and Marilyn Turnipseed, head of CareCraft Homes. Now if only they could figure out what men want!

Also built for the show were a 4,000-square-foot plantation home designed by William E. Poole Designs for *Southern*



Living magazine and a modular house designed by Berkus Group Architects for *Professional Builder* magazine.

For the seventh year, *Builder* and *Home* magazines teamed up to create their own show house, The New American Home. Geared for a young professional couple with one or two children, the 2,500-square-foot house replaces the conventional living room/dining room/kitchen layout with one that features a central family room and a two-story kitchen, as well as a small parlor and dining room. The house was designed by Claude Miquelle Associates and built by Manchester Properties. C. A. P.

A Floridian Center for Music and Drama

The new Broward Center for the Performing Arts will not only offer Fort Lauderdale two theaters but will also act as the pivotal point for the Florida city's Arts and Sciences District.

Designed by architects Benjamin Thompson & Associates, the complex will include the

2,700-seat Au-Rene Theater for symphony, opera, and drama; a 595-seat theater for more intimate productions; and a 500-seat Community Hall for such purposes as meetings, rehearsals, and special performances.

The center is meant to accommodate traveling productions in

addition to such local and state groups as orchestras and ballet companies. The larger theater will have the horseshoe configuration traditional to opera houses, but the acoustics, designed by R. Lawrence Kierkegaard, will be adjustable to suit opera or musical comedy, orchestral music, or drama. The configuration of the stage is also mutable, from concert platform to proscenium stage to stage with orchestra pit.

Equally to the point, the center will sit in its own landscaped tropical garden across the street from a bend in the New River and the Riverwalk. Apart from commanding views of the city's skyline, glass walls on all buildings will convert the center into a lantern at night, illuminating adjacent courtyards and beckoning people from downtown.



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Briefs

Lewis Mumford died at the age of 94 on January 26 at his home in Amenia, New York. Though remembered chiefly as an architectural critic in his articles for *The New Yorker* and ARCHITECTURAL RECORD, Mumford preferred to be known as a social philosopher, and his book *The Culture of Cities* and other writings had profound influence on the thinking of practitioners and users of urban planning.

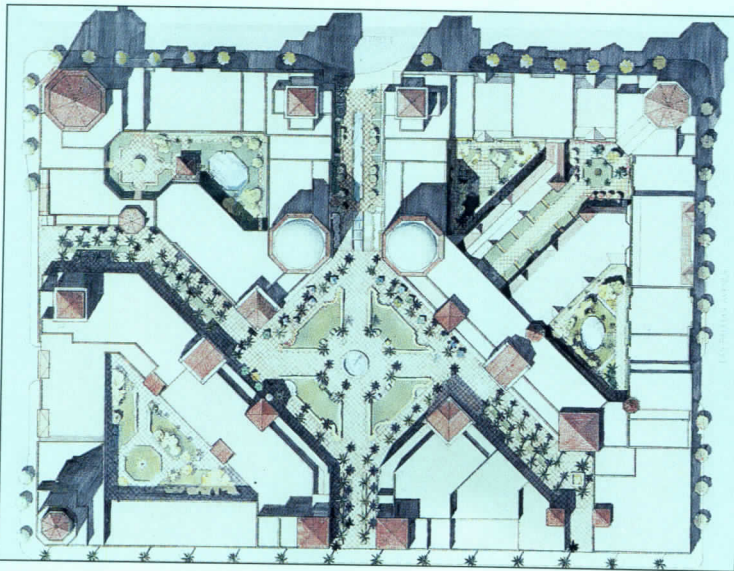
The 1990 Architectural Firm Award has been awarded to Kohn Pedersen Fox Associates of New York City. The award is given annually by the American Institute of Architects to recognize a firm that has consistently produced "distinguished architecture" for at least 10 years.

The AIA Library offers copies of articles listed in *The Construction Index*. The articles, which are drawn from 37 American architectural and construction publications, are classified according to the Construction Specification Institute's Masterformat. The cost of the service will be \$5 to AIA members, \$10 to nonmembers. For information: AIA Library, 1735 New York Avenue, N.W., Washington, D. C. 20006 (202/626-7492).

Never lose heart. Though Craig Ellwood's design for the Art Center College of Design in Pasadena, California, has been on hold since the early 1970s, ground has been broken at last for construction of the original design. James Tyler, who was Ellwood's project architect at the time, prepared working drawings for the first phase.

Architectural commissions: Elerbe Becket, New York City, and Dunlop-Farrow, Toronto, have jointly won a competition to design a high-rise office complex for Canadian National/Royal Trust in Toronto; Tod Williams/Billie Tsien, New York City, in association with Lescher and Mahoney, Phoenix, will design a major expansion of the Phoenix Art Museum and Phoenix Little Theater; Lord, Aeck & Sargent, Atlanta, has received the architectural commission for the Aaron Diamond AIDS Research Center in New York City, a joint project of the city, New York University, and the Public Health Research Institute.

A Mixture of Old and New Building on Hollywood Boulevard



Architect David M. Schwartz, who made something of a name for himself designing new buildings to fit sympathetically within the historical ambiance of Washington, D. C., now proposes to do the same for an equally storied place on the West Coast: Hollywood.

Hollywood Plaza, a mixed-use complex to be built along Hollywood Boulevard (at bottom of site plan), will offer retail spaces, offices, a health club, cinemas, and the Hollywood Wax Museum on the first two floors and apartments on the upper floors. The project will include a parking garage below

grade and possibly a Metro portal.

Located in the midst of the Hollywood Boulevard Historic District, the buildings must reconcile what some might consider the irreconcilable. The site, which occupies an entire block, contains five separate landmarked buildings on the boulevard, and the project will add 15 interspersed new buildings. The historic buildings, which include the towered Security Pacific building at one corner (rendering above), will receive extensive, and expensive, rehabilitation, while the new buildings will have similar punched windows



and articulated walls. In keeping with the sort of intellectual honesty practiced by museum curators, Schwartz took particular care to differentiate old and new. However sympathetic the new designs, the viewer should run no danger of confusing their provenance.

The development will include a number of public and private green spaces. At the center of the complex, a large plaza will be accessible to the public via wide landscaped walks from three of the surrounding streets. Tenants will have three separate raised plazas enclosed by apartments on three corners.

On Battle Creek

Despite being one of the largest of the large foundations, the W. K. Kellogg Foundation has its headquarters in a Midwestern small town: Battle Creek, Michigan. And in addition to its concern for health, education, agriculture, and the developing world, the foundation has an intense loyalty to its hometown. For its new building, and with the town's approval, it assembled a 16-acre site downtown, razed some undistinguished and empty buildings, and helped what occupants there were to relocate in a new merchandising complex—all in the hope of catalyzing further development in Battle Creek. The foundation will encourage the construction of housing and other neighborhood buildings on the other side

of the creek (at top of model).

Architects Luckenbach/Ziegelman & Partners Inc. sited the foundation's building on a prominent corner of Battle Creek's downtown and on a bend of the eponymous stream. The low-rise massing is meant to harmonize the building's size with the residential scale around it, while the

small, intimate scale of the offices emphasizes the friendly interaction of staff members.

The brick and limestone building and its adjacent parking garage will accommodate about 325 workers. Because the foundation plans to continue enlarging its staff, the building can be extended along the street.



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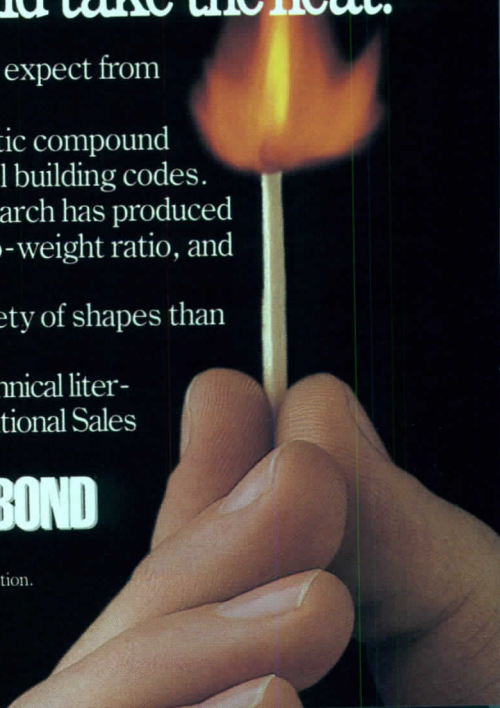
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Competition Calendar

•“A Choragic Monument to Twentieth Century Architecture” is the subject of a national architectural competition sponsored by Olympia & York and presented by the New York Chapter, AIA. Entries must be computer drawings, with or without hand embellishment, or hand-drawings with computer embellishment, and will be judged for concept and execution. Winners will receive prizes of \$3,000, \$2,000, and \$1,000. The registration deadline is March 30, the entry deadline June 29. For information: NYC/AIA, 457 Madison Ave., New York, New York 10022.

•To replace a gas station in Portland, Maine, the C. N. Brown Company sponsors the Gateway Gas Design Competition, which seeks ideas and concepts and offers a \$2,500 first prize and three merit awards of \$1,000 each. Registration, due by March 30, requires a \$25 fee; submissions are due April 23. For information: Theo Holtwijk, Stevens Morton Rose & Thompson, Inc., P. O. Box 618, Portland, Maine 04104.

•The NAMES Project Foundation and Trinity United Methodist Church of San Francisco are holding a competition, open to anyone, for a permanent home for the AIDS Memorial Quilt, to be built “on a prominent site in San Francisco.” The registration deadline is April 2, and submissions are due June 7. For information: Jonathan Pearlman, Competition Advisor, 2338 Market Street, San Francisco, California 94114 (415/626-0931).

•The 100th/442nd/MIS World War II Memorial Foundation is conducting a design competition for a memorial to be built on First Street Plaza, a mixed-use development now under construction on a site near Los Angeles’ Little Tokyo and adjoining a new Japanese American National Museum. The memorial will honor Japanese-American veterans of World War II. Submissions are due April 9. For information: 100th/442nd/MIS World War II Memorial Design Competition, 1888 Century Park East, Suite 330, Los Angeles, California 90067.

Convention Center with Built-In Railroad

In a move intended to revive its beleaguered economy, Atlantic City is planning a new convention center. Located adjacent to the Amtrak rail terminal completed last year, the new center will be used primarily for trade shows and professional society meetings; the New Jersey casino-gambling resort’s celebrated existing convention center on the Boardwalk will remain the home of the Miss America pageant and other shows, explained Gil Rosenthal, of the Philadelphia firm Wallace Roberts & Todd, architect of the proposed facility.

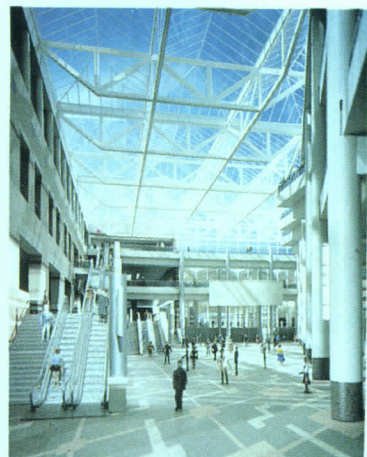
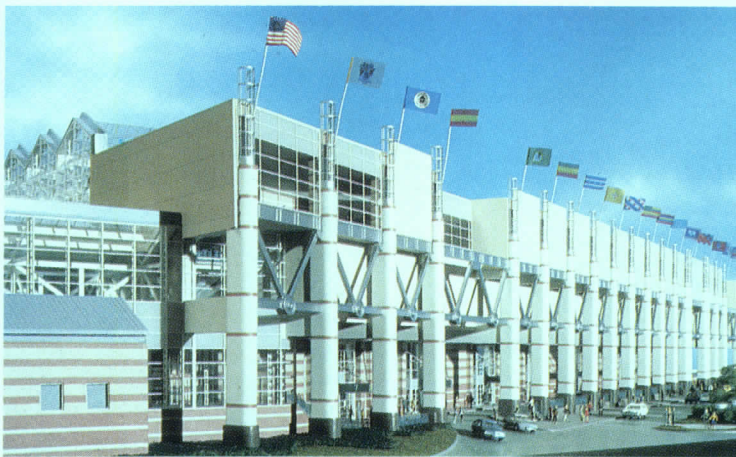
The new center occupies 1.9

million square feet and features a 500,000-square-foot rectangular exhibit hall, parking for 1,600 cars, 40 meeting rooms, and several restaurants. Interconnecting atriums will link the exhibit hall and rail terminal with a planned 800-room hotel, which will be built by an as-yet unnamed private developer. Rosenthal described the terminal as a “bright, airy space” that affords views down the railroad platforms and of the Boardwalk and the Atlantic Ocean. Addressing the building’s location on a flood plain, the architects placed the convention center’s headhouse atop a columnar

frame, allowing cars and pedestrians to pass under it. A skylit indoor street and triangular public plaza occupy the open space between the headhouse and the exhibit hall. The center will be sheathed in bands of ground-faced and split-faced concrete block.

Wallace Roberts & Todd was originally commissioned as master planner for the project, and later was asked to design the convention center and rail terminal. The combined complex is designed to accommodate 30,000 people daily and is scheduled to be completed in the fall of 1992.

SUSAN BLEZNICK



A Return to the Glory Days of Moviedom

The restoration and adaptation of beloved landmarks, even when they are intended for their original purpose, is a test of patience. Richard J. Heisenbottle Architects and Craig Stark Associates reviewed this lesson with the two-phase design of the Gusman Center for the Performing Arts in Miami.

The new facility will occupy the former Olympia Theater, designed for Paramount in 1926 by architect John Ebersson and thought to be one of only two “atmospheric” theaters remaining in Florida—a romantic proto-Disneyland architectural fantasy from cinema’s early days. Moreover, the Olympia was the first movie house in the South to be air-conditioned, and it has been placed on the National Register of Historic Landmarks.

Built in the Mediterranean Revival style, the building’s exterior is brick with terra-cotta and metal ornament, while the interior mimics a Spanish courtyard encompassed by a balconied villa and overarched by a starry sky.

In the first phase, already complete, one of the architects’ primary moves was to dismantle ill-advised renovations to reveal what was left of the original, and when necessary to replace

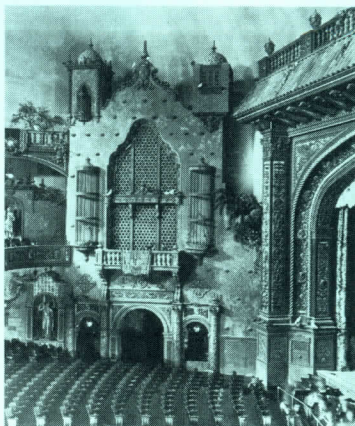
accurately tile, plaster work, wrought iron, and windows.

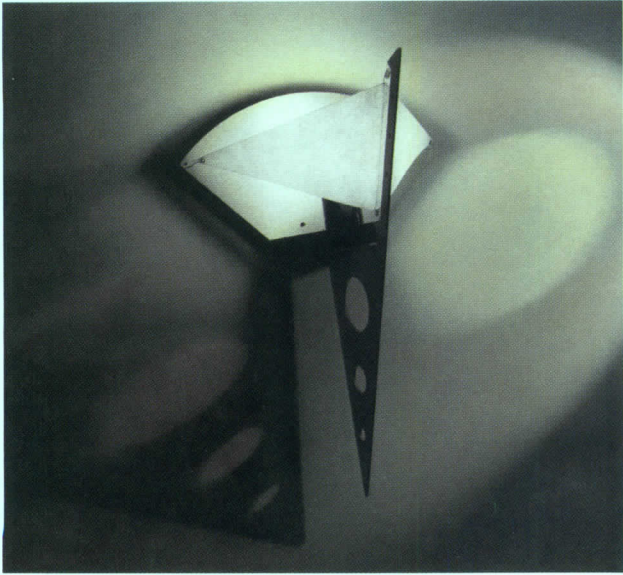
Most important, to raise the theater to the operational standard expected of an up-to-date facility, a state-of-the-art computerized theatrical lighting system replaces one that Heisenbottle characterizes as “so archaic that there were no replacement parts available.”

The second phase of reconstruction, now under way, calls for really serious, and painstaking, restoration of paint, ceramics, statuary, and French doors. The most dramatic restoration will undoubtedly be the elaborate ceiling painting.

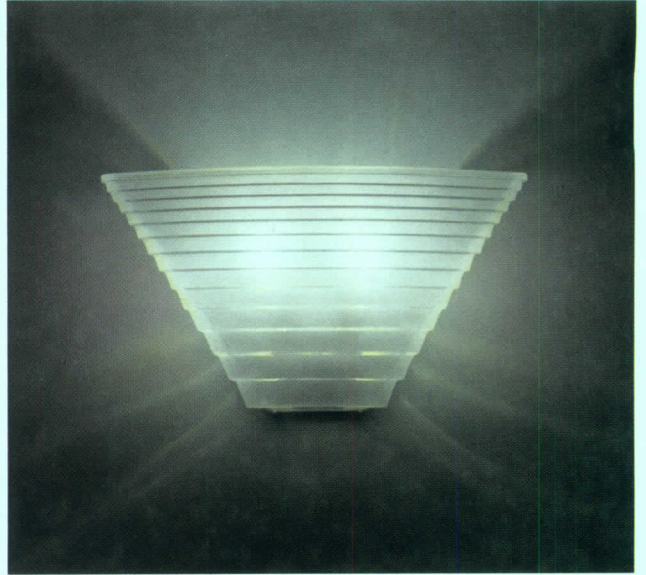
In addition, the original entrance, marquee, and poster boxes will be reconstructed, and the interior will receive new lighting, carpeting, and tapestries. A new acoustic shell will be installed on stage.

Gusman Center’s first phase cost \$1.4 million, and the cost of the second phase is estimated at \$2 million.

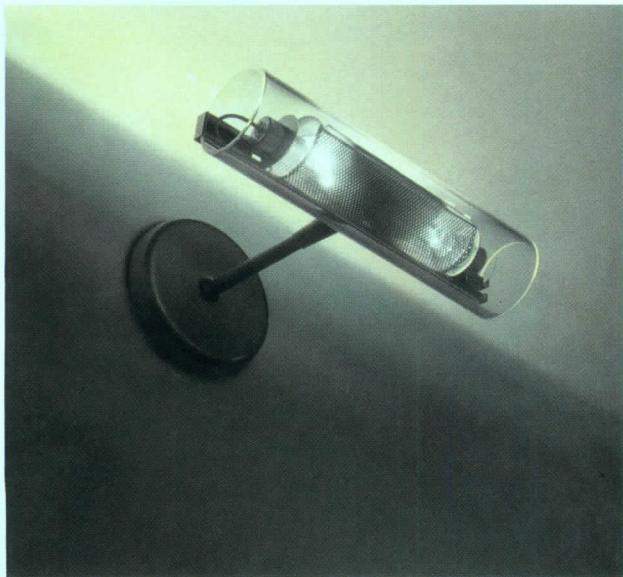




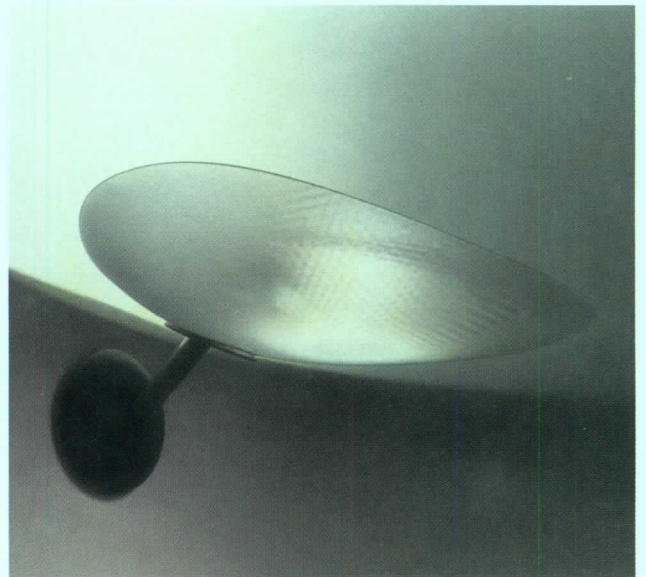
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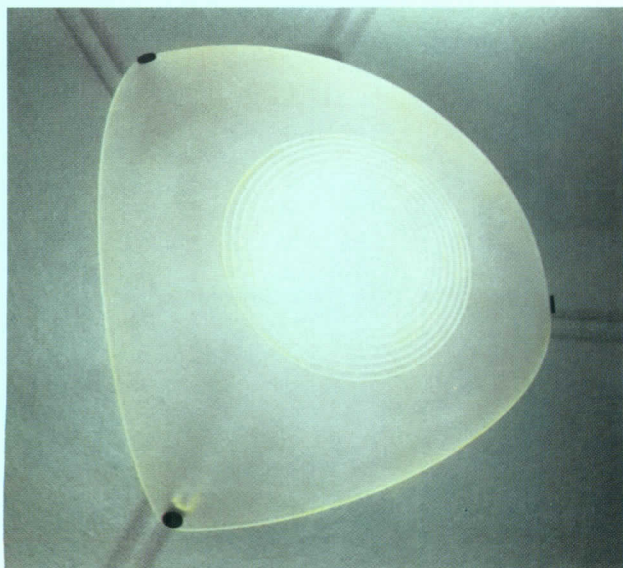
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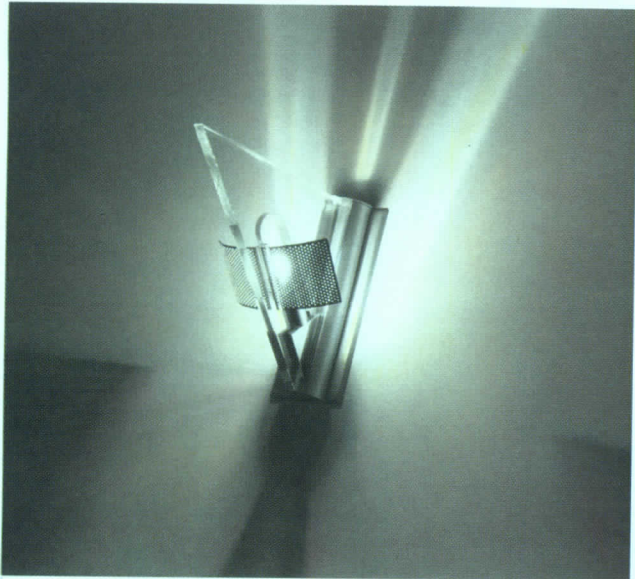
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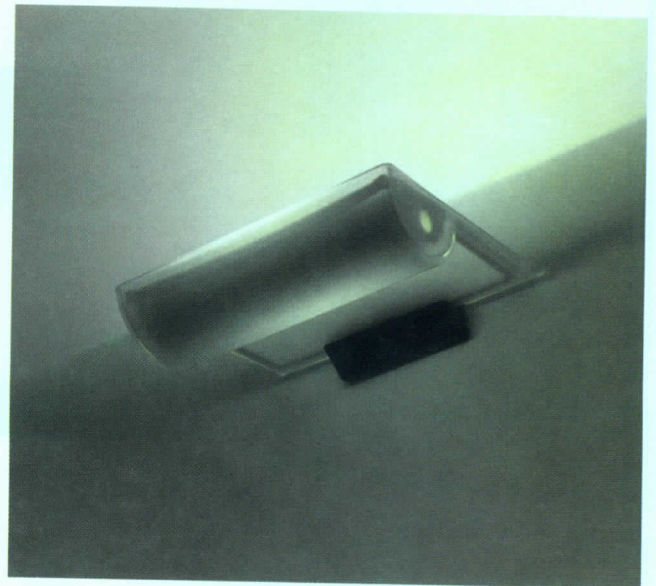


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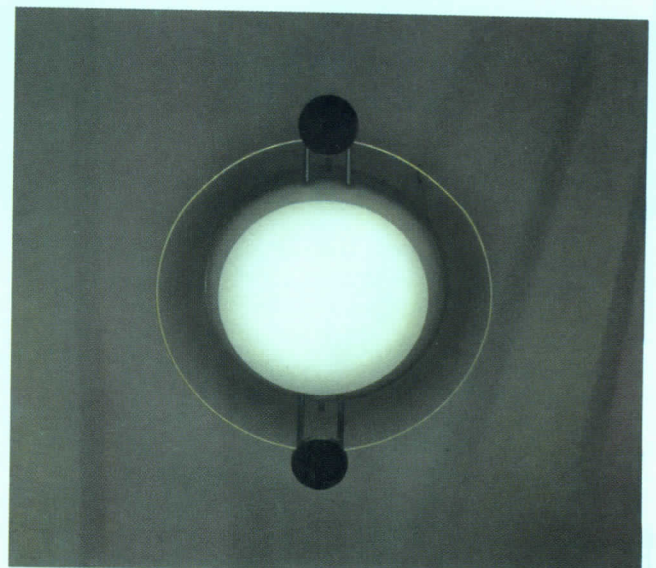
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AIA HONOR AWARDS FOR 1990



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2 The American Institute of Architects this year conferred 19 Honor Awards, its highest recognition of design excellence. The awards were given at the institute's Accent on Architecture, a newly established annual celebration to focus the limelight on the profession's honors and awards. Jurors included architects Stanley Tigerman, as chairman, Peter Eisenman, George Hartman, Samuel Mockbee, Rob Quigley, and Thomas Vriesman, industrial designer Henry Beer, and architectural student Matthew W. Gilbertson.

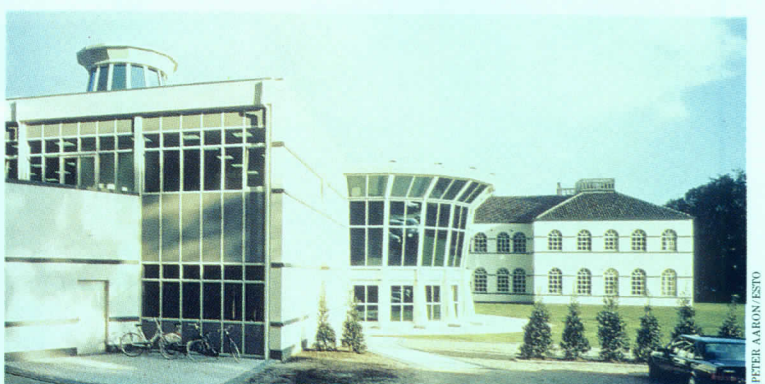
1. **Pinecote, Picayune, Mississippi;** Fay Jones + Maurice Jennings, Architects. The strict geometry of this pine pavilion, owned by the Crosby Arboretum, orders both structure and composition. The jury found it "flawlessly executed" and thought that it "stands on the edge of architecture leaning closely toward pure sculpture."

2. **Sea Ranch Employee Housing, Sea Ranch, California;** William Turnbull Associates, Architects. The architects say they based the design of the housing com-

plex on the vernacular style of California's North Coast, using buildings and trees to create outdoor rooms. "Humble yet self-assured," in the jury's opinion, "this project lends a quiet dignity to the spectrum of social housing."

3. **First Interstate Bank Tower at Fountain Place, Dallas;** Henry N. Cobb, Pei Cobb Freed & Partners, Architects. Called "a chameleon of a building" and "a fascinating piece of urban sculpture" by the jury, the office building is the first phase of a five-acre development on one edge of

At a new annual session titled Accent on Architecture, celebrated in Washington, D. C., on February 22, the American Institute of Architects bestowed 19 Honor Awards for design excellence.



the city's CBD. The next phase calls for an identical 60-floor tower turned at a right angle to this one.

4. Observatory House, San Diego, California; Davids Killory, Architects. Despite the architects' statement that this small library addition to a house in nonliterary Southern California "celebrates a tradition of intellectual pleasure usually assumed to belong somewhere else," the jurors found it "carefully scaled and provocatively contextual" and thought that it "exudes extraordinary power."

5. Lake Harriet Band Shell, Minneapolis; Frederick Bentz/Milo Thompson/Robert Rietow, Inc., Architects [RECORD, November 1989, pages 92-93]. In a lakefront park used for physical recreation as well as concerts, the neighbors asked that the band shell emulate "the romantic style of past park structures," and the architects devised a glass backdrop that transforms lake into stage set. The jury found the result "comforting, inviting, and familiar."

6. House, Westchester County, New York; Richard Meier & Partners, Archi-

itects. Placing the house on the highest point of its rural site, Meier juxtaposed rectilinear masonry private sectors with curvilinear metal and glass public areas. The jury appreciated the way "hard-edged squares and rectangles collide with soft curvaceous forms" and called the house "a tour de force of precision and balance."

7. Recreational Sports Facility, University of California, Berkeley; ELS/Elbasani & Logan Architects [RECORD, September 1985, pages 90-94]. In addition to providing a gym, a fieldhouse, exercise rooms, hand-



10

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11

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12

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13

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14

JONATHAN HILLIER

ball courts, and a parking garage, the building had to mediate town and gown at one corner of the campus. Moreover, the jury felt, "a great interior street provides a spontaneous and dynamic setting for university recreation."

8. Clos Pegase Winery, Calistoga, California; Michael Graves, Architect. The building combines public and private functions, its central portico leading on one side to the winery, on the other to tasting rooms, while the owner's house is on axis with the entrance. The jury said that "the wine and these daring buildings are a powerful esthetic package, stimulating all of the senses."

9. International Headquarters, Mexx International, B. V., Voorschoten, The Netherlands; Robert A. M. Stern Architects [RECORD, May 1988, pages 106-113]. The architect endeavored "to create a retrospective history" for this combination of a 19th-century silver factory and modern

offices and studios. "A feat of architectural acrobatics," in the jury's opinion, "the new addition looks as though it evolved naturally."

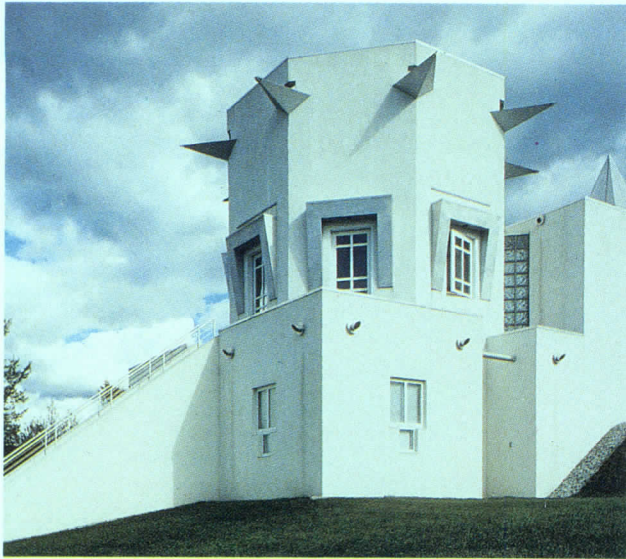
10. Corporate Headquarters, Becton Dickinson and Company, Franklin Lakes, New Jersey; Kallmann McKinnell & Wood Architects, Inc. [RECORD, January 1988, pages 62-73]. For this corporate headquarters, the designer intended "a quiet intervention into the landscape" and "an ambience of quiet and restrained dignity." The resulting complex, said the jury, is "beautifully detailed and carefully crafted" and resembles "more a university campus than a corporate center."

11. Schnabel House, Los Angeles; Frank O. Gehry & Associates, Architects. The architect sought to give the house's many programmatic elements specific architectural character by varying surface materials—copper, stucco, and concrete. "Bold and idiosyncratic, this Los Angeles house

is the essence of originality," in the jury's view.

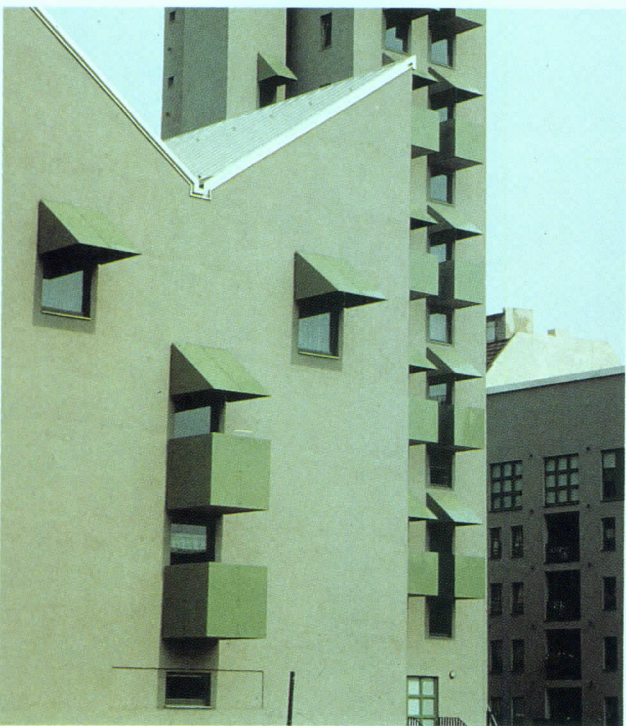
12. Light of the World Catholic Church, Littleton, Colorado; Hoover Berg Desmond, Architects. For a parish church in a new suburb, the architects chose to exemplify basic Early Christian values with such traditional forms as basilica and tower and with such modest contemporary materials as drywall and laminated timber. "With its humble strength," said the jury, "this church embodies the spirit and thought of Catholicism."

13. Sun Valley House, Sun Valley, Idaho; Arne Bystrom Architect and Ian MacKinley, Architects. In addition to historic timber structures and modern solar technology, Bystrom says, the thinking of James Gleick, author of *Chaos*, and his views on the perception of scale ordered the design. The jury called the design, "a way station between the past and the future" and "proof that technology can have a soul."



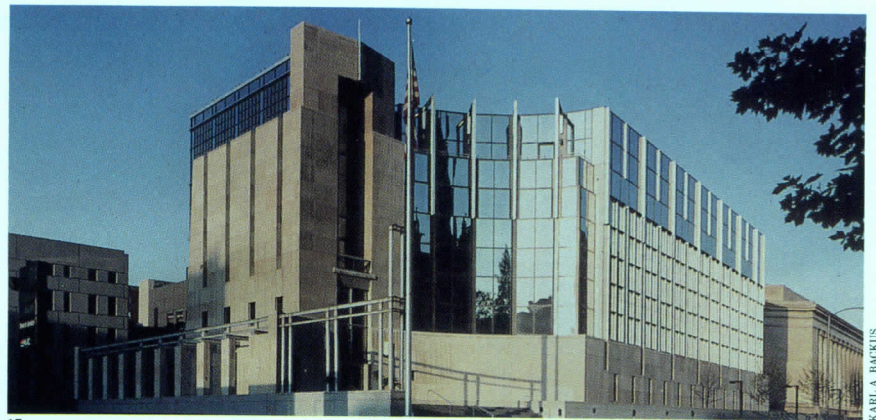
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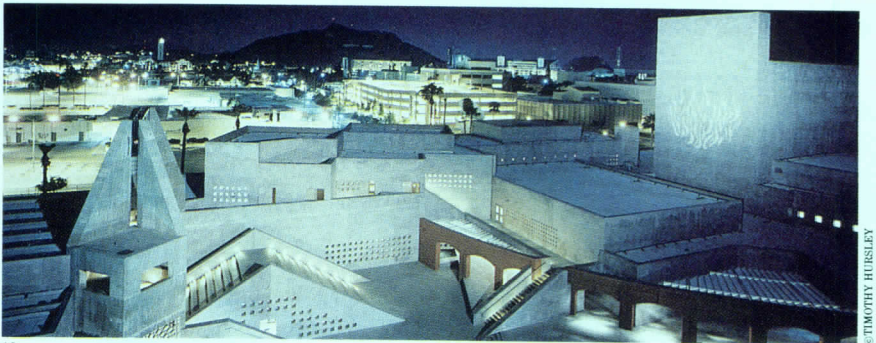
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GREGORY MURPHEY



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TIMOTHY HURSELEY

14. Trinity School, Atlanta; Lord, Aeck & Sargent, Architects [RECORD, August 1988, pages 94-99]. Besides providing space for the arts, the library, and play, the school provides what the architects call "Kundergotic entertainment," offering lessons in architectural structures and styles. The jurors found the school "uninhibited, energetic, and egocentric," and likened it to "a giant three-dimensional toy."

15. The House at Tanglewood, West Stockbridge, Massachusetts; Schwartz/Silver Architects [RECORD, Mid-April 1987, pages 114-121]. Designed for a professional violinist, the octagonal stucco house is a conscious effort to fuse the ancient and the futuristic. Rather poetically, the jury thought of the house as "a watch tower guarding the serenity of the music conservatory inside from the distractions of the outside world."

16. Wohnanlage mit Atelierturm, Berlin; John Hejduk, Architect [RECORD, July 1989,

pages 92-95]. Housing built as part of Berlin's International Building Exposition, the project includes a tower of artists' lofts flanked by two blocks of conventional apartments. Writing before the recent European thaw, the jury said, "A subtle reference to the nearby Berlin Wall, the tower contains duplex apartments that demonstrate that low cost does not mean low on amenities or design."

17. Software Engineering Institute, Carnegie-Mellon University, Pittsburgh; Bohlin Powell Larkin Cywinski and Burt Hill Kosar Rittelman Associates, Architects [RECORD, March 1989, pages 78-83]. At this R&D center, the architects wanted to integrate the building's technical demands with the human needs of its users. Beyond its "well conceived" interior, however, the jury thought that "the glass and granite exterior acts as a kind of architectural bridge linking the institute with its Gothic and Neoclassical neighbors."

18. Capital High School, Santa Fe, New Mexico; Perkins & Will, Architects [RECORD, September 1988, page 101]. Building along an arroyo on a desert site, the architects drew on the Southwestern Territorial style, which combined adobe and Neoclassical elements and was commonly used for official buildings. "Proud and dignified in stature, this school also has a rough-and-tumble quality that welcomes the students and the community," commented the jury.

19. Nelson Fine Arts Center, Arizona State University, Tempe, Arizona; Antoine Predock, Architect. Envisioned by Predock as "a processional, almost labyrinthine building," the center links several buildings and outdoor plazas to unify previously scattered arts programs within a single complex entity. Finding the center "mysterious and intriguing" as well as "romantic and colorful," the jury said that "this vibrant city of art awakens imagination and stirs the senses."



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GLITZ OR QUALITY: WHAT DO DEVELOPERS WANT?

Architects who have worked extensively with developers talk about how far current developer interest in design has gone.

Now that design has evolved into a nuts-and-bolts component of today's developer strategy, how do the architects and developers who have managed to benefit feel about all this, and how have they managed to produce more "salable" products?

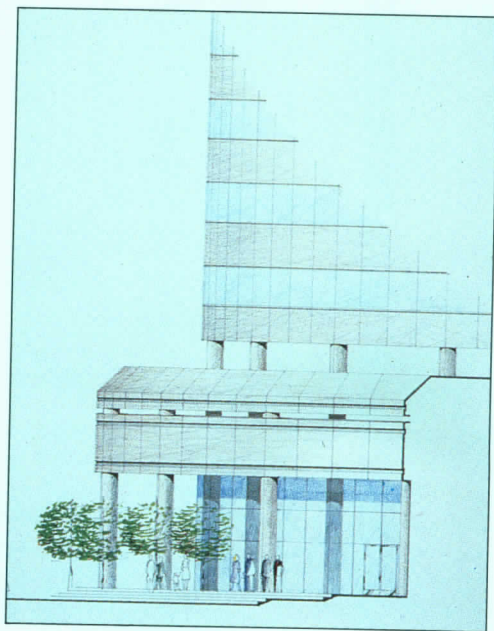
Design as the new bottom line

Cesar Pelli puts his success in this area succinctly: "The bottom line has been redefined." It has, in part at least, "shifted to esthetics."

"A lot of people have decided that good design is good for their pocketbook," seconds Laurin B. Askew, Jr., vice president and director of design for developer The Rouse Company. Rouse doesn't go in much for buildings that are instantly identifiable as the product of a particularly fashionable architect. But the company's long-time success lends credence to the basic credo that "good design sells."

Askew says good design means different things to different developers, but "what we attempt to do is to come up with what we consider a quality place, an environment that makes you feel good. It doesn't necessarily mean expensive materials and construction. Rather, it has to do with how the buildings function and feel. It's not really quantifiable," he adds. "I don't think we spend any more time on design than the next guy." But Rouse's people spend a lot of time worrying about details, "from light fixtures to floor tile to handrails."

Hellmuth, Obata & Kassabaum chairman, Gyo Obata, argues that "a lot of developers still do not understand that, in the long run, the value of a high-quality building is much more than that of a mediocre one." Curiously, this big-firm architect describes the process of educating clients as one akin to that followed by many small firms [RECORD, February 1990, pages 52-53]: "The key to this collaborative process is communication. Once a developer chooses a good architect, then both have to be very communicative with each other and have to absolutely trust each other's feelings and intuitions. The architect needs to understand the developer's economic problems, the kind of building he is trying to create, and the kind of client he is trying to bring in."



HOK's Lake Merritt Plaza. "A honey for developers that's not shot with the money gun," says the architect.

The developer as the new Medici

Some architects argue that it is the speculative developers, rather than corporate clients, who are likely to be in the forefront nowadays with innovative, attention-getting design—which, some point out, is not necessarily synonymous with *good* design.

"At the present time, developers are the most creative and innovative force in the building industry," says HOK's Jerry Sincoff. "Design and design names sell buildings," seconds Philip Briggs, co-founder of and partner in architects ADD, Inc. "You hire a name architect to attract attention." Briggs, who teaches at the Harvard School of Design, says: "I may not agree with Donald Trump's preferences, but damned if the glitz isn't what gets people in."

Still, as a general rule, "the speculative developer won't go beyond what the market will bear," adds Briggs. "If a building is to rent for \$22 per square foot, the architect has to work within the budget generated by that even while producing buildings that attract attention." He implies there is something more to this than market logic. "Developers want to drive along the highway and say 'that's my building with the green tower and the curves.'"

ADD Inc. does all the design work for Allied Equipment Corp. and Wang. To prove the point that developers are more adventurous, ADD's buildings built for corporations' own use tend to be low-frills. But when the same corporations go to lease space in a spec building, they usually go for much-higher amenity—a phenomenon that Allied's president Ken Olson refers to as "quality creep," according to Briggs. For corporations' own buildings, "investors want their money to go into research and development. Even IBM tends to think that way, except for corporate headquarters," he adds. "They tend to build more generic buildings."

Esthetic vs. practical innovation

Not all architects believe that design needs to be attention-grabbing to be marketable. They emphasize different attributes when they ruminate on the meaning of the term good design and what it may mean to clients. Larry A. Sauer, a senior vice president of HOK/Washington, D. C., who agrees that good design is good business, notes: "A lot of developers are looking to make a contribution to the environment. This doesn't just mean a handsome building but how it interacts with the environment. The younger developers are more involved than the more established ones."

HOK believes that its brand of low-key, unobtrusive design approach appeals to developers. "Some of our buildings are not screaming for attention," says William Valentine, HOK/San Francisco's senior vice president and design director. He cites the recent 27-story, 460,000-square-foot Lake Merritt Plaza in Oakland, Calif. (elevation above and photo, following page), as one approach that's "a honey for developers"—in this case, Transpacific Development Company. He calls the building "our best example" of the firm's particular philosophy of design quality. "It's a very simple building, a very inexpensive building within the economic reach of a broad spectrum of users. It's not been shot with a money gun. In a very competitive market," he says, "every single piece" has to be right: "If you do your homework correctly, the look will come out of how these things hang together." He points out how lobbies tend to be lifeless. "We have been

trying to put the right kind of activities on the ground floor to get the lobby to be alive and create a street life there."

There are other innovative features to this straightforward building. Most important is the solution of the parking issue in a building that has quasi-suburban parking requirements despite a downtown location. Instead of stacking several parking decks below grade underneath the building or putting up an adjacent parking garage—"a de-facto 'hole' in the city fabric," says Valentine—HOK put one level underneath, two behind the lobby and two above the lobby, allowing the street frontages to be occupied by pedestrian-oriented uses.

And, because offices start at the fifth floor instead of the first, the lowest office floors have good views and all the floors have a higher value per square foot.

Cesar Pelli sees tenants demanding and paying for good design, which in turn makes speculative developers responsive and receptive. He relates this to the recent high prices paid for artworks. There is a greater interest in architecture and therefore "more discrimination between good and bad."

The cost of quality

The cost of good and bad design can be the same, Pelli argues, and developers know that. "But, clearly, we do not do the cheapest of buildings." While he thinks that his firm is in a "unique and favorable position" in that developers and other clients come to him wanting good design, he observes: "This is not just a tiny group. The group of good architects has grown enormously," implying a growing appreciation.

Pelli seems hard-pressed when asked to estimate how much more developers are willing to pay for that ineffable something called good quality. Sometimes it costs nothing, he says, and some buildings have been built for "several-hundred percent more" than what an imaginary rock-bottom price might have been—not necessarily just because of concern for quality, but also because of the building's presumed public-relations impact, he says. On average, he guesses, good quality adds perhaps 10 percent to the cost of a building.

Pelli's assessment seems to be in the ballpark. A principal in another prominent architecture firm, who prefers to remain anonymous, guesses that good architecture or a name architect costs about 15 percent "more than normal, whatever normal is."

John M. Y. Lee, principal partner in the New York firm of Edward Larrabee Barnes, agrees that "without question, a good number of developers pay more for name architects and will put even more money into buildings because it generates more rent." He names New York developer George Klein of Park Tower Realty and Mortimer Zuckerman's Boston Properties

Arteries are lined with very special buildings. They aren't just boxes anymore—but they're not all good architecture.



more, a small atrium perhaps. The developers saw this was selling, and competition got very fierce in the suburbs." He concedes that some of the results may have turned out more flashy than good architecture, but defends his own record. Just recently, his firm won an award from the National Concrete Institute.

"Basically, the suburban office building is a fairly simple design in terms of how it functions," Briggs observes. "There's sort of a formula. After that it becomes the visual image from the highway that counts." Briggs recalls that, when he opened his Washington office, he was dismayed with what was being built. Today, the arteries feeding into the cities—Route 128 in Boston, Route 270 in Washington—are lined with very special buildings. "Just go out on the Dulles Expressway. There aren't just boxes any more—but they're not all good architecture." With its 20-story-plus freestanding columns, Tysons Corner, just outside the District of Columbia in Virginia, is "one of the ugliest buildings around," he says. But the developer hired a name architect to attract attention. Nevertheless, he thinks "developers have developed more good architecture in the suburbs than anything else."

as among those who usually, or always, employ name architects as a guarantee of good design, but also as a marketing tool. "Good design—I'm not sure it's the right term to use," muses Lee; rather it's a matter of using a "well-established name architect." Presumably a developer could turn to a young eager architect and pay a lot less to come up with a good design, but it could be a "big risk." Success is the name of the game, and "name recognition has something to do with this," he says.

But how much more a developer is willing to spend on good design is difficult to ascertain even for the professionals, Lee finds: "Most developers won't even tell us how much their buildings cost," he says. "It's very hard to tell. It's all tied into the total package."

Only a downtown issue?

One architectural critic thinks that the whole issue of good vs. bad design for the spec market is really only a downtown issue. "Good design is only in the city," he opines. A concern for the stark economic bottom line is "typical of suburban office parks," he believes.

ADD Inc.'s Briggs, who does much of his work in the suburbs, disagrees: "There are just as many junk buildings downtown as in the suburbs." The suburban builders, including Boston Properties for which he does work, also know that design sells, he believes. "What people look for in the suburbs is a little of the downtown buildings."

Briggs says that, when he started doing office buildings in Boston's suburbs for his first clients in the mid-'70s, he like everybody else was doing "straightforward boxes." But then, "we added more and

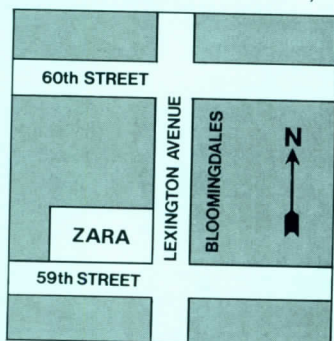
Henry Cobb, partner in Pei Cobb Freed & Partners, who has worked with developers for 40 years, says: "It's been perfectly obvious that in the past decade there has been more attention paid by developers to so-called high-style architecture." By and large he thinks the number of developers interested in architecture is "quite small." But at the same time, the number of developers "trying to exploit current trends in architecture for their own benefits is certainly increasing," he says.

Cobb says he has been "fortunate in working with developers who are interested in good architecture," foremost among them William Zeckendorf, father of the current head of the firm of that name. With early landmark projects such as Kip's Bay Plaza in New York and the Mile-High Center in Denver, "he will always be at the top of my list," Cobb says. "He was probably the greatest figure in development in our time. Our firm began as Zeckendorf's architect in the '50s. We were actually the in-house architects before we became I. M. Pei & Partners." Other major developers he holds in great esteem are Gerald Hines, George Klein, and McGuire Thomas Partners. "I am perfectly well aware that there is a whole population of developers who never want to hire us and whom we never want to work for, but I have always enjoyed work in the development field."

What of the future? HOK's Obata notes that recent tax-law changes have knocked out many fly-by-night, low-budget developers. "We're in for a time of quality building," he predicts. □

The next time you're at Bloomingdale's in New York, take a walk across the street.

"There's a marvelous new store in town called *Zara*, and it's just diagonally across the avenue from Bloomingdale's at 59th and Lexington. *Zara* is a "fast fashion" (they change inventory completely every ten days) retail chain that started in Spain a few years ago, and has exploded to more than a hundred stores all across Europe. The new New York store is their flagship in the States, and it's already a success. The range of fashion styles on each of the store's three levels, the bright palette of colors, and the electric sense that there's something new and exciting happening every day, all make it a fascinating, if hectic place to visit when you're in the city. Of course, if you're the guy who supplied the store's slate surfaces, they might let you take a break and sit down in one of the window areas.



That's me in the picture with the dummy. I'm sitting.

"And what I'm sitting on is Norwegian Black Lace Slate. (Isn't that a great name?) It's from the tiny village of Otta in central Norway, and we used it in two different finishes at *Zara*. We covered the platforms of the window display areas, one of which you see here under me, with a natural cleft surface. It's hand-split, of course, and has the just slightly uneven surface texture you expect in



natural slate. But for the countertop surface of the cash/wrap desk (the busiest place in the store), we cut and smoothed an almost polished-looking finish. What happens on that countertop is that the Norwegian Black Lace catches and reflects light at different levels, so that from some angles the surface almost seems to undulate, and I've seen customers at the desk rubbing their fingers across it, surprised to find that it's dead flat.

If you have ideas, we have lots more Norwegian slate. Vermont, too.

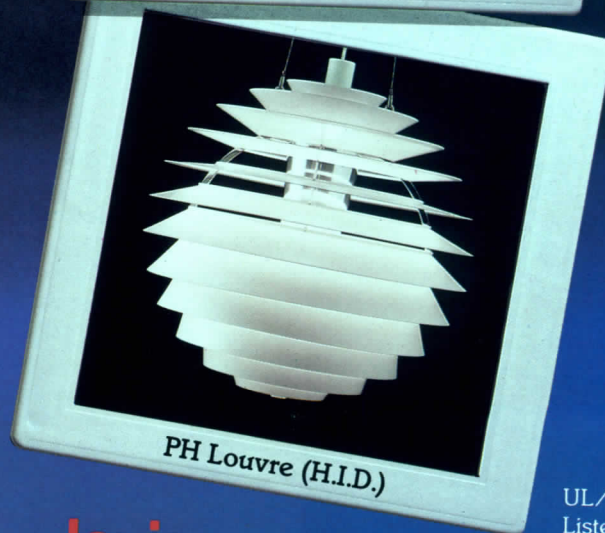
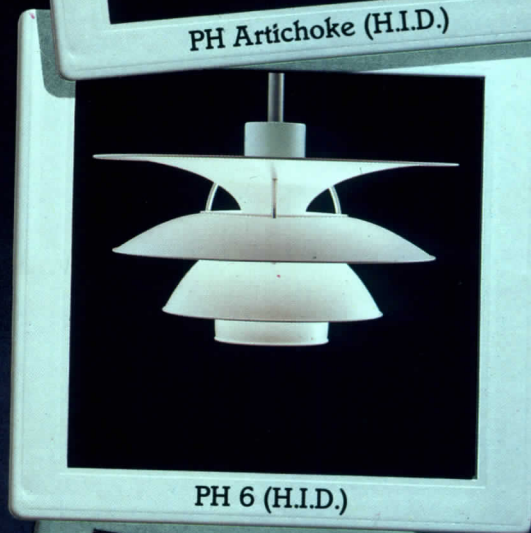
"Even if you're not interested in supercharged feminine fashion, the muted minimalism of *ISD's* excellent design of *Zara's* three-level retail space is well worth a visit next time you're in New York. While you're there, touch and feel the slate, and see how well it works in *ISD's* lighting/texture concept. We're proud of our contribution. We're looking for more interesting work we can be proud of. If you're considering slate for a quality custom project, don't worry about budget until you've talked to me, even if you're still just in the talking stage. That's fine, I love to talk. Try me: call me at 1-800-343-1900."

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THE SHORT-TERM SQUEEZE ON MIDSIZE BUILDERS

Even when loan rates come down, new lending regulations will force small-to-midsized developers into a money scramble for awhile.

For some time, monthly statistics on economic growth have been erratic, with many indices up one month and down the next. This vacillating pattern signals an economy that is losing momentum. To break the slide and avoid a recession, interest rates will soon have to fall sharply [RECORD, January 1990, page 60].

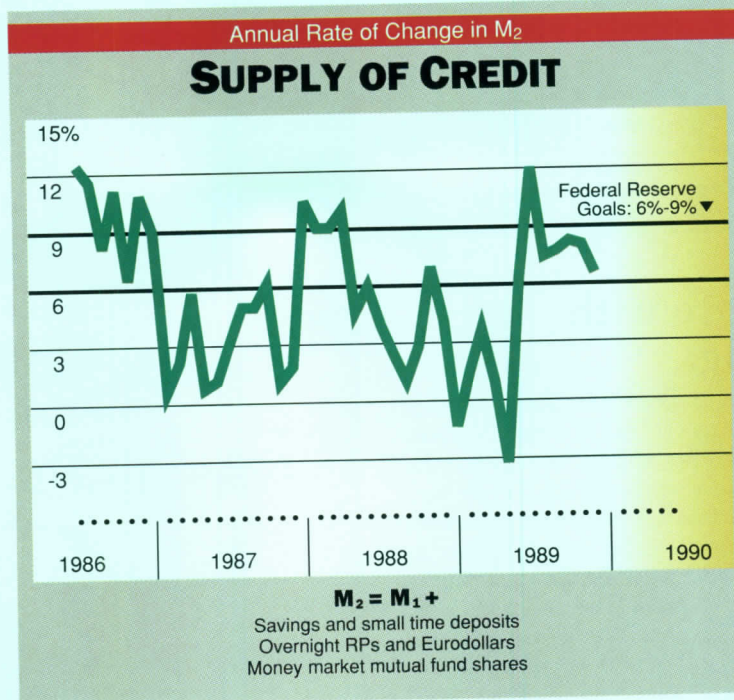
With the rate of economic activity slowing, the Federal Reserve was expected to pick up the pace of monetary ease this quarter. This action would lower interest rates and help revive the economy next quarter.

Instead, interest rates so far this year have inched higher. Behind that rise is the dilemma the Reserve faces in reversing the deceleration of growth and extending this expansion.

Underlying core inflation (as measured by wage and salary increases) has remained stubbornly in the 4.5- to 5-percent range despite the fourth quarter 1989 slowdown in economic activity. Indeed, it will take several more quarters of less-than-2-percent real economic gains to nudge core inflation below the 4-percent level.

Meanwhile, financial markets will react negatively any time inflation measures jump, as they did at the end of 1989 and in early 1990. These particular hikes reflected temporary factors, such as extreme cold weather throughout much of the United States, which damaged crops and drove up fuel prices for a few weeks. Nevertheless, investors, spooked by fears of higher inflation, sold off stocks and dropped bond prices in January. Quickly, the Federal Reserve backed off further relaxation of monetary policy to reassure that it is still committed to checking inflation.

Once the spike in inflation proves to be transitory, but the deceleration in growth does not, the Federal Reserve will renew easing of monetary policy. Interest rates all along the yield curve will decline. Mortgage rates, which in late January were near 10 percent, will edge downward toward 9 percent this spring.



There is a significant pent-up demand for house ownership among the large group of households in the first-time house-buying age group, ages 28 to 42 years. As mortgage rates dip, many of those people will aggressively begin buying houses.

Normally, their purchases would spur single-family building, offering a much-needed boost to economic activity. This time, however, a structural problem in the real-estate-finance market may limit the availability of construction loans, moderating any rise in single-family starts.

Two types of financial institutions, savings-and-loans associations and commercial banks, dominate construction lending. Combined, these institutions hold more than 90 percent of all single-family and nonresidential construction loans and nearly 70 percent of all multifamily loans.

Currently, both financial institutions are adapting their capital and investment strategies to much more stringent capital requirements. Besides having to increase the amount of capital held against total assets, these institutions are realigning their lending businesses to meet newly imposed risk-based capital regulations. Among

other things, these standards require commercial banks and savings associations to set aside more capital for their holdings of construction loans than for the same volume of single-family mortgages.

In normal times, these institutions would be able to adjust to these changes in due course. But these are not normal times.

Even before the passage of the Financial Institution Reform, Recovery, and Enforcement Act in August 1989 mandating tougher capital-to-asset ratios for savings associations, many were already short of capital. The new requirements have forced even more to trim lending and sell assets.

On top of that, FIRREA slashed the maximum amount lent to one borrower. As a result of these new rules, many have been recently alerting

builders across the country of sizable cutbacks in new construction loans.

Previously, some of this shortfall might have been made up in increased construction lending at commercial banks. But these institutions are also dealing with more restrictive capital standards. To husband their capital, they will concentrate their lending on the bigger projects. Consequently, smaller builders and developers will have to scramble for construction funds this spring and summer.

As the scarcity of construction money becomes evident, interest rates on these loans will become very sticky, even as other interest rates are falling. Eventually, the higher rates on such loans will attract new sources of funds. But that process will take time because other investors will have to be educated about the risks and rewards of construction lending.

Without a plentiful supply of building money, single-family housing starts, which were expected to rebound strongly this spring, could climb at a much slower pace throughout the second and third quarters. In turn, economic growth, lacking this spur, could tumble even closer to a recession this summer. □

STOW IT DON'T THROW IT

For the sake of posterity and peace of mind, construction documents, design drawings, and records need to be safely stored and accessible.

Architects seem to be notoriously complacent about record keeping. In a profession in which extraordinary amounts of complexity, change, and detail are involved, it is far easier to discard early schemes than to exert the additional energy and time needed to record and store the past.

It is, therefore, not surprising to note that archival materials in a great number of architectural offices are in pitiful condition. Successful designers have neither the inclination nor time to save materials, and many firms simply do not have the funds. Very often, materials get lost, rolled up, and stored without any system for recovery. Piled into a spare closet, subject to mold, vermin, harmful light, or water damage, valuable documents become faded and forgotten. Problems of retrieval become difficult, if not impossible.

The importance of keeping records and materials

Saving and organizing materials for their protection and reuse requires dedication, time, money, and space for storage. What, then, are the compelling reasons to commit costly resources to such an effort?

• *Serving repeat clientele.* A major portion of most successful practices is repeat clientele. Providing services to on-going clients creates a primary need for retention and retrieval of documentation. Previous work for a particular client becomes tantamount to the maintenance of that relationship. And competition for new projects with existing clients can be pursued when based upon past knowledge.

• *Liability protection.* Certainly protection against legal exposure provides the most obvious and strongest argument for prudent record keeping. Evidence of final documents as approved for construction, not only by clients, but also by government or regulatory agencies, provides a safeguard against copying or plagiarism, and legal protection in case of suit.

Christopher Noble, an attorney specializing in architecture and construction law at the Boston-based law firm Hill & Barlow, advises clients to survey the individual statutes of limitations and repose of those states in which the firm practices architecture to determine the period of time

during which record keeping is advisable.

"There are several factors to consider in establishing a storage and disposal program for documents," notes Noble. "Most claims are filed within the first five years after substantial completion of a project; however, a firm may be called upon to defend a design decision years later.

"If a suit happens," he adds, "there are certain records that are more useful than others. For example, the working set of final plans and specifications, marked up for field conditions, is likely to be critical. Meeting notes and correspondence will be relevant in a large number of claims, especially process-oriented claims involving issues such as delays and cost overruns. This kind of claim is likely to occur during or soon after construction. However, a firm should not consider disposal of any project files until after the expiration of the relevant statute of repose."

• *Your own reference.* The firm's own experience should be the foundation of a source of data upon which new and veteran staff members alike can draw. The abil-

ity to refer to sets of drawings with ease can expedite new projects. In using similar programs, details, materials, or building techniques, care must be taken to avoid repeating that which is later found to be unsuitable or incorrect.

• *Advancing the profession.* The architect has an obligation to preserve a record of the practice of architecture, if for no other reason than the saving of historical information about how the profession functions. Concern for the future demonstrates a responsibility to the profession and society at large to preserve what is good, to contribute to the advancement of knowledge, and promote worthwhile research in architecture and education.

The types of materials to preserve

The architectural records, drawings, and documentation that should be preserved depend upon the size, type, and significance of individual projects. A major civic building, for example, may have considerably more material worthy of future study than a house. In general, items worthy of preservation may include conceptual drawings, program information, preliminary sketches, schematic, design-development, working, and shop drawings, specifications, supplemental drawings, construction records, photographic documentation, presentation materials, photographs, slides, renderings, models or photographs of models, and approved sets of drawings.

Final approval sets are usually kept at the job site during construction and turned over to the client for his permanent files. However, the architect is often called upon for the information in those sets because the client has lost track of them. Keeping a record of the final information or a copy of the letter of transmittal may prove beneficial in such cases. Certainly, during the progress of work, it behooves the architect to save approvals, cost data, sketches, change orders, and other administrative documentation.

Ways to preserve records that work

Each architectural office needs to establish a system of recording what has been filed (identified by project number and

ILLUSTRATION BY WILLIAM T. GIBBONS



building name), and how and where the material is stored. At the end of each phase of work, and certainly at the end of a project, the project manager/architect should have the responsibility of properly sorting material, discarding extraneous or repetitious information, and storing those items deemed worthy of saving. This should include job and correspondence files and such matter as program documents, administrative materials, cost files, and approvals sorted by categories and identified for easy access and retrieval.

Generally, all design sketches and presentation materials (i.e., those not representing complete or final information, and design studies, which are, by nature, different in use) should be separated from other material and kept in flat files or rolled in tubes. Final tracings and working drawings are usually stored in tubes.

All material for permanent storage should be sensibly sorted and placed in acid-free containers. Standard cardboard boxes that are acid-free and economical are readily available for storage of correspondence and folded drawings. Tubes for rolled drawings are in less demand and, therefore, somewhat more costly, if acid-free. Wrapping rolled drawings in acid-free tissue before putting them in tubes is an economical way to protect them.

The location of storage becomes a critical factor in preserving archives. The storage area needs to be free of environmental conditions detrimental to paper conservation and have proper humidity, temperature, light, and security. Whether storage is in the office, a warehouse, or someone's home, below-grade space that is subject to flooding should be avoided.

One of my early experiences involved working in an architectural office that was located along a riverbed. Storage was relegated to the basement of the building by necessity. Although customized galvanized metal tubes were made to address the firm's concern about dampness, they were not watertight and the storage was potentially vulnerable to flood damage.

In another instance, The Stubbins Associates was compelled to temporarily store materials in an area half a level below grade which became flooded. On the advice of restoration experts at Harvard University's libraries and of private consultants, I laid every drawing flat, allowing it to air dry. Each book was stood on end with each page opened to dry. Consuming a full two weeks' time, we were able to rescue the priceless history of the firm. Ninety-five percent of the material was saved and preserved in usable fashion, some of which was later used in a retrospective exhibition at Harvard University's Graduate School of Design, which later traveled to the AIA headquarters. It was interesting to note that mylars with tape did not survive. Also, certain photographic materials were vulner-

able to water damage. Most of the design sketches were not seriously affected, even though under water overnight. Some case-seine renderings survived, some did not. In certain cases, dried materials were pressed and ironed.

Storage and retrieval techniques

Currently, I am involved in the transfer of the Stubbins papers to the permanent collection of the Loeb Library at Harvard University's Graduate School of Design. The archives include correspondence, plans, drawings, sketchbooks, photographs, color transparencies, artwork, and memorabilia spanning more than 50 years of Stubbins' professional practice. Over 600 boxes of material have been pulled from a warehouse and placed into acid-free boxes. A master index of the contents of each box has been prepared, listing the name of each project and its project number. A computerized bar code has been assigned to each box and each project, placed on both the outside and inside of the box.

The success of the system relies upon one individual who consistently performs the archival tasks.

These codes are now on-line at Harvard University. Although this lengthy and detailed process represents the state-of-the-art in archival repository, it is an instructive lesson in organizing and storing material in such a fashion so as to make retrieval easy and accessible.

The actual method of record keeping should be designed by each firm to suit its individual needs or specific type of practice. Major projects, such as a high-rise complex that spans 5-10 years in the office from contract signing to completion, requires up to as many as 20-30 boxes for storage. Identification, location, and cross-referencing of material becomes important in such instances.

The role of specific departments in the firm's record keeping is not as critical as the personality of the individual selected to assume the overall responsibility for the firm's archives. Such an individual needs to demonstrate an interest in detail, organization, and accurate record keeping. Like other similar endeavors, the success of the system relies upon one individual who consistently performs the necessary tasks and has the responsibility for it, rather than passing the job between a number of disinterested hands.

Preparing for the future

A stable practice of long standing with a reputation for sound work should preserve its history and experience. This can be of interest and value to future scholars, historians, and fellow practitioners. Certainly, the history of significant projects and the implications of their design and construction should be available for study. In these cases, thought should be given to the eventual disposition of the firm's work.

The question of what to do with the firm's archives should be addressed long before there is a major change in the organization or management of the firm, or before the sudden death of a principal may find an office unprepared. Most architects are aware of the unfortunate difficulties surrounding the preservation of Louis Kahn's archival papers. If material is worth saving over time, and worth organizing and maintaining, then it is also worth the planning for its eventual disposition. The decisions need to be made early because there is great risk of it being lost, destroyed, or dispersed and dissipated if heirs have no interest in preserving the history of the practice.

The retrospective exhibition marking the 50 years of Hugh Stubbins' practice precipitated early discussions on the safeguarding of the Stubbins archives, and the resulting decision to donate the architect's professional papers and drawings to Harvard University's Graduate School of Design, and, at the request of the AIA Foundation, documentation of one significant project in its entirety to its collection at the Octagon.

Once the decision is made to prepare for the disposition of an archival collection, the donor corporation may want to consider *not* attaching restrictions to the gift material. Copyrights on the materials in the collection should be transferred to the recipient, who will then be free to use the gift—thereby insuring its long-term usefulness. The donor should also make provisions for the recipient to dispose of or deaccession the material as need be. The appointment of an archival executor can be an effective measure for protecting and preserving the integrity of the collection. As visionary as the profession is, architects cannot predict the future, only prepare for it wisely. □

Mr. Westlake is senior vice president and a principal of The Stubbins Associates, Inc. He has responsibility for the preservation of the firm's archives and their transfer to Harvard University's Graduate School of Design and the AIA Foundation's Octagon. His personal collection of 18th- and 19th-century manuscripts on early ship design for the United States Sailing Navy has furthered his interest in accurate transcription, documentation, and storage of valuable primary materials.

ARCHITECTURE ON DISPLAY

Mildred Friedman of the Walker Art Center has brought architectural exhibitions into the third dimension.

In recent years the Walker Art Center in Minneapolis has emerged as America's leading museum of design. While the Museum of Modern Art in New York has been pursuing various elusive "isms" and the Cooper-Hewitt has been in transition between directors, the Walker has been busy producing a series of exhibitions, publications, and conferences covering a remarkably wide range of topics. In the process, the Walker has taken architectural exhibits to a new dimension—the third.

Credit for much of this ambitious programming goes to Mildred Friedman, design curator and editor of the Walker's *Design Quarterly* for the past two decades. But unfortunately for the Walker, "Mickey," as she is known to colleagues and friends, and her husband Martin, the museum's director, have announced plans to retire in November.

Mildred Friedman came to the Walker with training in both design and education—a varied background that has clearly influenced her current mission of presenting avant-garde subject matter in a manner that appeals to popular audiences. She was educated at University of California, Los Angeles, in design and art history. Friedman began her professional career teaching design at L. A.'s City College, then came to Minneapolis as an in-house interior designer for the now-defunct architectural firm of Cerny Associates. Friedman's first association with the Walker was as a design consultant during construction of its celebrated building, designed by Edward Larrabee Barnes.

After assuming a permanent post at the Walker in 1969, Friedman immediately began expanding both the design exhibition program and the institution's magazine. Early exhibitions were on urban design, learning spaces, and the Herman Miller design process. Publication topics ranged from American Indian Art to Minnesota press photography. A breakthrough of

sorts for the Walker in terms of national recognition came with the organization of a blockbuster Picasso show in 1980. But it was with a series of architectural exhibits in the latter part of the decade that helped to solidify the Walker's growing reputation for innovation.

In 1982, the Walker launched another blockbuster, the first major exhibition on

has now become hallmark Walker style, visitors not only could look at the De Stijl esthetic, they could actually experience it.

Two 1986 exhibitions expanded on this concept. In "Tokyo: Form and Spirit," historic objects were displayed alongside three-dimensional environments inspired by rituals of daily life. Tadao Ando and Shiro Kuramata designed an exuberant "living space" that was built next to a replica of a traditional Japanese tea house.

Later that same year, the Walker unveiled the first full-scale exhibition of the work of Santa Monica-based Frank O. Gehry, much to the consternation of some local architects who felt home-town heroes were being neglected in favor of a far-out Southern California radical. Friedman, who spent three and a half years developing the exhibition, said of her controversial choice: "I felt that Gehry was someone who was breaking new ground, but was enormously aware of history... I think [he] has achieved a new way to see the world." In response, Friedman helped develop a new way of documenting his vision. Once again, three-dimensional constructions were commissioned for the exhibition: in this case, five volumetric objects containing models and drawings of actual Gehry works. Upon entering the full-scale shelters—some based on Gehry's beloved fish forms, others excerpts from recent projects—the visitor had an approximation of being inside the architect's own buildings. One critic called the exhibition "a notable work of architecture in itself."

Currently the Walker is in the midst of a three-year-long series of exhibitions called "Architecture Tomorrow," which features "young architects whose built works have demonstrated an originality and expressive means worthy of public focus." Friedman terms these shows "visionary, not retrospective. We're telling these young architects: Do something in an exhibition



Mildred Friedman, design curator of the Walker Art Center, shown in her most recent exhibition (page 49).

the De Stijl movement in some three decades. Like the movement itself, the exhibition was notable for its intermingling of art, graphics, furniture design, and architecture. More than 200 objects were displayed, including paintings, drawings, and models. Most significantly, the exhibition also included a reconstruction of Theo van Doesburg's Café Aubette cinema and dance hall and the studio of Piet Mondrian in Paris, plus other re-creations of significant spaces previously destroyed. In what

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Friedman terms these shows 'visionary, not retrospective. We're telling these young architects: Do something in an exhibition so that when Mrs. Jones walks into the gallery, she's going to learn something about architecture.'

so that when Mrs. Jones walks into the gallery, she's going to learn something about architecture. We tried to find people who were putting themselves out on the proverbial limb, coming up with new ideas." The architects were encouraged to eschew the typical museum fare of drawings and models in favor of full-scale constructions, to be built specially for the exhibition by the Walker's own highly skilled installation crew. (Inevitably drawings and models are included in the exhibitions to provide specific points of reference within the architects' oeuvre.)

The series opened in the spring of 1988 with a show on Franklin Israel of Los Angeles [RECORD, April 1989, page 66]. A second show mounted in the spring of 1989 focused on Thom Mayne and Michael Rotondi also of Los Angeles [RECORD, July 1989, page 65]. The most recent show in the series, on Tod Williams and Billie Tsien [see review, page 49], was especially popular, according to Friedman, because it showed new ways of using materials to achieve affordable housing. Closing out the series will be Stanley Saitowitz of San Francisco (spring 1990), Elizabeth Diller and Ricardo Scofidio of New York (fall 1990), and Steven Holl of New York (spring 1991).

Friedman will see the series through despite her retirement, and she remains firmly committed to the use of full-scale building elements in architectural exhibitions. "It's almost a disservice to architecture to show it in two dimensions," she says with characteristic firmness and conviction. "Most people simply can't read architectural drawings. Models help. But things that people can actually walk through and experience convey a sense of space and materials like nothing else."

Friedman acknowledges that inclusion of such elements limits the number of architectural exhibits that an institution can undertake; it also restricts their mobility. Many museums don't have the resources

or staff to deal with such a show, although Friedman claims the budget for each of her shows is modest.

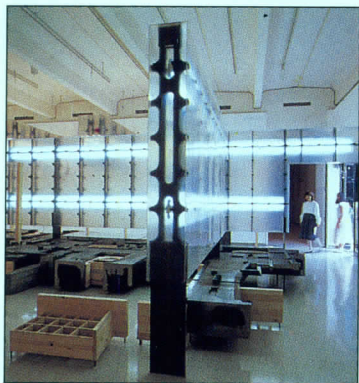
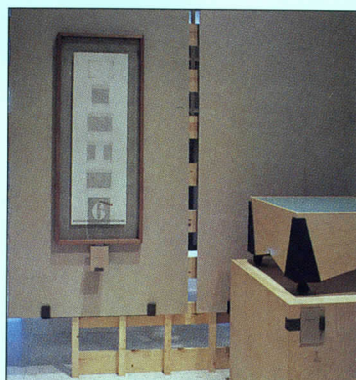
Despite their relative high cost and immobility, architectural exhibitions have proliferated in recent years in the nation's museums. Friedman attributes this to a steady growth in public interest in architecture, also evidenced in the growing

have brought an appreciation of architecture as an art form to public audiences in the Twin Cities and beyond," notes local architect Leonard Parker. "It's the only institution in our area that has done so." He continues: "Mickey has been a remarkable influence in the cause of good design. I don't always agree with her, but she has made a lot of good things happen." Says architect Milo Thompson: "She

has done exceptionally good things. Her programs have shown by example what really high standards are." Edward Barnes, the museum's architect, echoes the sentiment: The exhibitions, he says, "are less historical, and more forward-looking. Mickey takes a lot of risks, but I don't know of a failure." Thompson also points out that the Walker's design programs have had impact well beyond the Minneapolis-St. Paul metropolitan area. "A lot of people have gone on from the Walker to hold positions of influence elsewhere," including Richard Koshalek, who is now the director of L. A.'s Museum of Contemporary Art. He also points to the success of Walker exhibitions in their travels to other cities. "We're proud of the shows that have originated here and gone elsewhere."

Not surprisingly, Friedman has received her share of honors over her years at the Walker. She is an honorary member of AIA, has served on the AIA national honor awards jury, and is a regent of the American Architectural Foundation. She holds honorary doctorates from the Minneapolis College of Art and Design and Hamline University. Perhaps the most apt summation of Friedman's career to date was contained in her nomination to the AIA which said that "she has devoted much of her professional energy to making the public aware of the significance of architecture in their daily lives." When the Friedmans move to New York this fall, Mickey's presence will be sorely missed at the museum where she made an illustrious mark.

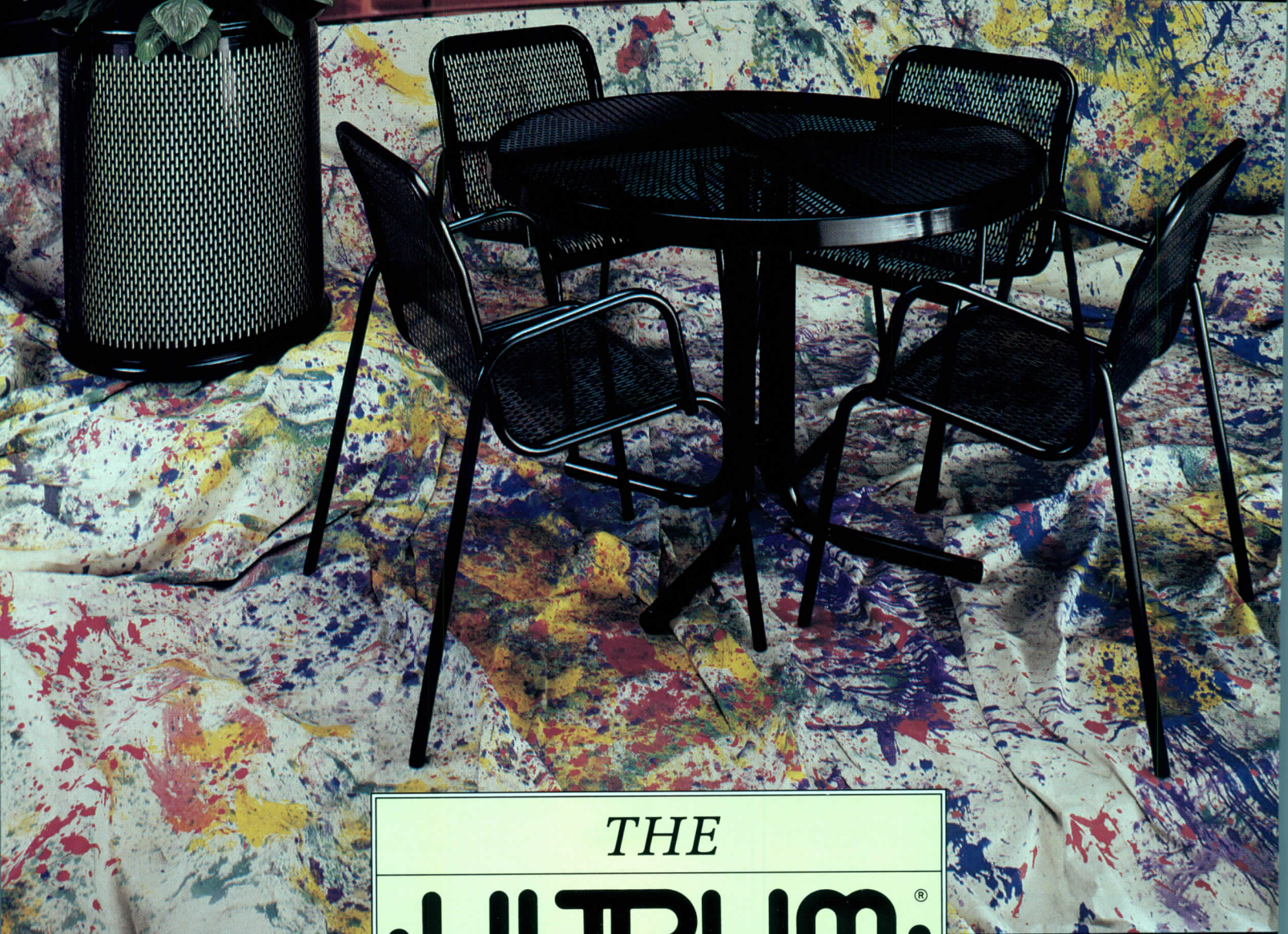
DONALD J. CANTY



Recent shows curated by Mildred Friedman have focused on (clockwise from top left): Frank O. Gehry, Franklin Israel, Morphosis, and the De Stijl movement.

number of architectural critics in the general media. She laments, however, the focus of architectural exhibitions on individuals and buildings. "The focus of the next 10 years has to be on urban places. We must learn better ways of building our cities and suburban areas. European models won't do. We have to develop our own."

Friedman has clearly participated in this effort. "The Walker's design programs



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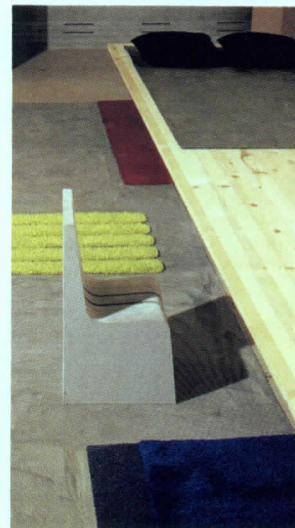
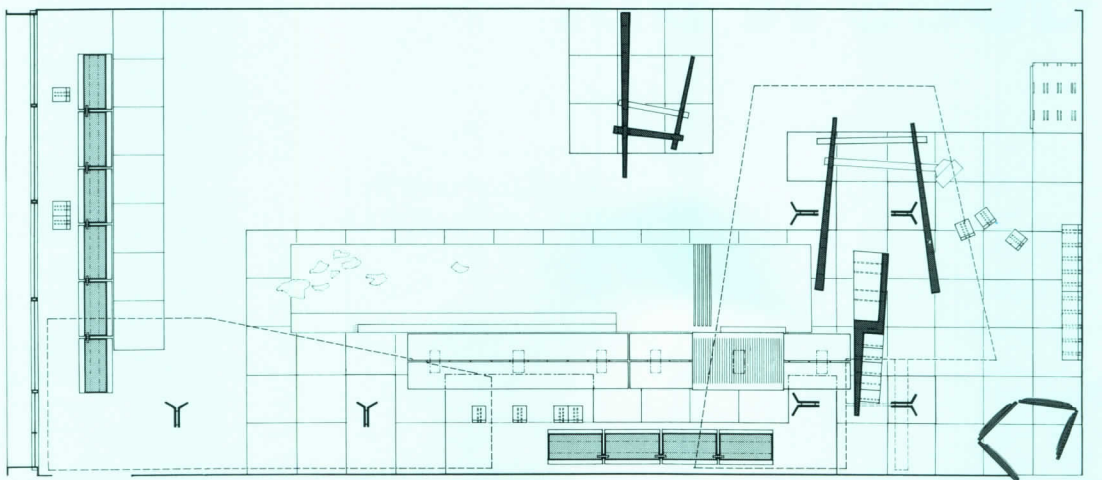
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AN INTERIM REPORT ON THE POSSIBLE FUTURE

Tod Williams and Billie Tsien present an ambitious but compromised vision of domestic life at the Walker Art Center.



©MICHAEL MORAN PHOTOS

The exhibition by Tod Williams and Billie Tsien, the third of six in the Walker Art Center's ambitious series showcasing younger firms, demonstrates the shortcomings of its theme, "Architecture Tomorrow." (It will move to the Whitney Museum, in New York, March 14 through May 18). Williams and Tsien see a more socially responsible and environmentally sound future, which is represented by components assembled from humble materials and industrial byproducts. Among these are winglike roof/wall panels made of foamed plastic tube reinforced by a compressed-paper tube (above left), a cellular resin and wood-pulp floor deck adapted from forklift pallets, chairs and space dividers made of Homasote (above right), all arranged to suggest a home life that is

open and communal (plan). Although the architects don't expect these ideas to be taken too literally, how they *are* to be taken is baffling. There is simply too large a gap between the objects as presented and what might actually be useful in low-cost construction. Like Wright, Williams and Tsien want to break open the box, but this bodes no social revolution.

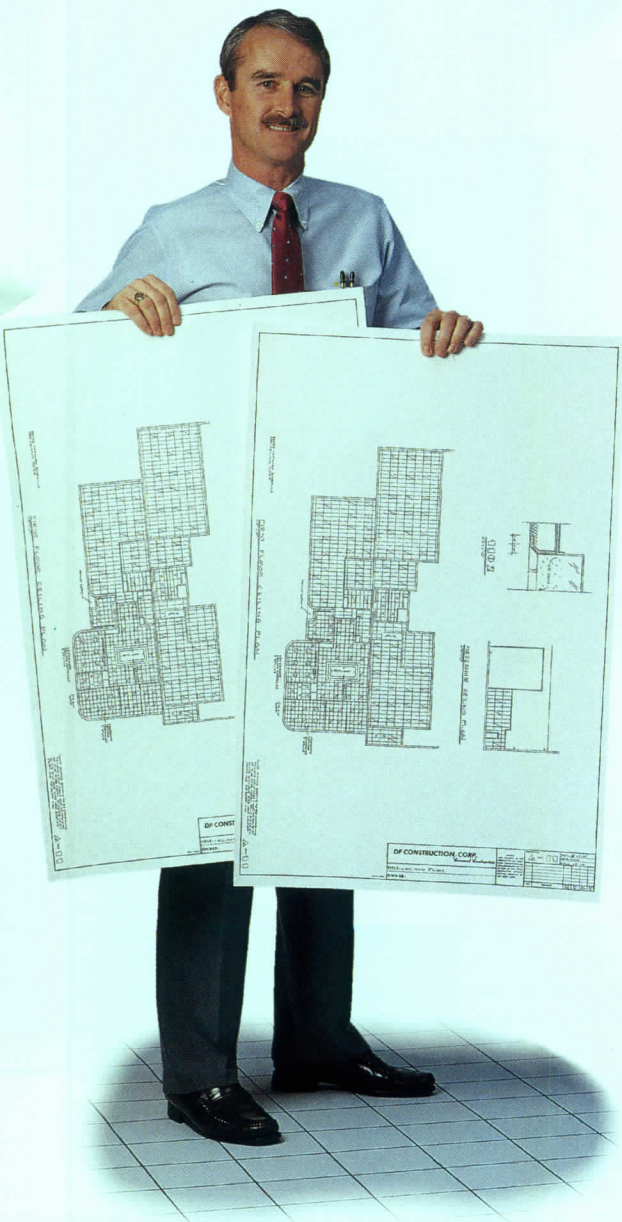
How did these thoughtful and skillful architects get into this dead end? It's fine to try to anticipate what lies ahead. It's just that a serious exploration of residential architecture's place in the future has certainly been compromised here, given a limited budget, the devotion of only one gallery to the show, and curator Mildred Friedman's penchant for encouraging exhibitions that are in themselves architec-

tural artifacts (Friedman is profiled on page 45.) Such "research" as the Walker encourages may not show the true strengths of the Williams/Tsien partnership. Tiny models tucked within the installation are the exhibit's most realistic—and fascinating—objects. Wedges of the roof/wall component are artfully jumbled together in suburban garage/storage sheds. In a model for a rural villa, a columnar structure supports an elegiac roof of sinew and membrane.

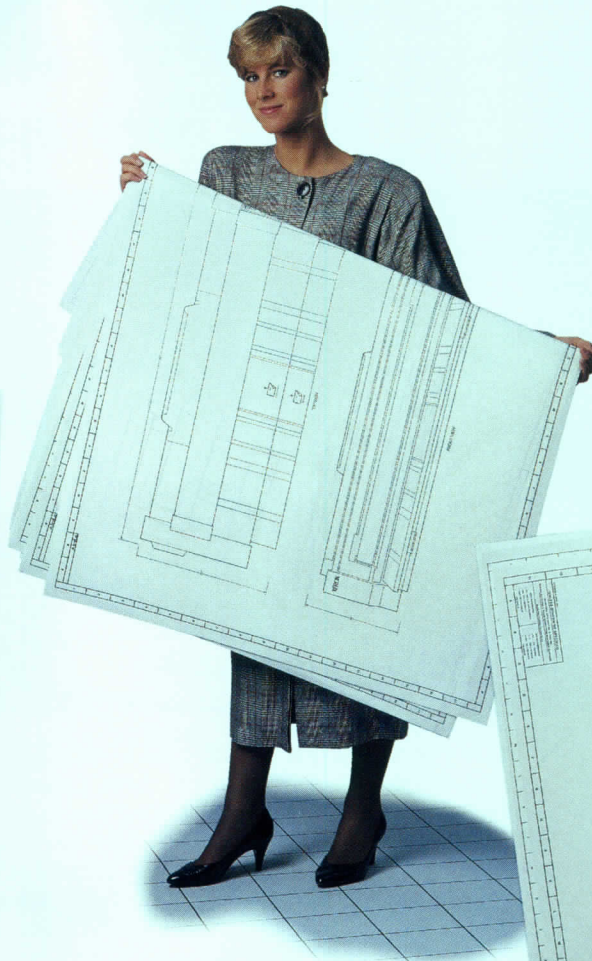
When the show moves to space the architects themselves have designed—the Whitney Museum's branch in lower Manhattan [RECORD INTERIORS, Mid-September 1988, pages 114-117]—visitors will be able to judge for themselves which has a future, the speculative or the real. **J. S. R.**

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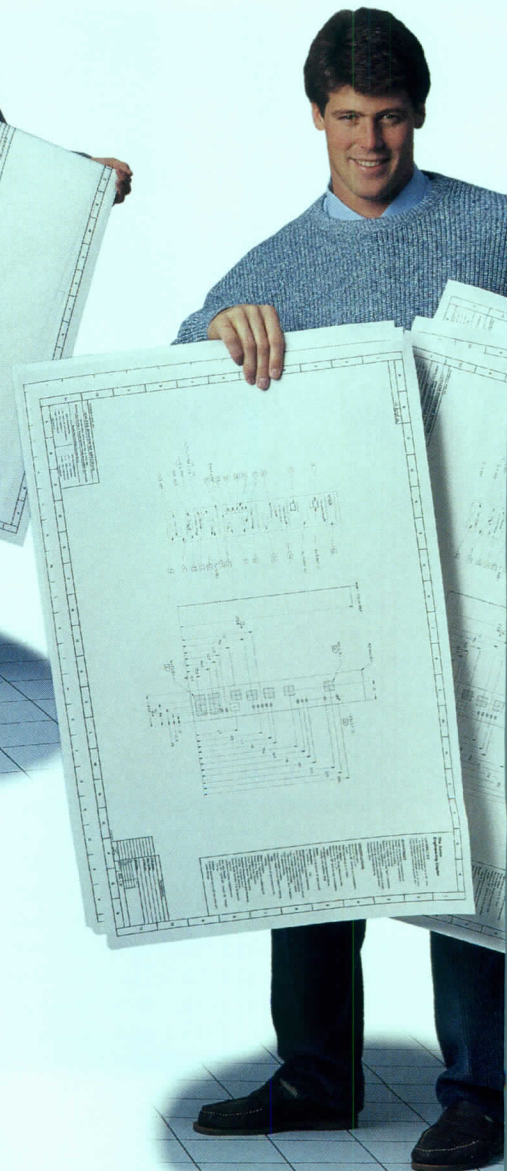
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THE CITY ON PAPER AND IN THE IMAGINATION

Three new books examine the city in strikingly different ways: as idea, as web, and as human hive.

The London Project, by Marek Walczak, et al. New York: Princeton Architectural Press, 1989, \$25.

Buildings for Cities, by Rodolfo Machado and Jorge Silvetti. New York: Rizzoli, 1989, \$25.

City Moves: A User's Guide to the Way Cities Work, by Stephen Friedman. New York: McGraw-Hill, 1989, \$22.50.

Reviewed by Douglas Gantenbein

"Cities are, of course, places in the world," writes New York architect Patricia Phillips in her introduction to *The London Project*. "But they are also ideas."

It is the city as an idea that these books tackle, each in its own way. *The London Project* tries to create a theoretical city based on the ideas of an existing one. *Buildings for Cities* looks at the idea that architecture can be used to bind cities together. And *City Moves* explores the idea of the city as human hive.

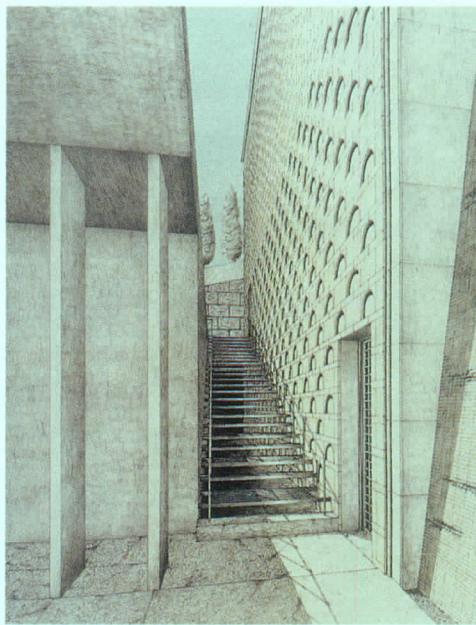
The goal of the 10 architects who assembled the book-cum-exhibition, *The London Project*, is to examine the very concept behind this venerable city. The book looks at London strictly as an idea, not a physical entity, then imposes its own forms with the goal of breaking down the barrier between idea and built object.

Some of the proposals seem fairly straightforward. Marek Walczak, one of the project's two originators, looks at eight key points in the city and re-interprets each according to his own criteria. Westminster becomes a Constructivist-like processing center for political machinations, the old site of the Globe Theater a theater for criticism, and so on.

Other portions of *The London Project* defy ready explanation. Jesse Reiser and Nanako Umemoto create, as a modern analog to the old Globe Theater, a shadow projector which beams images from word puzzles created from papier mâché overlays of telephone books and newsprint.

The results of *The London Project* are what one might expect of such a theoretical endeavor. The book is often deliberately obtuse, and the writers too frequently drop in

Douglas Gantenbein is a Seattle-based architectural writer.



Drawing from *Buildings for Cities*.

jaw-busting phrases like "This is a factual recording of the appearance of a fortuitous embodiment clothed in the lineaments of an emblem." The writing is painfully self-conscious; to not be fully involved in its authors' world is to not get the point.

A more accessible approach to the idea of the city—and a more readily useful one—is presented in *Buildings for Cities*. This copiously illustrated volume examines the strongly urban vision of two architect/teachers through projects for the United States and Italy. Machado and Silvetti, who have been partners since 1974, are natives of Argentina and teach at Harvard University's Graduate School of Design.

The unifying theme for their work is that the city is a definable, concrete entity. Their work does not try to remake an existing city, but instead aims at refining or capitalizing on what exists. It also deals objectively with the city's culture and the impact of urban form on city residents. It is, writes Harvard professor Peter Rowe in his introduction, "a serious attempt to enable ordinary citizens to regain a knowledge of their cities that has become almost the exclusive right of the social elites."

The two have successfully combined a poetic vision for the city with a well-developed sense of the practical workings of ur-

ban centers. Their 1978 proposal for the Steps of Providence, for instance, uses stairways, paths, gardens, and squares to effectively knit together the inchoate campus of the Rhode Island School of Design. At the same time the project serves a strongly ceremonial and symbolic function that transcends the practical.

Machado and Silvetti defy easy definition. They are possessed of a Modernist sensibility in their clean, sometimes spare forms. But they also are quite comfortable with the idea of history as a long unbroken tapestry, to be referred to when the opportunity suits. Their proposal for a renovated district in Dallas re-creates the rhythm of a series of Florentine palazzos without aping their form. Similarly, designs for a series of public squares in Leonforte, Sicily, make use of images of an updated city tower, complete with machicolations and viewing tubes that offer selected views of the surrounding town.

Stephen Friedman, a professor in environmental and social psychology at the University of California at Berkeley, is interested less in the city as either concept or designed object than as the subject of human use. In *City Moves*, Friedman provides an overview of urban history, then discusses the role of the automobile, the growth of suburbs, and the city as metaphor. To tie his seemingly random chapter selections together, Friedman employs cross references he calls "moves" throughout the book. Mention of Wright's ideas on an agrarian democracy, for instance, is accompanied by references to sections on the inventions of Edison and Ford. There, the reader can learn a bit about the technological breakthroughs that, to Wright, made Broadacre City possible.

Friedman's knowledge of human behavior makes parts of *City Moves* fun reading. But the book is less about information than packaging. The reader with anything more than a nodding acquaintance with urban and architectural planning will find little that is new. And the book's self-referential structure and habit of trying to engage the reader in classroom exercises ("What five, ten, or fifteen adjectives could be used to describe what it is you're seeing?") is ultimately annoying.

More books on page 54



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History of Italian Architecture, 1944-1985, by Manfredo Tafuri, translated by Jessica Levine. Cambridge: MIT Press, 1989, \$25.

Reviewed by Dennis P. Doordan

Since the end of World War II, few countries have provoked and sustained as much interest in architectural circles as Italy. In *The New Architecture of Europe*, a survey of postwar building published in 1961, the American architectural critic G. E. Kidder-Smith noted, "For well more than a decade following the war, contemporary Italian architecture was the brightest, most imaginative, and most stimulating in all Europe." Italian architects such as Franco Albini, Ignazio Gardella, and the young BPR firm dazzled the international architectural community with their sophisticated variations on Modern design themes.

More recently, the works of Aldo Rossi, Paolo Portoghesi, and Carlo Scarpa have served as lightning rods in architectural schools and professional circles, attracting both critical acclaim and furious condemnation. This fascination with things Italian is based on more than just the seductive charms of sunny Italy. Over the last four decades Italian architects have consistently produced work that challenged existing definitions of Modernism and expanded the expressive range of contemporary architecture.

In the 1950s, for example, movements such as Neo-Realism and Neo-Liberty (af-

ter the early 20th-century *Stile Liberty* movement) posed some of the earliest challenges to the doctrines of orthodox Modernism. The decade of the 1960s began with visionary planning proposals based on megastructures and ended with stinging critiques of Modernist megalomania and open revolt in the schools of architecture. In the 1970s and '80s the drama surrounding the exhaustion of Modernism and the rise of Postmodernism occupied center stage. Many of the issues that figured prominently in the international architectural debates of the 1980s—historicism versus avant-garde design, contextualism, the nature of the genesis of form, and the conceptual limits of architecture—were first articulated within the postwar architectural culture of Italy. A careful examination of Italy's national experience contributes a critical historical perspective to contemporary architectural discussions.

Unfortunately, comprehensive accounts of Italian architecture have remained frustratingly inaccessible to American readers. Vittorio Gregotti's excellent 1968 study, *New Directions in Italian Architecture*, for example, is now woefully out-of-date. And recent monographs on individual architects fail to do justice to the complexity of the Italian experience. Manfredo Tafuri's *History of Italian Architecture, 1944-1985* fills a tremendous gap in the English literature on postwar architecture. Tafuri's *History* is a revised and expanded version of a study published originally in 1982 as part of a multivolume

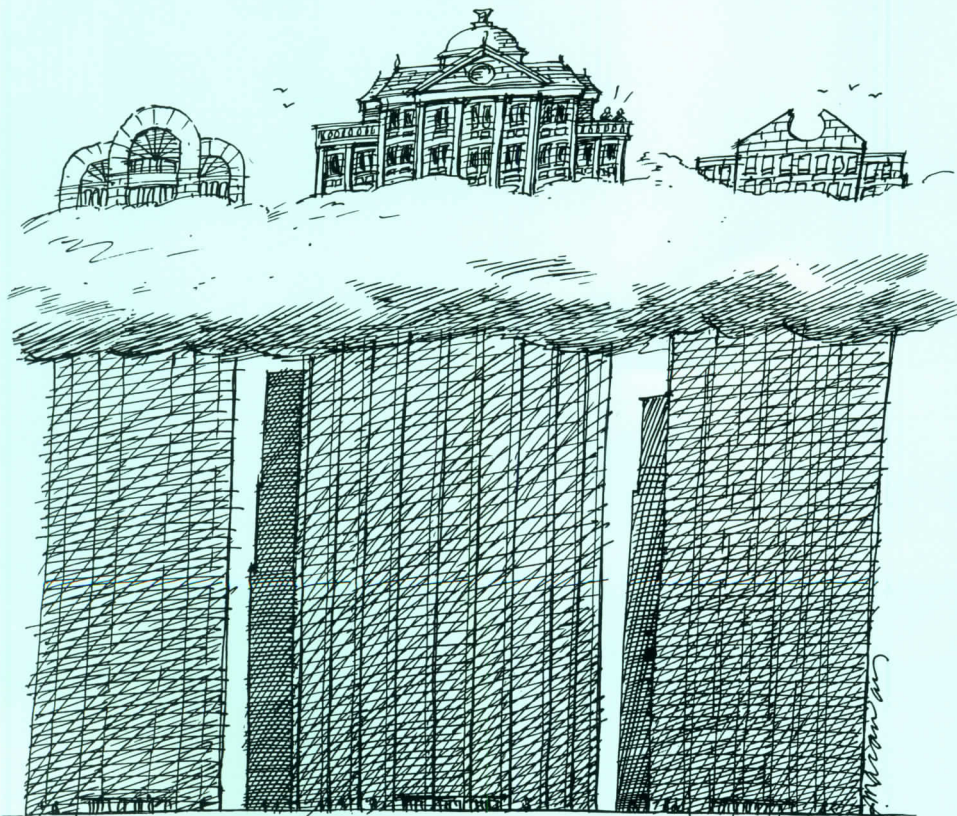
series devoted to the history of Italian art.

Manfredo Tafuri, of course, is another Italian name familiar to American readers. He has written penetrating analyses and provocative essays on topics ranging from Renaissance humanism to 20th-century avant-garde architecture and the state of contemporary criticism. *History of Italian Architecture* conforms to the tradition of Tafuri's scholarship. First, he explains the political and economic structures that determine the significant aspects of the production of the built environment. He clarifies the way, for example, in which housing legislation, methods of financing, and the condition of the construction industry affect building. He then explores the psychological dimension of professional practice; design for Tafuri can be read as a visual manifestation of a tormented psyche. Projects and buildings reveal "repressed desires" and provide opportunities for individuals and classes to "exorcise anxiety."

Tafuri's conception of architectural history and criticism is controversial and has earned him both admirers and detractors. If you do not like his earlier work, you will not like this latest effort. Even his admirers, however, may find *History of Italian Architecture* difficult. Many of his references to individuals, organizations, and events in postwar Italy will be unfamiliar to American readers. A good translation calls for more than a literal rendering of the original text in another language; it often requires explanatory material to assist the foreigners with references that are perfectly clear to the native reader. There is not nearly enough of such explanatory material in this American edition.

In the final chapter, entitled "The Threshold and the Problem," Tafuri delineates the elements of the current crisis in architecture in a way that transcends the boundaries of national experiences. What are architects to do, he asks, in an age such as ours when modern architecture is rendered mute by the inability of the Modernist ideology to command our allegiance any longer, and the multifarious forms of Postmodern design are swallowed up in the babble of pluralism? Search for questions, he admonishes, not answers. Remember, he writes, "art has the power to indicate the problem, and not to resolve it." Since the end of World War II, few architectural communities have questioned the nature and purpose of architecture as thoroughly or as thoughtfully as have the Italians. Now Tafuri has opened the door for American readers to this complex and fascinating chapter in recent history. □

Dennis Doordan is professor of architecture and art at the University of Illinois at Chicago and the author of *Building Modern Italy: Italian Architecture 1914-1936*.



"I can't exactly put my finger on it, but, it just feels 'so right' up here. You know?"

IN SEARCH OF A PROFESSIONAL DETENTE

Glasnost and *perestroika* have begun to improve the lot of Soviet architects as opportunities for professional interchange increase.

Last May at the AIA Convention in St. Louis, I met Yuri Platonov, the president of the USSR Union of Architects [RECORD, June 1989, page 9]. Yuri was filled with hope that detente between the U. S. and the USSR would bring advantages for the architectural profession through cultural exchanges for contemporary environmental design that could match in numbers and intensity the back and forth of musicians, dancers, and actors. He told me to expect exchanges of students and faculty between U. S. and Soviet architectural schools; that he intended to facilitate transfers of scholarly and technological research; that Soviet architects should be given every opportunity to travel and study in the States, and that America's architects would be made welcome in the Soviet Union. Departing, I wondered if *perestroika* and *glasnost* would last long enough for him to begin to achieve his far-reaching ambitions.

Well, it turns out that both are now even more ascendant, and Yuri is making the most of it. Last January I met him again, first in Leningrad, and then in Moscow. With me from the U. S. were architectural historian Kenneth Frampton and architect Michael Rotondi. We, along with three Soviet architects, were serving as jurors selecting U. S. and Soviet architectural projects for a traveling exhibition: "The Socially Responsible Environment—USA/USSR—1980-1990," sponsored jointly by Architects/Designers/Planners for Social Responsibility (ADPSR) and the USSR Union of Architects. The president of ADPSR, Tician Papachristou, and Yuri, having agreed to a series of exhibition exchanges, together invented this first one.

ADPSR represents more than 2,500 U. S. architects, interior designers, and planners. It opposes nuclear and conventional war, hoping to redirect national activities toward improving the quality of the built environment. Conceived to address these goals, and to help fill the information gap caused by the isolation of Soviet architects from their fellow practitioners in the U. S. and Western Europe, the exhibition consists of the jury's selection of the most significant architectural works designed in the U. S. and the Soviet Union in the past 10 years. The show opens at the Knoll International showroom in New York City on April 24, and will travel to other U. S. cities. A May 2nd opening is scheduled for Moscow, and the exhibit will tour the Soviet republics. More about the exhibition after it opens.

It is enough to note that the momentous political and social transformations in the Soviet Union are expanding the reach and knowledge of all kinds of people, including architects.

MILDRED F. SCHMERTZ

Arthur Erickson
marries civic
iconography and
human scale on
Pennsylvania
Avenue.



Canadian Chancery
Washington, D. C.
Arthur Erickson Architects

The new Canadian Chancery (a.k.a. Embassy) on Pennsylvania Avenue, practically across the street from I. M. Pei's East Building for the National Gallery of Art, was officially opened by Prime Minister Brian Mulroney in May 1989. In a city that has been deplorably lacking in architecture of much distinction over the past 40 years or so, the new Chancery, designed by Arthur Erickson, is a breath of fresh air. Of all the embassies that have been constructed in the nation's capital since World War II, only the late Egon Eiermann's German Chancery, off Foxhall Road, really enhanced the local scene. The new Soviet Embassy, a blockbusting monument to the Cold War, looms above Georgetown's skyline in clear and justified retaliation for the new U. S. Embassy, built simultaneously in Moscow. And of most of the new structures either built or planned on other sites along Pennsylvania Avenue, the less said, the better: it's a free country, even if its capital *is* beginning to look as if it had been conceived by the late Albert Speer. And you can always escape to Pei's lovely East Building if the latest eruption of faux-classicism down the street gives you the willies.

Arthur Erickson's work in Vancouver and elsewhere had prepared him well to tackle any commission on an urban scale. But the Canadian Chancery presented some problems that were more complex than any he had faced before.

First, there was the site, a prominent corner on the nation's Main Street. The property measures roughly 1 1/2 acres in area, and is defined by Pennsylvania Avenue to the south, John Marshall Park (with its bland, GSA-style structures) to the east, and C Street to the north. It is unquestionably the most imposing embassy site in Washington.

Second, there were the ground rules laid down by the Pennsylvania Avenue Development Corporation (PADC) in its master plan for this important street. These mandates set the cornice-line height of any building constructed on the site and

FEDERAL STYLE

the footprint, including a specific definition of the critical southeast corner of the building and an equally specific alignment along the surrounding streets. Which left little more than a window or two, and an entrance or two, to the discretion of the designer—or so it seemed. Moreover, these matters—and all other design decisions—had to run the gauntlet of Washington's innumerable commissions, which have managed to mold the capital in their own image.

Third, of course, there was the client's program, which, while fairly complex, was barely ample enough in its space requirements to fill a building of half the bulk mandated by PADC in its master plan. Yet the site was so prestigious, and so symbolic of the special friendship that exists between the two North American neighbors, that a way had to be found to reconcile the modest building program with the important site available to the Canadians and the hefty bulk called for by the PADC.

Fourth, there were questions of architectural diplomacy: as an honored guest in a prominent place in the host nation's capital, do you defer to the local scene (regardless of what you might think of it, in private)—and, if so, to what portion of that scene? To Pei's minimalist, marble, concrete and glass elegance? To John Russell Pope's Neoclassical pomposity? To the aggressiveness of the J. Edgar Hoover FBI Building down the street? To the GSA's mediocrity all around? To the Federal Trade Commission's rotunda at the intersection of Constitution

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MARCH · 1990





and Pennsylvania avenues? To all of the above—or none? Moreover (and this, too, is part of architectural diplomacy), do you attempt to express something symbolic about your own country: its political structure, its spaciousness, its openness, its generosity? And, if so, how? Finally, because with this building your own country and its articulate people were, in a sense, trying to say something about themselves to their self-absorbed neighbor to the south, your real client was not the Canadian Department of External Affairs, but the 25 million citizens of Canada, each of whom probably had some idea of what their house in Washington should look like.

In short, the Canadian Chancery was perhaps not the easiest commission Arthur Erickson had ever tackled.

The program for the Chancery called for three distinct elements: a block to contain the Ambassador's offices and various support services, as well as the Political, Economic, Defense, and Public Affairs divisions; a number of spaces (including an art gallery and a 171-seat theater) that would add up to a small Canadian cultural center; and a compact wing that would contain consular services—e.g., places where would-be immigrants to Canada could apply for visas. These three basic elements would all be interrelated, but there would be separate entrances to each, plus loading docks to supply various services. In addition, a two-level basement garage for 234 cars would serve as a staff entrance for Chancery employees, who would reach their offices by elevators.

There were many other requirements, some of them involving ceremonial functions, others dictated by security considerations, still others by the client's desire to provide various pleasant amenities for the Chancery's staff—a gym, a restaurant, a lounge, a commissary, and similar facilities.

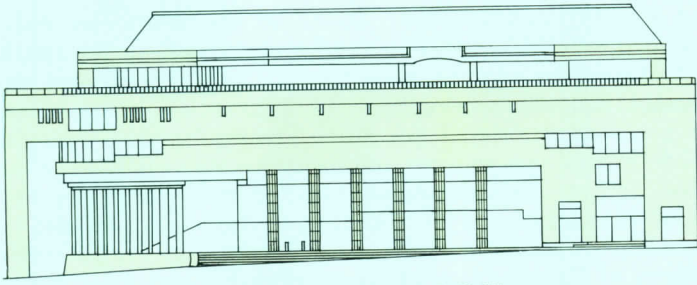
Erickson's solution to all these requirements and constraints is a building of deceptive simplicity: a structure, U-shaped in plan, that frames and defines a spacious interior court largely open to the city. Because the site is accessible from three sides, Erickson was able to provide garage and service entrances on the north, entrances to the consular services and a formal ceremonial entrance driveway on the east, and public entrances from Pennsylvania Avenue on the south.

In some respects, the resulting building is reminiscent of Le Corbusier's beautiful 1957 Monastery of La Tourette, near Lyon, although the latter is located in a rural setting, and the Canadian Chancery is very much an urban building. Both buildings frame an interior court, both contain a very complex range of interior spaces (within a deceptively simple, enclosing framework), and each treats its top floor as an observation deck from which to enjoy distant views.

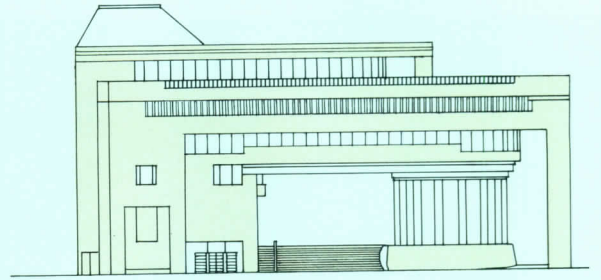
But where La Tourette is a rough building in Le Corbusier's post-World War II *béton brut*, Erickson's Canadian Chancery is a polished structure, elegantly detailed and flawlessly finished. What is more, his central court is not, strictly speaking, an interior space; it opens the Chancery outward to its surroundings in a friendly and welcoming fashion not seen in many government structures, in Washington or anywhere else.

Although the Chancery boasts a number of successful interiors, its central court is clearly the building's handsomest space—and a significant contribution to the city as a whole. The court is a 100- by 200-foot platform raised some 12 feet above Pennsylvania Avenue. It is paved with a Canadian stone described as being halfway between marble and limestone, and reached by flights of steps and ramps that adjust in height to the complex levels of the surroundings.

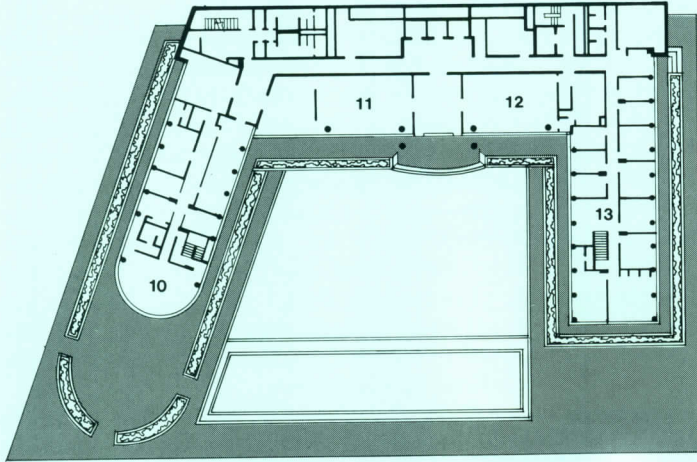
One of Washington's most serious urban flaws is that the city has virtually no outdoor spaces scaled to pedestrian usage. Its parks and plazas seem designed to induce massive agoraphobia: they don't "work" for normally dimensioned human beings, except when the latter march militarily, or in protest. The Canadian Chancery's central court is Washington's first outdoor space within memory that seems scaled to comfortable



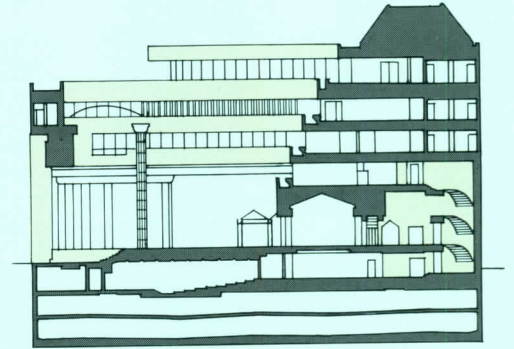
JOHN MARSHALL PLACE ELEVATION



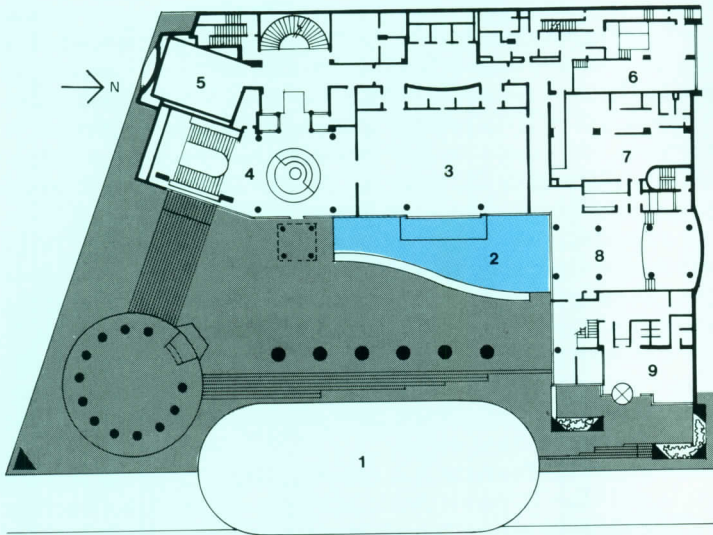
PENNSYLVANIA AVENUE ELEVATION



EXECUTIVE FLOOR LEVEL

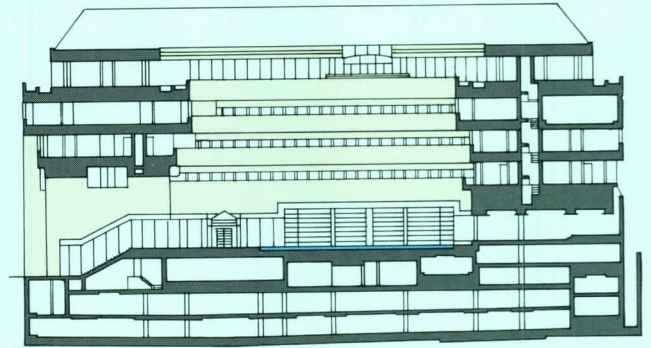


EAST-WEST SECTION



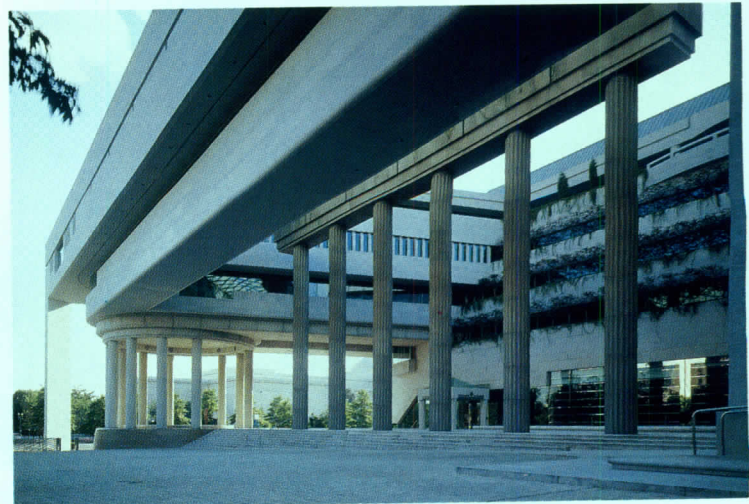
PODIUM LEVEL

20



NORTH-SOUTH SECTION

- | | |
|-------------------------|----------------|
| 1. Vehicle arrival | 8. Cafeteria |
| 2. Pool | 9. Immigration |
| 3. General-purpose room | 10. Ambassador |
| 4. Lobby | 11. Reception |
| 5. Art gallery | 12. Dining |
| 6. Loading | 13. Office |
| 7. Kitchen | |



human usage. Moreover, it will become increasingly pleasant in the months and years to come: Erickson, in collaboration with landscape architect Cornelia Oberlander, has turned the east facade of the office block facing the court into a tiered cascade of pink-flowering hawthorns, memorial rose bushes, and, as ground cover, white azaleas. When Oberlander first saw Erickson's sketches for the Chancery court, she was reminded of the Canopus in Hadrian's Villa. "Pliny the Elder described the villa in terms of the roses and the topiary work carried out by the gardeners," she recalls, "and that gave us the basic concept."

At the level of the raised courtyard, there are pools in constant motion. One of these—a "wave pool"—will soon be endowed with an 18-foot-long, 12-foot-tall, bronze "spirit canoe" by the native Haida carver and jeweler Bill Reid. "He is the most influential person on our west coast in the revival of the native arts," says Erickson. Reid's work, according to Erickson, will be a vessel in which the Shaman transports the initiate to the underworld. "A tall figure stands majestically among a rabble of fighting humans—actually, half humans, half animals," Erickson explains. We shall see what evolves. The waters of the wave pool will lap against the spirit canoe, while the Shaman heads for the underground garage.

If the Chancery's central court is a pleasant urban space scaled to house humans, it is also a very effective stage on which Erickson has placed a number of sets designed to enliven the action and relate to various architectural elements in the immediate neighborhood. There is a row of six, 80-foot-tall "classical" columns, quite obviously made of cast aluminium, and just as obviously *not* supporting a glass canopy that protects the ceremonial entrance to the Chancery. "They stand as symbolic devices," says Erickson, who wasn't about to hold up his buildings on a classical colonnade. "I couldn't bring myself to be serious when regulations required condescension to the Orders," he explains. "I wanted soaring, precipitously hovering cantilevers that defied the logic of their support—something that breathed courage, expansiveness, spaciousness—that is, the qualities of our land."

To the south of this faux-colonnade is a rotunda of 12 columns (10 for the Canadian provinces and two for the territories); this piece of urban stage set, placed in a second, circular pool, sends a friendly greeting to the Federal Trade Commission's 1937 rotunda down the street. Other little touches of theatricality—more steps, more ramps, some *real* columns to support those soaring cantilevers, and a small entrance pavilion to mark the Chancery's front door—complete the stage. It will make a fine place for ceremonies and celebrations, and for people who want to watch the next presidential inauguration from the best vantage point on Pennsylvania Avenue.

The interiors are just as pleasant as the Chancery's great outdoor anteroom. They are the work of Erickson and his frequent collaborator, Francisco Kripacz, and they are as elegant as any interiors done in Washington in some time. What makes the designers' work in this field—and in this building—so memorable is the way in which Erickson and Kripacz collaborate with other artists and designers: the auditorium, for example, is as much the work of the Montreal fiber artist Mariette Rousseau-Vermette, who designed the stunning curtain of polished and brushed anodized aluminum strips, as it is the work of Erickson, Kripacz, and their lighting consultants, who were responsible for the side walls of perforated silver-painted steel that conceal an intricate system of backlighting. And throughout the Chancery there are works of art by Canadian painters and sculptors that could easily hold their own in Pei's galleries across the street: the "Inukshuk" by the Inuit artist David Ruben Piqtoukun—an abstraction of Ontario stone piled up in the huge form of a traditional Eskimo marker—is one of the finest works of contemporary sculpture in Washington. This work, together with Bill Reid's spirit canoe and several other commissioned pieces, make the Canadian

Chancery an unusual repository of contemporary art.

The interiors are impressive for several other reasons as well. They were designed not merely to serve their assigned functions, but also to frame some of the finest views of Washington to be had in this part of the capital. The Ambassador's office and terrace, which are located on the top floor above the Rotunda of the Provinces, has one of the best available views of the Capitol, and there are equally impressive views from other interior spaces of the National Gallery and the Mall.

But what strikes one most forcibly about these interiors—and about the building as a whole—is the excellence of the workmanship throughout. The general contractor, the George Hyman Construction Company, worked with several Canadian subs and suppliers, and handled much of the basic work (especially the concrete) itself. Sandy Morgan, Hyman's project manager, is enthusiastic about the job. "The architects and the owners were the best I've ever worked with," he says. "They were very knowledgeable about every aspect of the work." Morgan is especially happy with the quality of the concrete, which is half flag cement, half portland cement, and turns from gray to deep blue-green during the process of hydration, and then back to gray. The architectural concrete, according to Morgan, sets a new standard, and its lightly sandblasted finish turned out especially well. "Arthur Erickson told me that if he'd known how good a job we could do, he wouldn't have used stone to face the building," Morgan says proudly.

The Ontario stone that was used on the Chancery facade is whiter than the Tennessee marble used by Pei on the National Gallery. Unlike the Tennessee marble, which required elaborate neoprene gaskets to take care of expansion and contraction, the Canadian stone has caulked joints that handle the problem, and is held in place with stainless-steel anchors.

Inside, the workmanship is even more impressive. Door frames, hardware, the detailing of the glass screens and doors (part clear, part sandblasted)—everything is first-rate. Although some of the details were dictated by security considerations, they rarely intrude. "The architects built a lot of security—steel mesh, and so on—into interior 'security walls,'" says Morgan. "They did it very well—you can hardly see it." The only exception is the glass used throughout the exterior: it is 1-1/4-inch, bullet-resistant plate at the entry level, which has a green tint. To match it, Erickson decided to stick with the same tint in the upper-floor windows as well.

Most Washingtonians seem to like the new Chancery, though some critics of Postmodern persuasion have predictably grumbled. They may soon have even more reason to complain: the West Germans have commissioned O. M. Ungers to design their Ambassador's new residence, and Spain has commissioned Rafael Moneo to design the new residence for *its* Ambassador. Washington's architectural establishment, which seems largely mired in the 19th century, is concerned. With this splendid new building on Pennsylvania Avenue joining one of Pei's finest works across the street, it should be. □

Canadian Chancery Washington, D. C.

OWNER: Government of Canada

ARCHITECT: Arthur Erickson Architects—Arthur Erickson, principal-in-charge; Keith Lofler, project director; Barbara Vogel, design director; Peter Clewes, Anne Vezina, Pui To Chau, Fred Allen, John Pepper, Peter Bull, project team; Douglas Campbell, construction manager

ENGINEERS: M. S. Yolles & Partners (structural); R. David Mackay Engineering Ltd. (mechanical); BFH/Shawingam (electrical)

CONSULTANTS: Francisco Kripacz (interior design); Claude Engel (lighting); Arthur Erickson Architects/Cornelia Oberlander (landscape)

GENERAL CONTRACTOR: George Hyman Construction Company



Window walls slide open in warm weather, blurring the separation between a general-purpose room (top left) and the embassy's spacious courtyard (below). The ambassador's private dining room (bottom left) commands striking views of the U. S. Capitol from the embassy's sixth floor. Public spaces in the 287,000-square-foot building include a 171-seat theater (opposite), which, together with an art gallery, has a separate entrance facing Pennsylvania Avenue.





SOUTHERN TRADITIONS

Preservation efforts in today's South show new interest in 20th-century landmarks, as well as earlier ones.

Skyscrapers and swimming pools don't normally come to mind when talking about historic preservation in the South. But as the 20th century enters its final decade, many people are rediscovering the exceptional structures built in the region between the two world wars. The largest number of these landmarks sprang up in Florida, where a real-estate boom created a host of new millionaires and attracted the attention of quite a few old ones too. The prevailing notion in Florida during the Roaring Twenties was that money was meant to be displayed. As a result, mansions, office towers, even municipal facilities exhibited lavish attention to detail and ornament.

Perhaps because most of Florida was so new, some of the people who built there in the '20s liked to give the impression of age. Denman Fink, the artist behind the Venetian Pool in Coral Gables (2, right), went so far as to rough up the stucco finish of his buildings so they would seem old from the very beginning. Schultze and Weaver, the architects of Miami's Freedom Tower (originally the *Miami Daily News* tower), took a less eccentric approach, modeling their building (1) after one of Europe's 12th-century masterpieces, the Giralda tower in Seville. And Jacksonville architect Harold Saxelbye borrowed from the Spanish Renaissance and Baroque eras in creating the duPont mansion that now serves as a yacht club (opposite). But no one in this land of sunshine and easy money took himself too seriously. A bit of fantasy touches all of these projects.

Preservation architects must be good detectives. When original drawings and documentation aren't available, they work from clues: paint chips, old photographs, and fragments. In the case of the Howard Memorial Library in New Orleans (3), architect Errol Barron had to do all that, plus answer the classic question: Who done it? H. H. Richardson or his successor firm, Shepley, Rutan, and Coolidge? After visiting the five other libraries Richardson designed in his career, Barron concluded that the master himself was responsible for the building. Although Richardson was born in New Orleans, his architecture reflected Northern attitudes—brooding, dark, and powerful. The fun-loving natives of his home town never truly appreciated the muscular Romanesque Revival library he left for them on Lee Circle, and a series of owners abused the building with unsympathetic remodelings. Restoring the spectacular reading room, while also linking the library to a corporate headquarters being carved out of a converted warehouse next door, has been a delicate (but rewarding) task for Barron.

Adapting old buildings for new uses might often be likened to putting a square peg into a round hole. James Glave, though, got the right fit when he converted seven rowhouses in Richmond into an inn (4). In fact, he changed the floor plans so little that if the owners so desired, they could easily convert the project back to townhouses.

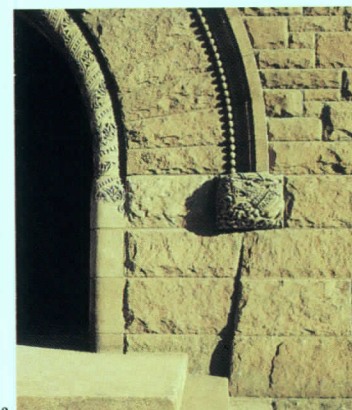
CLIFFORD A. PEARSON



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ALAN KARCHMER



©WALTER SMALLING, JR.

Newly restored structures in the South include Miami's 1925 Freedom Tower (1), the 1926 Venetian Pool in Coral Gables (2), the 1889 Howard Memorial Library in New Orleans (3), and Linden Row in Richmond (4), built from 1845 to 1853.



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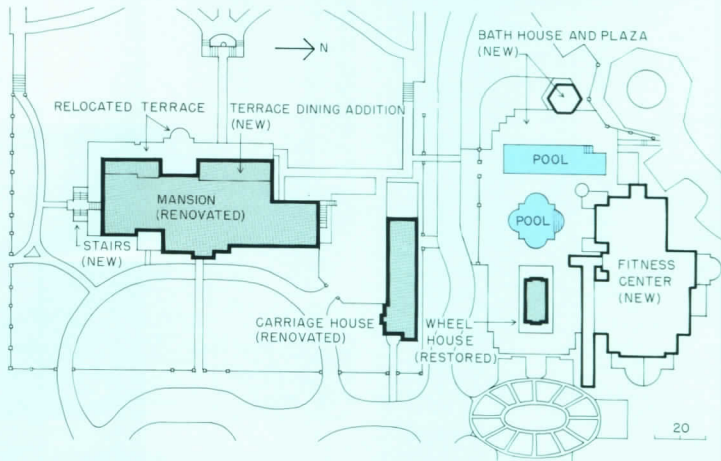
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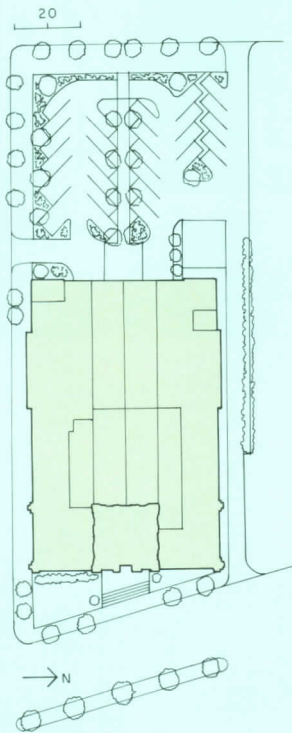


Epping Forest Yacht Club
Jacksonville, Florida
Pappas Associates, Architects

Built in 1926 as a second home for captain of industry Alfred I. duPont, Epping Forest today serves a number of skippers. In converting the mansion into a yacht club, architect Ted Pappas restored its stucco exterior, while adding a new dining area on the rear of the house (top right). To keep the addition as light as possible, Pappas roofed it with a laminated vinyl fabric and opened it up with large arched windows echoing those found on the old building. The new dining area, though, required moving the existing terrace back several feet. Fire codes demanded a new exit, so Pappas built an imposing stair reminiscent of an existing one in the garden.

The project also included converting an old carriage house into a bakery, restoring a wheel house, and building a new fitness and swimming facility (above right).

C. A. P.



©DAN FORER PHOTOS

Rebars and L-brackets secure ornamentation such as obelisks (above right) and finials that had been removed in the 1920s. The lobby interior and a coffered ceiling above the staircase leading to the banquet hall (opposite, left and top right) were cleaned and repainted. Vaulting in the 575-seat banquet hall (opposite lower right) conceals new air conditioning.



Freedom Tower
Miami, Florida
R. J. Heisenbottle Architects

After restoring Miami's venerable Freedom Tower to the condition it had been in before it was last abandoned, architect Richard Heisenbottle received quite a few accolades. The building's stucco exterior had been repaired, its original wood windows had been re-created, and its 800-pound front doors rebuilt. The 17-story structure once again looked like the Biscayne Boulevard landmark that many Miamians remembered. But Heisenbottle wasn't finished. His goal was to turn the clock all the way back to 1925, the year the tower first opened.

Today the Freedom Tower is something of a surprise—an old friend that looks so good we hardly recognize it. What is new for most people in Miami are many of the elaborate details, especially the 73 obelisks and eight finials that had been removed over the years. Much of this ornament had been



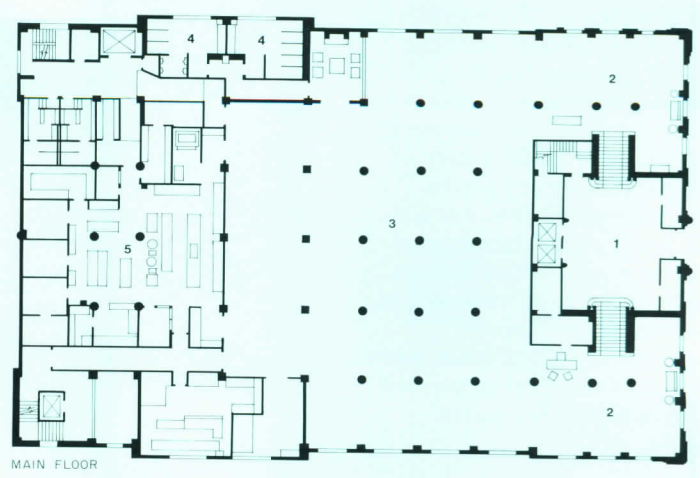
- 1. Lobby
- 2. Anteroom
- 3. Banquet hall
- 4. Restroom
- 5. Kitchen

stripped off in 1927 after a hurricane raised doubts about its safety. "The obelisks and finials were the building's lost crown," says Heisenbottle.

Originally designed by Schultze and Weaver as an interpretation of the Giralda bell tower in Seville, the building served as home to the *Miami Daily News* until 1957 and then as a processing center for Latin American refugees in the 1960s (when it earned the name Freedom Tower). From 1974 until renovation began in 1987, the building lay vacant and prey to vandals. The tower now awaits office tenants, while the main floor serves as a banquet facility.

Using original drawings and old photographs, Heisenbottle repaired (and in some cases reconstructed) exterior features such as a cast-iron transom and balcony, quatrefoil windows, and the copper-clad dome and cupola. Inside the building, a destroyed mural was replaced with a replica, new mechanical systems were tucked behind the banquet hall's vaults, and steel was repaired throughout the structure.

C. A. P.



MAIN FLOOR



©DAN FORER PHOTOS



Once dubbed “the world’s most beautiful swimming hole,” the free-form Venetian Pool was created from a quarry, whose rock was used to build many of the neighboring houses. Exterior materials, such as the local stone, brick, and stucco used on the towers (top), have been restored to their original “aged” condition. Potted trees were added to the dining terrace (above right) for extra shade.

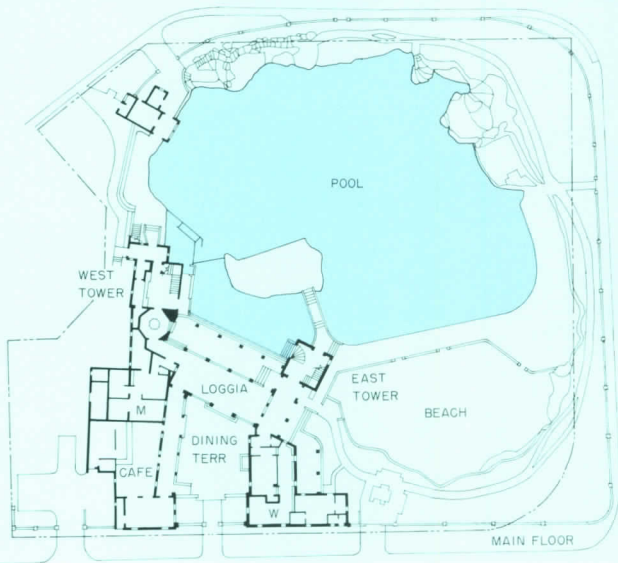
Venetian Pool
Coral Gables, Florida
H. Carlton Decker and Associates, Architects

When artist Denman Fink and architect Phineas Paist created a public swimming facility for the new town of Coral Gables in 1926, they made sure it was instantly old. From day one the stucco seemed worn, revealing just the right amount of rough stone and brick. Mortar for the terrazzo in the courtyard varied in hue, as if the floor had been laid and patched at different times. And each of those brightly colored light poles leaned at a slightly different angle.

“It was a little bit of Disney, even back then,” says Carl Decker, the architect in charge of the pool’s restoration and renovation. Maintaining the carefully disheveled character of the place was important to Decker. In repairing stucco, for example, he re-created the original weathered look by using layers of different hues—from blush to beige.



The loggia (above left) was partly destroyed by a fire during restoration and had to be rebuilt. The west tower (above right) houses a ticket and information area on the ground floor and an apartment on the top for the head lifeguard. A wheelchair lift is hidden by a masonry wall behind a lifeguard chair (above right). Local craftsmen restored a weather vane on top of the west tower (right).



The pool, which had been carved from an abandoned rock quarry, had aged quite well and required few major repairs. What prompted the city to spend \$2.3 million for renovation work was the facility's wasteful "dump-and-fill" system, which drained 820,000 gallons of water regularly (daily, in the summer) into the city's sewer and then refilled the pool with water from a subterranean aquifer. The popularity, though, of the cool water resulting from this practice and the fact that this was the last dump-and-fill pool built in Florida pushed the architect to find a solution that would maintain the old ways without wasting water. Decker's answer was an injection-well system that recycles pool water back into the aquifer.

Another major goal of the renovation was making the entire facility accessible to the handicapped, many of whom are devoted users of the pool. To this end, Decker added an automatic lift for wheelchair access to the pool, as well as ramps at three different locations.

Over the years the pool and its surrounding buildings had

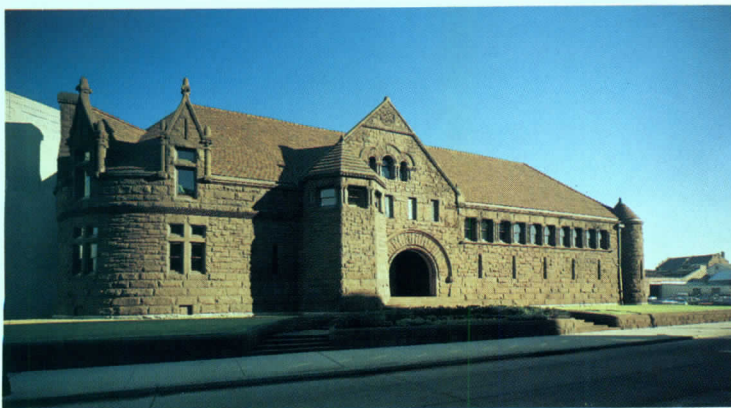
been subjected to a variety of changes, some of them unsympathetic to the fanciful character of the project. Returning the facility to its original state involved removing a diving platform and restoring the pool's free-form edge, tearing out concrete and repairing broken floor tiles in a small octagonal room called the aquarium, and restoring tiles on the small bridge to the swimming pool's concrete island.

Decker also replaced all of the mechanical and electrical systems, repaired the wrought-iron fencing around the perimeter of the site, restored a trellis behind the women's locker room, and brought in Edward D. Stone, Jr., to bring the landscaping closer to what it had been originally.

Not long after restoration began, a fire broke out, destroying the men's locker room and part of the loggia. As a result, the locker room and three of the loggia's four bays were rebuilt. Today the pool and its accompanying buildings once again project an image that could have come from an Italian watercolor: romantic, soft around the edges, and inviting. C. A. P.



ALAN KARCHMER PHOTOS

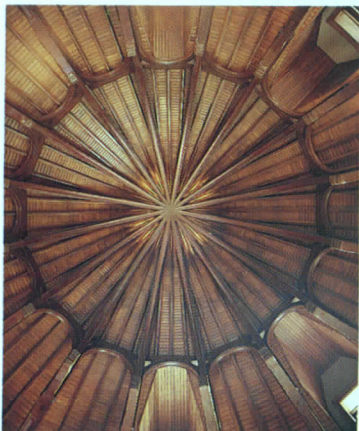
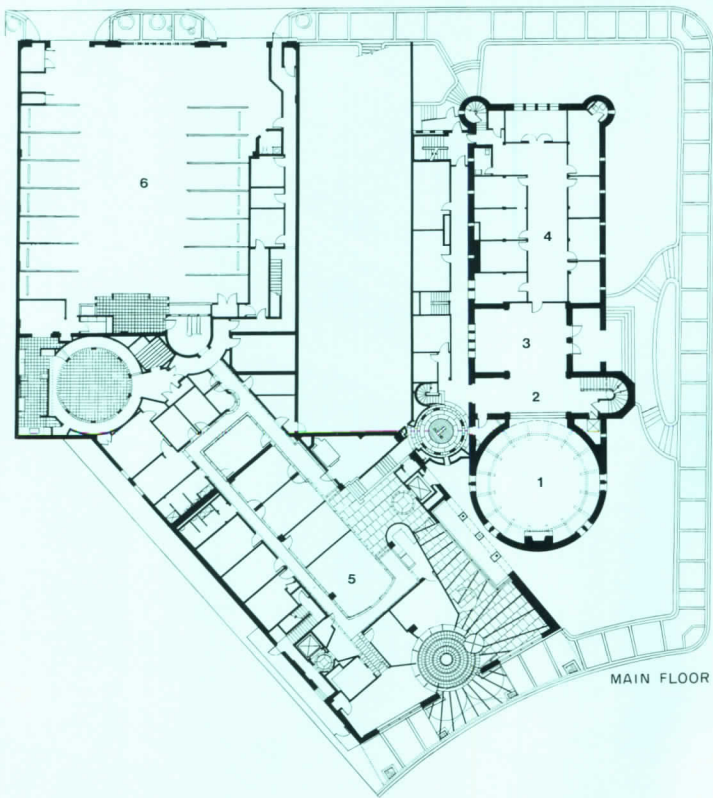


Howard Memorial Library
New Orleans, Louisiana
 Errol Barron/Michael Toups Architects

Abused, neglected, its patrimony questioned, the Howard Memorial Library has suffered a history of bad luck. No sooner had Charles Turner Howard conceived the idea of a new library open to the public, than he was thrown from his horse and killed in 1885. Howard's daughter kept the project alive by acquiring the designs of another deceased man, Henry Hobson Richardson. Those plans came from a passed-over entry to a competition for a library in East Saginaw, Michigan—one of the last projects Richardson worked on before his death in 1886—and were adjusted to the new site on Lee Circle by Richardson's successor firm, Shepley, Rutan, and Coolidge.

Changes in Richardson's design included expanding the size of the building by about a third, adding balconies to the book room, and altering the fenestration between book stacks; nev-

- 1. Reading room
- 2. Anteroom
- 3. Delivery room
- 4. Offices
- 5. Headquarters
- 6. Garage



An adjacent warehouse (opposite top) is being converted into a corporate headquarters, with new balconies made from oil-field casings. The library's lawn was lowered to reveal the building's granite string course (opposite bottom). The reading room (photos this page) has been restored to its original condition.

ertheless, the tripartite plan and front elevation, as well as the use of materials and handling of details, help establish this building as the sixth and last in a line of Richardson-designed libraries. While some experts still question whether the building should be attributed to Richardson or his successors (the July 1896 issue of *RECORD* gave credit to Shepley, Rutan, and Coolidge), Errol Barron, the architect who headed the building's recent restoration, has no doubt that the master's hand comes through the strongest.

After first being abandoned and then falling victim to a fire and a series of brutal renovations, the library was rescued by oil tycoon Patrick Taylor, who will use the building for corporate functions and offices. Taylor's first priority was restoring the exterior of the library and the interiors of the reading room, delivery room, and anteroom. Damaged mortar joints were replaced, the surface of the red stone was cleaned with low-pressure water treatment, iron gratings over windows were removed, and new 3-inch-thick solid-core oak doors were

rebuilt for the entry. Inside the building, Barron removed partitions separating the reading room from the anteroom and delivery room so the spaces flow into one another as Richardson had intended. Heightening the great sweep of these spaces is a newly restored pine floor, which had been covered by concrete for many years. Workmen also removed all wall paneling not original to the building and replaced it with new quarter-sawn oak panels. The dramatic beamed ceiling of the reading room was stripped of paint and carefully refinished.

All this work would have been to little effect if Taylor hadn't agreed to demolish part of a 20th-century annex blocking two of the reading room's four dormers. With all the dormers open, light now streams in, bringing the great space to life. Barron, who is converting two adjacent warehouses into a headquarters for Taylor Energy, is also restoring the beamed ceiling over what once was the book room. Two floors added in the 1950s for offices, however, now separate the original room from its ceiling, a situation that may eventually be rectified. C. A. P.



RICHARD CHEEK FOR HISTORIC RICHMOND FOUNDATION

The restoration of the Franklin Street facade (above and right) involved returning small-paned windows to the rowhouses. In the back, the architects rebuilt the three-story galleries (opposite, top left and right) and extended them six feet. A guest suite (opposite lower left) occupies a double parlor on the ground floor.



Linden Row Inn
 Richmond, Virginia
Glave Newman Anderson, Architects

Walk along Franklin Street in Richmond and just eight blocks past Thomas Jefferson's Virginia State Capitol you'll find a row of seven Greek Revival townhouses that has conceded little to the passing of time. Doric-columned porticoes, wrought-iron railings, and vertically proportioned windows appear exactly as they did in the 1840s and early 1850s when the buildings were first constructed. What has changed is only their function: instead of serving as private residences, these structures now work as a 73-room inn.

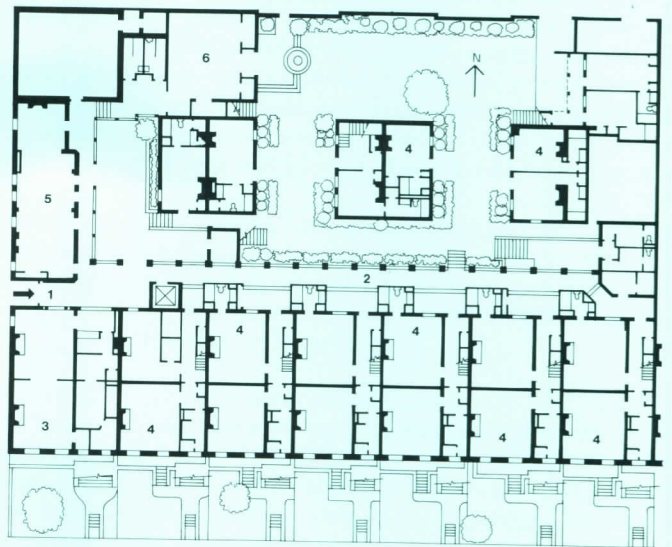
Thanks to the efforts of Mary Wingfield Scott, Richmond's pioneering preservationist earlier in this century, the Linden Row townhouses have been protected as a complete set of architectural works. Scott acquired the buildings over a period of time, then bequeathed them to the Historic Richmond Foundation, which



©WALTER SMALLING, JR. PHOTOS, EXCEPT AS NOTED



1. Entry
2. Gallery
3. Parlor
4. Guest room
5. Restaurant
6. Meeting room



sought hard for a way to pay for repairs without compromising the project's architectural integrity. The solution lay in a proposal from a private developer, Southeastern Historic Properties, to convert the buildings into a small hotel without changing any of the room configurations or stairways.

The key to the plan was rebuilding the galleries on the rear of the buildings. Architect James Glave extended the galleries six extra feet from the building wall so new bathrooms could be built off each guest room. The galleries now tie the townhouses together and serve as both a vertical and horizontal circulation system for the entire hotel. This scheme allowed Glave to retain the double parlors on the ground floor as suites and use bedrooms above as standard guest rooms. Original moldings, fireplaces, marble mantels, and plaster cornices were restored throughout the project. Existing interior doors were also retained, although extra panels had to be added to provide adequate fire protection.

Guest rooms are furnished with antiques from the late Empire

and Victorian periods, and most of the gasoliers and mantel mirrors come from Mary Scott's collection, which the Historic Richmond Foundation has put on loan to the inn.

Glave also converted three dependencies in back of the townhouses into guest rooms, built small additions on the east and west ends of the site to serve as meeting and service rooms, and wove an existing service building along First Street (the western edge of the project) into the hotel as a restaurant. The two-story dependencies and outbuildings help define small courtyards for outdoor dining and relaxing. Glave Newman Anderson, which served as landscape architects, repaved the courtyards with brick, re-created a small fountain, and brought in new trees and plantings. No parking was needed on site, as a nearby lot serves the needs of guests and employees. Construction costs for the 49,000-square-foot project came to \$4 million.

Although the Foundation has transferred ownership of the property to the developer, it retains design control and a right of first refusal if the inn is ever sold.

C. A. P.

“GRANDS PROJETS”

Monumentality and the machinery of state: François Mitterrand's Parisian monuments symbolize the French nation's political agenda.

In what is the most lavish state-sponsored building program since the remaking of Paris by Baron Haussmann, the French capital, under the Socialist President, François Mitterrand, has erected nine major cultural facilities—and for the Ministry of Finance, displaced by renovations at the Louvre—a gleaming new headquarters. The competition-winning schemes include the Grand Louvre by I. M. Pei and Partners; the Great Arch of La Défense, intended as a futuristic center for electronic communications, by the late Johann Otto von Spreckelsen (completed after his death by the firm of Paul Andreu); the Bastille Opera by Carlos Ott; the Orsay Museum by ACT Architecture and Gae Aulenti; the Museum of Science and Industry by Adrien Fainsilber; the Ministry of Finance by Paul Chemetov and Borja Huidobro; La Villette Park by Bernard Tschumi; the City of Music by Christian de Portzamparc; and the Arab World Institute by Jean Nouvel. Now that some of the *Grands Projets* are finished and others are nearing completion, architectural historian and critic William J. R. Curtis steps back and considers them in a longer perspective than that allowed by the hoopla surrounding the bicentennial of the French Revolution last July.—M. F. S.



“Architecture has its political use, public buildings being the ornament of the country; it establishes a nation, draws people and commerce, and makes people love their native country, which passion is the origin of all great actions in a commonwealth.” Sir Christopher Wren, *Parentalia*

The *Grands Projets* are buildings that can be examined in a number of ways—as additions to the urban landscape of Paris, as new social functions, as displays of technical virtuosity, as political icons—but they are also *modern* monuments, and as such reveal contemporary stands on both the extension of the Modernist tradition and the representation of ideas of the state. As public buildings they have long-term responsibilities to their urban settings and so must be assessed by standards that go beyond transient fashions. It is necessary to ask what the *Grands Projets* contribute to the lasting architecture of the times.

The contemporary designer of monuments does not share the certainties of the cathedral builders who encapsulated shared beliefs in an accepted set of symbolic forms; nor is the scale of the modern industrial metropolis on his side, for there is no longer a direct correlation between civic importance and size. In fact, there are few rules governing the architectural appearance of institutions today, and fewer ideas that seem worth the time and expense of monumental expression. Some will argue that the contemporary city is no longer capable of carrying significant public “messages” because of an overload of media and electronic information. The very word “monumentality” acquired negative connotations with the abuses of the totalitarian regimes in the 1930s, which contributed to the devaluation of Classical conventions. Modern architecture, in turn, cast

aside many traditional devices of rhetoric and symbolism. None of this has stopped the creation of a viable tradition of modern monumentality, including the likes of Le Corbusier's Parliament at Chandigarh or Jørn Utzon's Opera in Sydney, but it serves to remind one that the construction of civic monuments in the late 20th century is inherently problematic.

Throughout history monuments have been used to commemorate great historical events, to give concrete shape to communal myths, and to legitimize power over individuals or elites. A monument of lasting architectural quality tends to sublimate transient ideologies to lend them a permanent form. Monuments have a propaganda function authenticating the new in terms of the old and proposing current policy as the inevitable path of national evolution. In the modern nation state, history is sometimes rewritten in stone or steel to further consolidation and unity.

The Parisian *Grands Projets* fit into a number of French national agenda: the celebration of the bicentennial of the French Revolution, the assertion of a centralized and statist program of modernization, a bid for a dominant role in the new Europe and, not least, the tangible expression of President Mitterrand's own historical ambitions. The current Socialist regime wishes to prove to the world that its particular style of state regulation does not impede economic growth and allows for an enlightened public program of culture and education. Of course, it so happens that the Left is in power for the commemoration of the Declaration of the Rights of Man, which is publicized as a charter of universal human relevance with, we are told, an inevitable future trajectory in world events. History is thus telescoped to suggest that the current Left is the heir to all that is most idealistic about the revolution.

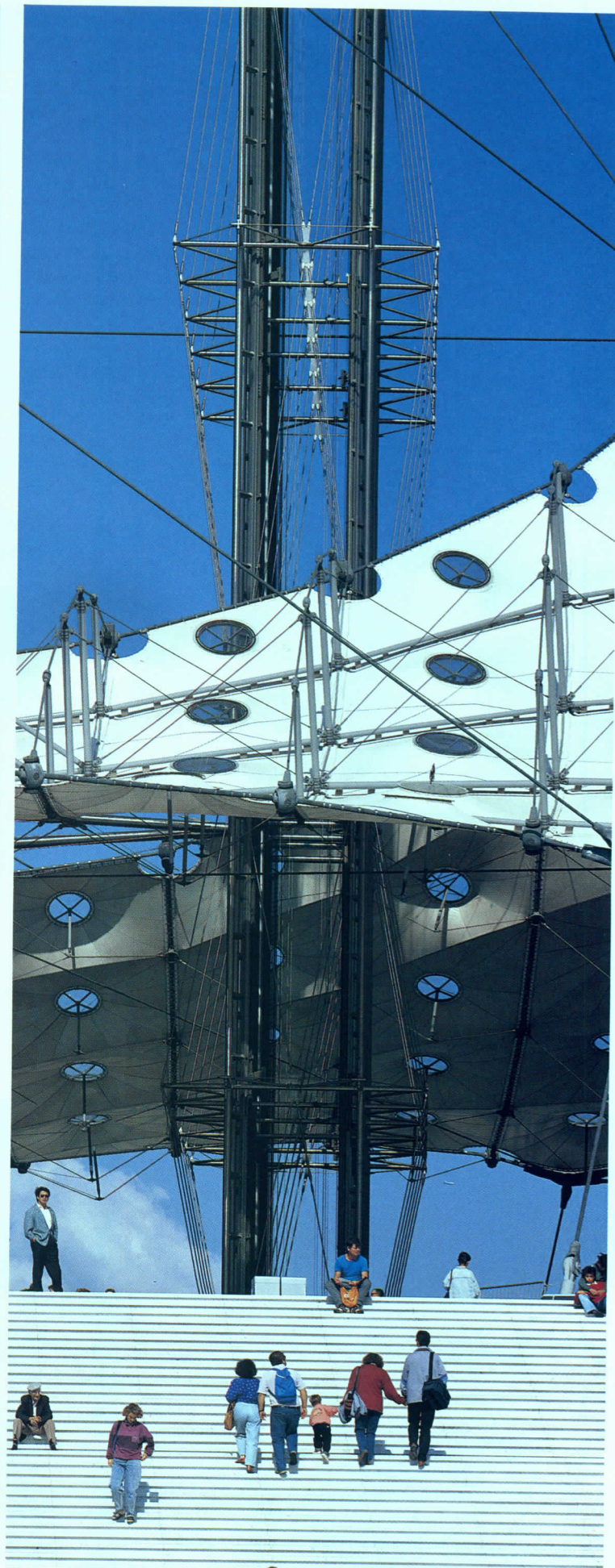
Centralization and myths of modernity

These messages are transmitted through a rhetoric combining themes that cut across political divisions such as “la gloire de la Patrie” and the international prestige of French technology, with others of a populist kind to do with the creation of a more open society in which old barriers are removed. The technological fetishism seems to have to do with the modernization of the French infrastructure in preparation for the “age of information”: the “clean” industrial revolution of high technology. Science, industrial technique, and the arts are bundled together in this mythology as if they were all part of some national plan of renewal and social emancipation. It seems that this is one of those “popular” regenerations to be engineered from above.

Centralization is an old French theme. Under both monarchy and republic, Paris has affirmed its place as head of national decision, head of empire, and core of national memory. As the most recent monumental arrivals, the *Grands Projets* are able to draw upon long-existing patterns of association in the cityscape, which itself emerges as a palimpsest of past state decrees and political symbols. These days, the centralization of cultural and political power is restated in terms of a mechanistic or, more



The Arab World Institute by Jean Nouvel.



Canopy beneath the great Arch of La Défense.

precisely, a cybernetic model. The metropolis is treated as a hub of information or as a database. In such a scenario, the *Grands Projets* emerge as monumental, collective machines dispensing directives, services, "culture" to all corners of the nation. The recently proposed *Très Grande Bibliothèque* accords with this overall picture.

A cursory inspection of the *Grands Projets* reveals ubiquitous use of polished materials—reflective metal panels, layers of glass—mechanical metaphors, and gadgetry. Certain of the projects delight in the direct power of primary forms such as the cube, the pyramid, and the sphere, while others flaunt an esthetic of fragmentation. Gestures derived from the prototypes of the heroic years of Modern architecture, 1920 to 1935, abound, as do references to Russian Constructivism. But it would be too simplistic to suggest the existence of some supposed monolith, the *Style Mitterrand*. For one thing, many of the visual conventions upon which the *projets* rely for their visualization of the "open public institution" seem to draw upon the legacy of that other cultural mechanism of a decade and a half ago, the Georges Pompidou Center. For another, there is little evidence of a simple equation between ideology and form, and some evidence to imply a lack of esthetic consistency on the part of those in power. Finally, each architect has his own intentions, pedigree, and problems to solve.

The historic axis: the Pyramid

The Grand Louvre and the Arch of La Défense are linked to one another by the historic national axis that runs from the Louvre, ancient seat of power, to the post-war skyscrapers of La Défense. Johann Otto von Spreckelsen's flat-topped version of an urban gate is a gesture of continuation—emphasizing its 30-story opening—rather than of termination. Thus, the Pyramid and the Arch of La Défense are contrasting and complementary, each the embodiment of a primary and ideal architectural form—pyramid and cube—rich in possible historical resonances, and both of them are expressed as high-tech, minimalist, abstract objects. But there the similarities cease, for the pyramid is a transparent tomb of past glories in which the main axis is vertical, underlined by the column beneath the apex where the Victory of Samothrace may one day stand. The Arch is a sort of window into an unknown future that science may help to discover and determine. The pedigrees are also different. Pei's design belongs to an American corporate lineage of mechanistic slickness. Spreckelsen's design is a transformation of themes derived from Le Corbusier, Kahn, and Utzon. The Arch, arguably, is stronger in its form and deeper in its meaning.

One may not go all the way with the French popular press in attributing Pharaonic aspirations to President Mitterrand, but the fact is that pyramids are bound to evoke both funerary associations and imperial ambitions. Cognoscenti will no doubt wish to link Pei's project to the glazed pyramidal visions of the Soviet architect of the 1920s, Ivan Leonidov, to certain images of Claude-Nicolas Ledoux, or to Napoleon's Egyptian adventures. Pei's precise intentions in using a pyramidal form remain veiled, but he probably thought of it as a primary volume of no specific stylistic association.

The view from the new concourse up through the net of steel and glass toward the sky and the adjoining encrusted classical facades of the "old" Louvre is memorable, although the long lines of people outside suggest that there is a bottleneck on the landing or the stair. Pei's architectural language tends to rely upon a simple geometrical diagram in plan that allies to impeccable craft in materials, but a middle scale of articulation is

missing here: in the lobby, for example, there are some hesitant expressions of load and support, while the hovering soffit crashes uncomfortably into the central pillar. The slender spiral stair is scarcely adequate to the ritual of descending beneath a pyramid, especially just after leaving one of the greatest urban axes in the world, and the cylindrical elevator looks as if it must have been slipped in by Jacques Tati to undermine any chance whatsoever of seriousness. Similarly, the escalators suddenly transfer us from the gravity of the public building to the glitz of the chic international hotel.

Of Mies van der Rohe it was sometimes said that he selected a limited number of problems and solved them thoroughly while leaving others out of account; a similar point can be made about Pei's Louvre. A pyramid is symmetrical in every direction, but the site is subject to uneven pressures from the context; even the route into the structure involves a frontal approach, a diagonal transition, and a spiraling descent. As for the crucial joint between the axis of the pyramid and that of the Tuileries-Champs Élysées, Pei simply masks the problem with a traffic island. And this is not even to mention the other slight deflection in the immediate vicinity, that onto the axis of the Cour Carrée. This variety of internal and external pressures might have led to an enriching set of counter-themes in the architecture, but such issues were out of Pei's range. The result is a simple form and a one-dimensional idea: a building that is elegant but without conceptual richness; direct, but without the timeless presence of the classic work.

Significant content, significant form: the Arch

Of all the *Grands Projets*, Spreckelsen's Arch of La Défense is probably the strongest formally. To maintain visual tension in such a huge object is extremely difficult. Life is given to the form by shifting it slightly from the approach axis and playing it against the curved roof of an adjacent building. This move also accommodates subterranean rail lines, echoes the shift at the Louvre end, and gestures across the rooftops toward the Eiffel Tower. Moreover, despite the minimalism of its forms, the Arch compresses a number of associations appropriate to its original function as a "carrefour" or crossroads of international communications. (Now it will be used for commercial offices and parts of the Ministry of Housing.) The triumphal-arch idea has been recast as a huge window into the future, a vast cube of air through which delicate but invisible webs of electronic communication may be imagined to pass. But this arch is also a huge shelter under which all the peoples of the world may meet in a spirit of cooperation and exchange. The sharp detailing of smooth glass panels and white marble have the intended effect of nobility and precision, while also alluding to the microchip. The grid of openings facing into the covered space, on the other hand, possesses overtones of classical coffering.

Spreckelsen's concept offers a grandiose assertion of confidence in information technology, and tries to do for its epoch what the Eiffel Tower did for the age of steam and steel. It will be interesting to see whether or not the Arch succeeds in capturing the imagination of the general public, for in France there is a genuine pride in such technological feats as the Concorde airplane, the Ariane rocket, the TGV superfast train, and the domesticated Minitel computer. The Arch is about such things, and might almost be a Richard Serra sculpture constructed by Aérospatiale. There is something of that heady vision of science which one finds in E. L. Boullée's sublime monument to Newton which, with a gyroscope suspended inside an awesome sphere, is

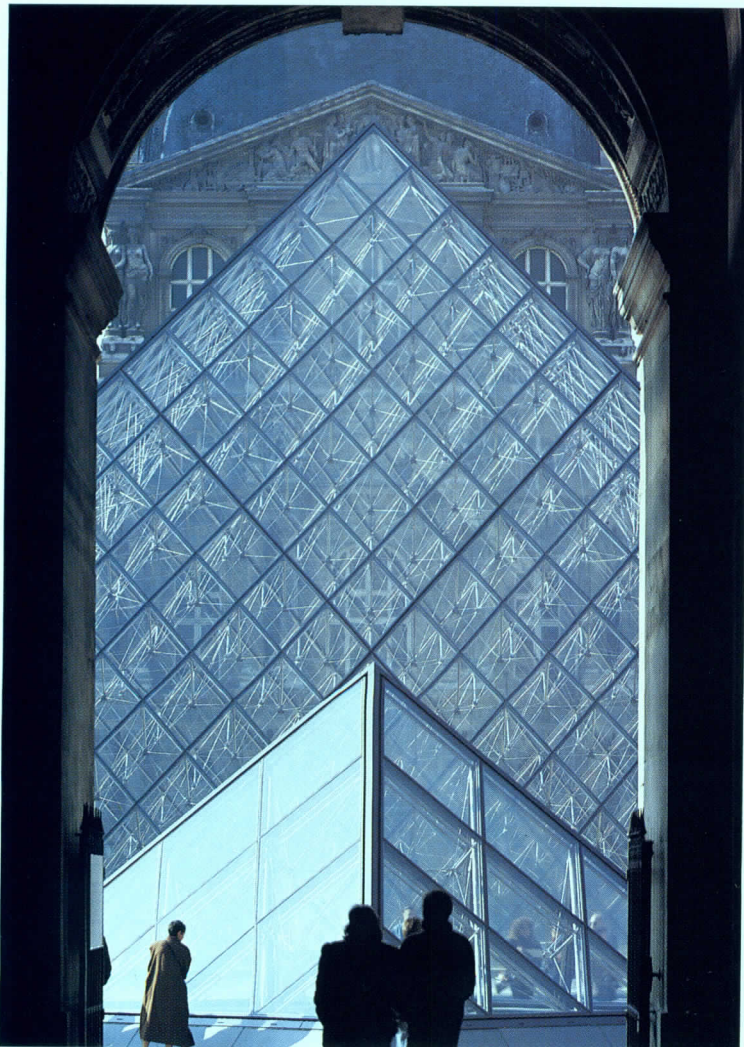
Throughout history
monuments have been
used to commemorate
great historical events,
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to communal myths, and
to legitimize power . . .



Arch of La Défense by Johann Otto von Spreckelsen.



The great Arch is set within a huge and varied plaza.



Pei's Pyramid framed by Louvre archway.



Staircase inside the Pyramid.



The Bastille Opera by Carlos Ott.



The Orsay Museum by ACT Architecture and Gae Aulenti.



The Ministry of Finance by Paul Chemetov and Borja Huidobro.

A. GOUSSARD/AR/HPRESS

an emblem of nature's universal laws. Spreckelsen's building would have been bland and overwhelming without its delicate countertheme: glass clouds that hover above this so-called crossroads of the world. The Arch avoids both the vapid historical quotations of Postmodern revivalism, and the empty Neomodernism of so much recent architecture. It blends together history and modernity, the referential and the abstract. The Arch transforms its various Modern sources—Le Corbusier's sheltering parasol in the Chandigarh High Court, Kahn's structural geometry, Utzon's metaphorical clouds floating over assemblies of people—into an authentic new statement of a classic power. The Arch thus constitutes a vital addition to the tradition of modern monumentality.

Some Grands Projets appear flaccid or confused

Unfortunately, the qualities of the Arch are not to be found in the majority of the other *Grands Projets*. The poor Bastille Opera, by Carlos Ott, which has had so much opprobrium heaped upon it since it was first selected, illustrates what happens when an effective transformation is not achieved. This ungainly structure is a neo-Modern pastiche, a pile-up of inherited elements that are reused without visual tension or philosophical conviction, and which are therefore devalued to the level of platitudes without resonance. It is to be hoped that the auditoria of this "peoples' opera," intended to supplement Tony Garnier's good but inadequate 19th-century structure, will at least function well. The false rhetoric begins with an ungainly portal and continues up to a symmetrical cleavage in the drum. Presumably, all the screen walls applied to the outside have to do with linking institution to city, but even this theme gets lost in a welter of arbitrary compositional devices. For lack of any real language of detail, Ott has plastered the entire thing with squares.

One wonders whether grandiosity and inflation of scale were explicit requirements of the architectural programs, or whether the designers themselves decided that state projects had to be that way. Gae Aulenti's stone-clad galleries on the ground floor of the Orsay Museum are heavily funereal, and the structural gymnastics of the Museum of Science and Industry, designed by Adrien Fainsilber, seem over-inflated. At times, the obsessive manipulation of technological imagery takes on a science fiction or populist character, as in the geode of the Museum of Science and Industry, which evokes world's fair architecture.

One senses a lack of new vitality in several of the *Grands Projets*, even when the design strategies behind them are reasonable. If the Arch poses as an updated version of a city gate, then the Ministry of Finance at the other end of the city seems to combine other urban images such as the wall, the viaduct, and the bridge. Chemetov and Huidobro's project is now well on the way to completion and will serve the bureaucracy that was once housed in a wing of the Louvre. The designers were faced with the tricky problem of inserting a vast amount of office space into a linear strip running between the Gare de Lyon and the Seine, but without resorting to a tower. They also needed to find some way of giving the Ministry a suitably honorific image to distinguish it from a mere commercial structure. Their generating idea was of a bridge—a megastructure on the scale of railway lines, the Eiffel tower, or the Bir Hakim viaduct at the western end of the city.

The architects have made very big forms which have to be unified and broken down to human scale if the result is not to be overbearing or lacking in coherence. The designers of the Minis-

try have attempted to engage the life of the Seine through a ministerial loggia suspended above the water, but the monumental treatment of this end of the structure only serves to underline the frightening image of an aloof and inflated bureaucracy. The pomposity of the scheme stems in part from the lack of a clear architectural language. The main horizontal block is cumbersome in its proportions and confused in its expression of load and support. The whole thing is desperately in need of an intermediate rhythm between the scale of the little windows and that of the whole. What we have is an assemblage of latter-day preoccupations: post-Neorationalist linearity, some appliques of Le Corbusier in a Constructivist mode (the Centrosoyus?) and a dressing of Modern and Postmodern commercial detailing.

Symbols or signs?

The Parc de La Villette offered the opportunity to explore a new landscape vocabulary and an architecture lighter and more playful in tone. It is still too early to gauge how Bernard Tschumi's little squadron of red cubic toys will look when the trees are in and the paths are finished. It is, therefore, difficult to say if this

will be "a new vision of the urban park for the 21st century" as the brochures claim. For the moment it is clear that the designer has rejected postcard images in favor of a continuous field of regularly articulated space. Tschumi employs variations on set formal themes independent of function, another feature of contemporary architectural thought. La Villette has received some notoriety in the intellectual boudoirs of Paris and New York under the trendy heading of Deconstructivism, but as no two people can agree about the meaning of this term, it is probably more useful to point out that Tschumi has used old-fashioned composition along intuitive lines, and that he is much more of an *auteur* than he may admit. His follies obviously constitute witty revivals and mannerizations of Agit-Prop Constructivist stage sets from the Soviet avant-garde of the 1920s. This little flirtation with historical revolutionary imagery must be especially delicious to members of the "caviar left," particularly those who have absorbed enough of cultish literary criticism to sense here a "discourse on the impossibility of discourse" that effectively reduces a past polemic to a present parody. But, as for the good folks of La Villette, they may just want a spot to sit, to linger, to unwind from cramped urban conditions.

Portzamparc's City of Music introduces yet another strategy for dealing with the complexities of a large urban complex: that of fragmentation. The architect has broken the program—which includes a national music conservatory, a concert hall, an instrument gallery, and the Music Education Institute—into pieces, then reassembled them in a pattern of radial and orthogonal lines of circulation, with the intention of mediating between forces in the urban context, old structures on the La Villette site, and the adjacent geometries of Tschumi's plan. To judge by the drawings, this is an architect who uses metaphors as generators. A sinuous pergola behind the conservatory, for example, is supposed to be a musical analogy (a rather belabored one at that). The spiral in the plan of the concert hall, which gradually opens out towards the park, is supposedly an "acoustic" form inspired by the shape of the ear. The resulting plan forms, which include ovals and angled flanges, are juxtaposed in a collage which is nonetheless given a monumental treatment through the amplification of structure. One problem with this approach is that a geometrical theme chosen for associational reasons may severely inhibit the functioning of spaces so determined. It will be interesting to see how an oval-shaped performance space,

The Grands Projets
reveal ubiquitous use of
polished materials—
reflective metal panels,
layers of glass—
mechanical metaphors,
and gadgetry.

with seats on all sides, really works. Another problem is even more fundamental, and is contained in Le Corbusier's pithy phrase "the illusion of plans": at this stage, where only part of one of the buildings is standing, it is hard to say whether Portzamparc possesses the necessary skill to translate his agenda into reality.

Technological romanticism versus the pragmatic

The Arab World Institute by Jean Nouvel and others is a building that is resolutely involved with mechanistic metaphors, analogies, images, and details. Everything possible has been done to avoid a condescending, "orientalist" statement in crystallizing a program that is to do with delicate issues concerning relations between France and several Arab countries, some of them ex-colonies, others essential suppliers of French petroleum. In its relentless affirmation of technical progress, it incorporates, here and there, hermetic allusions to Arab and Islamic themes. A spiral tower of books in the library, visible behind the glazing of the west end of the main slab, is an iconic window between cultures within this machine for enlightenment. The primary mass of the building curves in response to the sweep of the Seine, and a thin slab picks up the street geometry. A court is dropped in between these primary elements and opens out toward the nearby cathedral of Notre Dame by means of a narrow slot.

The Arab World Institute draws upon a worthy pedigree of buildings combining slab and attached curve (Le Corbusier's Pavillon Suisse of 1930, for example) and contains an elaborate repertoire of stylistic devices derived from the High Tech typical of Norman Foster and Richard Rogers. The building certainly has its fine moments, especially in the quality of light diffused by its multiple transparencies of glass. But despite all the dazzling reflections, the shimmering materials, the clever visual distortions of the main slab, and the celebration of technology, the Institute still leaves the impression that it is unduly obsessed with style, not to say styling. The result is a cosmetic collage of mechanistic images and Arabizing references that lack resonance and depth of meaning. Moreover, certain elementary problems—such as the entrances, the meeting with the ground, and the internal circulation—have been left unsolved. The building reads as if it had been thought "outside-in": a diagram that responds to the riverside but in which the relationship between internal spaces and external volumes is indecisive.

Even the external moves of urban scenography raise questions. By pushing the building up toward the busy street that runs along the Seine, Nouvel and his co-designers have opened up a huge and vacant plaza on the south side that has not a trace of urbanity about it. About all one can do in this space is dodge the Mercedes of visiting dignitaries or stand gazing up at the slick curtainwall with its mechanistic mushrabiyyas. By now it should be clear that these extravagant gadgets are a solution to a problem of the architect's own making, since it was his choice to present this vast area of glass to the sun. Absurdly, it seems that the spaces behind have to use electric lighting in the daytime!

The quest for authentic monumentality

The rhetoric used to promote the *Grands Projets* has lingered on their progressive tone, their commemoration of the Revolution, their contributions to modernization and the public good. But their reality is more complex. It is impossible to disassociate them from the massive centralization of power and the attempt to legitimize this power through the use of grandiose architectural statements.

As icons glorifying a centralized vision of culture, the *Grands Projets* inevitably raise difficult questions about the allocation

of resources and the sacralization of technology. France is a country rich in diverse regions, but their differences, their problems, and their opportunities tend to be dwarfed by the obsession with the center. From the vantage point of the provinces, the *Grands Projets* may seem remote extravagances created by a class of intellectual bureaucrats intent upon its own proliferation. The supposed automatic benefits of high technology here implied may obscure basic conflicts between industrial society and the natural environment. As for the celebration of democratic ideals, there are already vociferous critics who reject this technocratic gigantism as inappropriate to the principle of government "by the people, for the people."

But there can be no doubt that this extraordinary cultural experiment in support of the arts, education, and museums by the state is without current parallel. At a time when English architecture (with royal assent) has regressed into revivalist sentimentality, and American architecture continues to indulge in the superficial packaging of Postmodern classicism, this official support of an essentially forward-looking esthetic deserves recognition. The obsession with mechanistic analogies—the cool

hardware of the Arch, the humorous red contraptions at La Villette, the steel network of the Pyramid, the engineering romanticism of the Arab World Institute—reflects the leanings of a technocratic mandarin class preoccupied with the emergence of a new society of services and information, and with finding a "historic compromise" between the technical and scientific ingenuity of capitalism and a degree of centralized state control.

Such patronage and social imagination are extremely rare, but in and of themselves are no guarantee of lasting architectural value. Bureaucratization of culture can very quickly become the enemy of art. The worst of the *Grands Projets* are cases in point with their bombastic gestures, intellectual pretension, ignorance of human scale, and lack of symbolic

substance. There has always been more to modern architecture than technical virtuosity, structural gymnastics, shiny finishes, and style.

Profound architecture crystallizes the aspirations of its society and, with durable forms that are capable of outliving the initial conditions of creation, translates myths into symbols. No doubt certain of the *Grands Projets* will settle into the public mind as icons, just as did the Eiffel Tower. But dramatic images and durable architectural quality are not one and the same thing. Of all the *Grands Projets*, it is the Arch that stands out as having combined symbolic substance, formal power, and technical elegance. It attempts to give to the France of the 1990s what Le Corbusier gave to India in the 1950s and Kahn to East Pakistan (now Bangladesh) in the 1960s: a timeless, modern civic architecture. Meanwhile, the other sleek machines may serve their society and express the aims of the state, but they do not take the art of architecture to the highest levels. □

L. BOEGLY/ARCHIPRESS



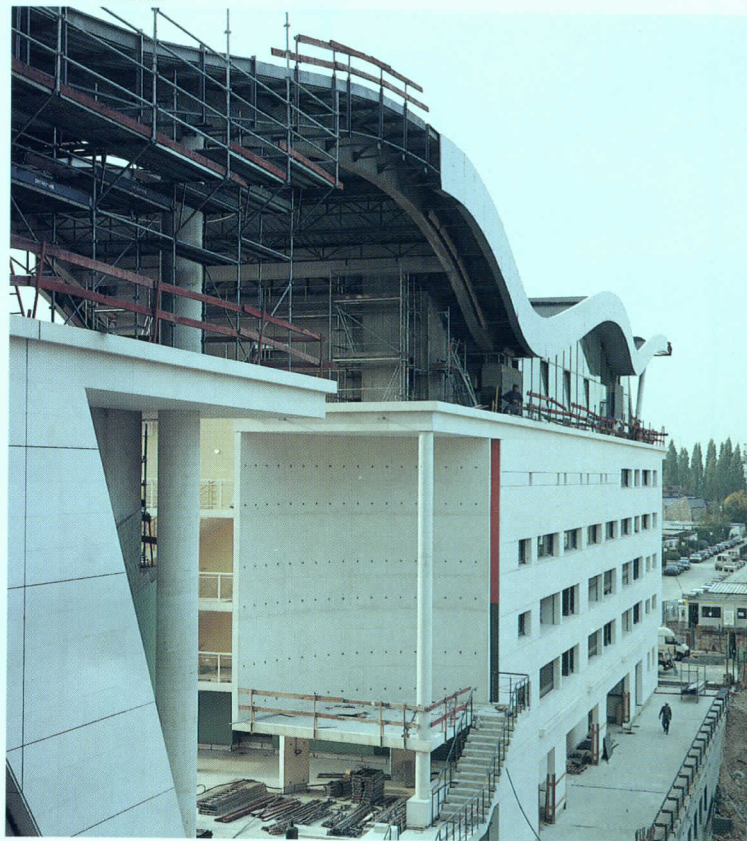
La Villette park by Bernard Tschumi, coordinating architect and chief designer.

Architectural historian and critic, William J. R. Curtis is the author of Modern Architecture Since 1900 (Phaidon 1982; Prentice-Hall 1983), and which in its 1987 second edition included an addendum Search for Substance: Recent World Architecture. He also wrote Le Corbusier: Ideas and Forms (Phaidon 1986; Rizzoli 1987), and, most recently, Balkrishna Doshi: An Architecture for India (Rizzoli 1988). Curtis was awarded the medal of the Society of Architectural Historians of Great Britain in 1984, and the outstanding critics' prize of the the Comité Internationale d'Architecture in 1985. In June 1989, Curtis was awarded a medal for his book on Doshi at the World Biennale of Architecture, "INTERARCH 89."

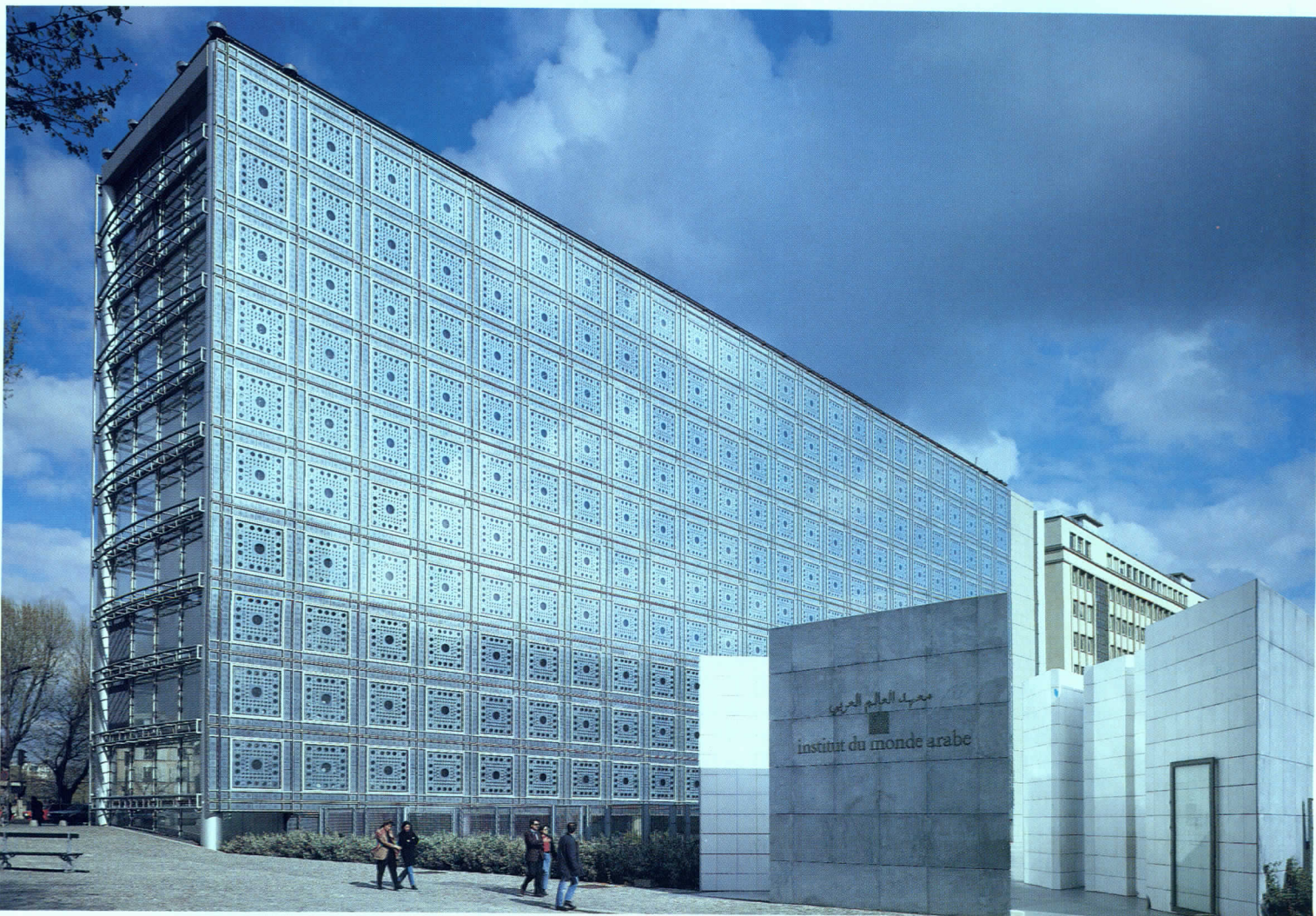
This critique by Curtis of the Grand Projets was completed in November 1989. An earlier version was published in the September 1989 edition of the Parisian architectural journal "Techniques et Architecture," (editor Jean Michel Hoyet).



The Museum of Science and Industry by Fainsilber.



The Center of Music by Christian de Portzamparc.



Facade of the Arab World Institute, by Jean Nouvel, overlooking plaza.

Lessons in Civility

Two schools in San Francisco exemplify the multiple challenges of melding new construction and existing buildings into a single entity, making disparate parts into a coherent whole, and inserting new institutional buildings into sensitive—even defensive—residential neighborhoods.



The Waldorf School, before additions.



San Francisco Day, before additions.

Although the two buildings on the opposite page could scarcely look less alike, they actually have a great deal in common. Both are private elementary schools in San Francisco: the San Francisco Waldorf School (top), by Tanner Leddy Maytum Stacy Architects (formerly Tanner & VanDine), and the San Francisco Day School (bottom), by Simon Martin-Vegue Winkelstein Moris. Both projects incorporate unlikely pre-existing buildings: the Waldorf School's gymnasium was originally a neighborhood market (before photo, above left), while the San Francisco Day School is a remodeling and expansion of an early 20th-century mortuary (above right). Most significantly, however, both schools are in established residential areas—Waldorf is located in Pacific Heights, San Francisco Day on the edge of the Western Addition—not eager to accept expanding institutional uses in their midst. Taken together, the two schools have a great deal to say about the problems of neighborhood assent and acceptance—issues that have become an integral part of building in dense American cities.

In San Francisco, where the planning process is particularly exhaustive, each neighborhood has a great deal of control over its own destiny, and a single objection can bring a project to a halt for months, if not forever. Clearing a site and building from scratch frequently involves going through a time-consuming regulatory gauntlet, which is perhaps the principal reason

that both schools featured here incorporate pre-existing structures. (Waldorf's expansion, it should be pointed out, *did* require the removal of an old house, decrepit to the point of near-collapse. Although the city's landmark commission voted against demolition, it was ultimately overruled by the planning commission, allowing the project to proceed.) Given the neighborhoods' sensitivity, diplomacy on the part of client and architect played a key role in both projects. It was also a considerable force in each school's ultimate design.

In situations of this kind, contextualism is not just desirable; it is mandated. At San Francisco Day School in particular, the architects had to begin with a critical analysis of the neighborhood and determinants of its character like scale, colors and materials, and distinctive or repeated forms. For both projects, design became largely a matter of knitting together existing buildings and new construction into a unified, coherent whole, while at the same time finding ways to weave the schools unobtrusively into their larger surroundings.

Seeing a proposal through in this manner is especially demanding, and while any infill project tends to militate against grand gestures and bold statements, it is increasingly the only way of building in tightly packed urban places. Happily, the results, as these two schools impressively reveal, need not bespeak compromise.

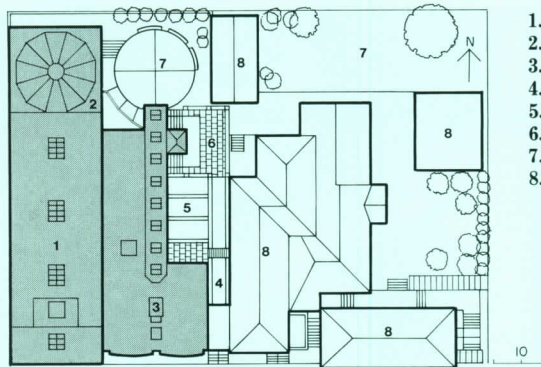
DONALD J. CANTY



SHARON RISESDORPH



ROSLYN BANISH AND LAURIE BLACK



1. Multipurpose building
2. Eurythmy room
3. Classroom
4. Entry ramp
5. Garden
6. Plaza
7. Playground
8. Existing school

SHARON RISEDORPH PHOTOS



INTRICATE ASSEMBLY

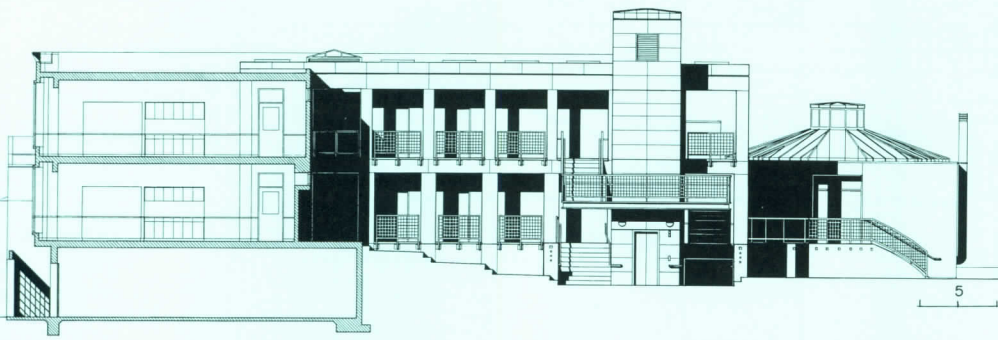
The Waldorf movement was founded in 1913 by Rudolf Steiner, the Austrian-born social philosopher who believed that rigorous exercise of the intellect could assist in the primacy of man's spirituality over materialism. The movement has grown in Europe and the United States, and today encompasses over 300 schools—some located in buildings of strange and compelling forms. Although the San Francisco Waldorf School follows Steiner's philosophy, with its emphasis on creativity and European culture, its buildings are subdued in deference to its Pacific Heights neighbors.

In planning the school's 12,500-square-foot expansion, architects Tanner Ledy Maytum Stacy had to retain a series of hipped-roof classroom buildings on the eastern end of the site (far right in photo above) and remodel a market, located on the parcel's western flank, that extended farther into the site than would have been allowed under San Francisco's new-building code. The architects saved the market's shell, raised its roof, and gave the structure a new glass and metal facade.

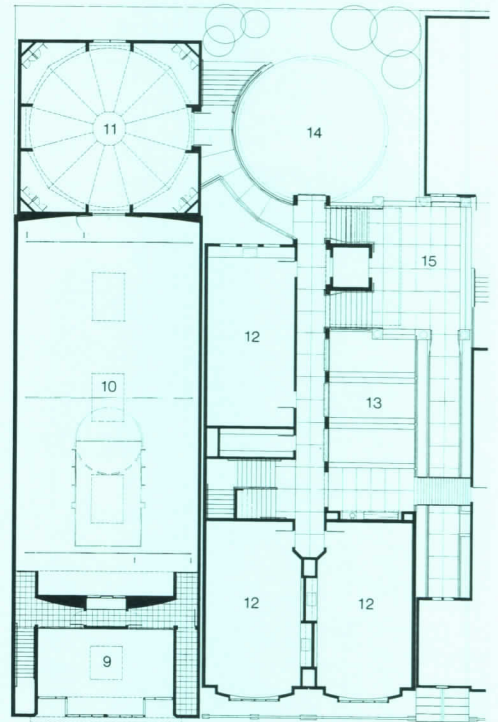
Midway between the market and the earlier classroom buildings, the architects inserted a new three-story classroom wing whose quiet bowfronted facade could be the frontispiece to a low-rise apartment building. Sheathed in white-painted stucco with pale blue metal trim, this structure houses six pleasant, noninstitutional classrooms. Existing and new elements are joined at ground level by a concrete and metal screen that bears a canopy denoting the school's front door. Beyond the entry a ramp widens into the renovated complex's most surprising space—an attractive rear courtyard (top photo previous page) that has a distinctly European flavor. The courtyard's most striking feature is an elevator tower (like the ramp, required for access by the disabled), which the architects dub the campanile of their "village." A stair wrapped around the tower has a cantilevered landing that can be used as an overlook to the entire complex or as a speaker's platform for outdoor assemblies.

Perhaps the most impressive of the new school's interiors is a dance studio on the

San Francisco Waldorf School
San Francisco
Tanner Ledy Maytum Stacy, Architects

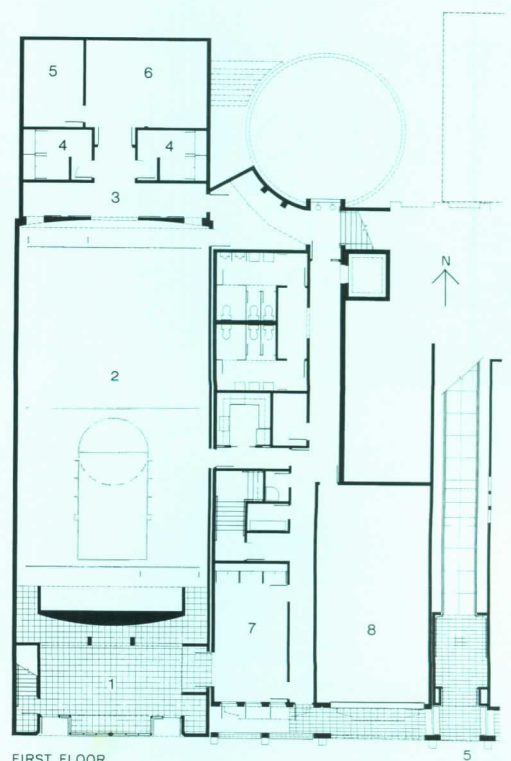


A new public building (far left in large photo opposite) utilizes the shell of an existing market. A 12-sided faceted dome was installed over the market's second floor (below), creating a top-lit circle-in-the-square volume for the study of eurythmy, a dance form developed by Rudolf Steiner. An opening in the room's south wall establishes a visual link between the eurythmy room and a new multipurpose space (bottom).



SECOND FLOOR

second story of the market. Topped by a 12-sided faceted dome (above), this round space almost mandates Steiner's favored circle dancing, known as eurythmy. Although the dome unfortunately cannot be seen from the street, it does make a pleasant contribution to the views of neighbors. The other significant space in the former market is a multipurpose room, a cheerful two-story-high space used for a variety of cultural and athletic events. **D. J. C.**



FIRST FLOOR

1. Lobby
2. Multipurpose room
3. Backstage
4. Dressing
5. Mechanical
6. Storage
7. Music room
8. Garage
9. Lobby below
10. Multipurpose below
11. Eurythmy room
12. Classroom
13. Garden terrace
14. Playground
15. Plaza

*San Francisco Waldorf School
San Francisco*

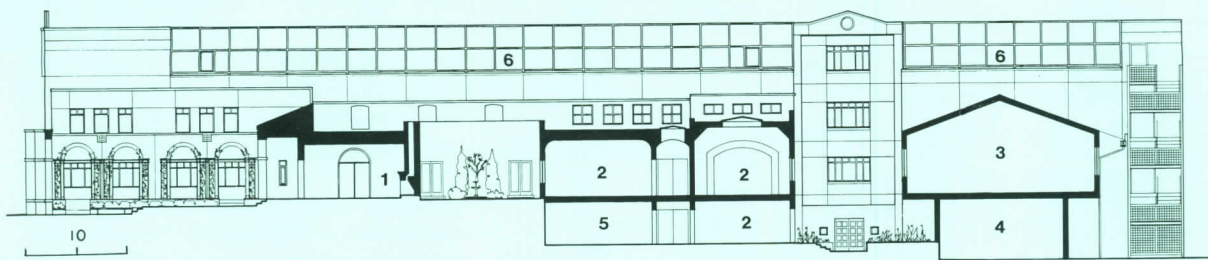
OWNER: Henry S. Dakin

ARCHITECT: Tanner Leddy Maytum Stacy—William Leddy, partner-in-charge; Frank Barkow, David Hruska, Ben Pinney, Peter VanDine, project team

ENGINEERS: Steven Tipping & Associates (structural); Design Engineering Services (mechanical); Hansen & Slaughter Inc. (electrical)

LANDSCAPE ARCHITECT: William Peters

GENERAL CONTRACTOR: Dome Construction Corporation



1. Entry
2. Classroom
3. Multipurpose room
4. Mechanical
5. W. C.
6. Outdoor play area

ROSLYN BANISH AND LAURIE BLACK PHOTOS



FRIENDLY PRESENCE

Mortuaries, says Cathy Simon, make surprisingly good schools. They have many special rooms with high ceilings, decorative elements, and other architectural characteristics that can enrich an academic institution's public areas. They also have ancillary spaces that can be used for a school's administration.

The mortuary that forms the core of the San Francisco Day School was erected in 1933 and is located in an urban gray area, midway between the city's Western Addition and Richmond districts. The first phase of a three-part project by Simon Martin-Vegue Winkelstein Moris to expand this private elementary school involved remodeling the mortuary's six funerary chapels for special uses shared by the entire school: library, art studio, science and music rooms, a gymnasium.

The second phase called for the addition of a large art studio on the southwest corner of the site (above). This commodious extension gives the school a monumental urban presence on Masonic Avenue, a busy thoroughfare to the west. It also of-

fers a light-filled interior, articulated with a high cross-vaulted ceiling and oversized windows on three sides, that feels as if it might have been a chapel itself at one time. The final, and most ambitious, phase of the expansion encompassed construction of an academic wing on the northern portion of the site, also fronting Masonic (large photo opposite). The new construction essentially surrounds the mortuary on two sides; together, existing and new take up very nearly all of the site, requiring the addition of a rooftop play area over the academic wing.

In order to ensure as much natural light as possible throughout the remodeled complex, the architects organized the school's plan around three outdoor rooms, each exhibiting a distinctive character. Along Masonic, between the academic wing and the new art studio, SMWM created an entry court at the point of the mortuary's original entrance. This welcoming space (bottom photo page 85) features handsomely patterned stone paving, colorful stair-riser tile, and a metal loggia whose delicate

San Francisco Day School
San Francisco
Simon Martin-Vegue Winkelstein Moris,
Architects



Among the outdoor spaces that take advantage of San Francisco's benign climate are the school's entry court (left), a large rooftop play area over the new academic wing that provides much-needed recreational space on the school's restricted urban site (below and bottom left), and a long narrow courtyard that forms something of an exterior corridor along the original site of the mortuary's driveway (bottom right).



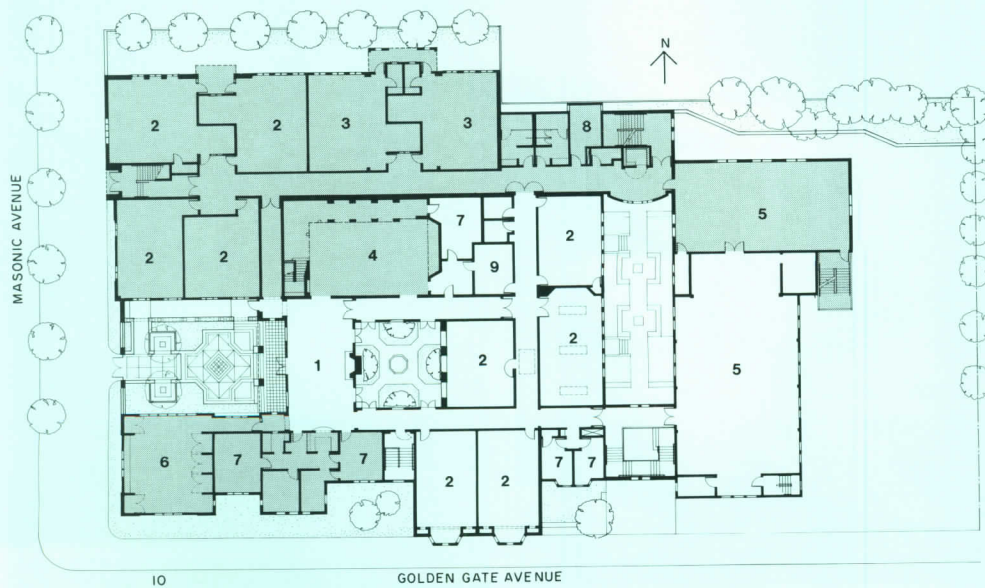
round-arched form refers to the mortuary's Spanish Colonial Revival architecture. Beyond a graceful loggia is the school's lobby, the only interior space of the mortuary carried over without substantial change. With its dark wood beams and trim and tile floor, this room forms a striking contrast to the new and remodeled quarters beyond.

The second outdoor space is the mortuary's original courtyard, a pleasant windsheltered refuge that has been embellished with plantings arranged around a small fountain. The third, and largest, courtyard was once the driveway used by hearses entering and leaving the mortuary (far right). Running alongside the chapel-turned-gymnasium, it is a deep, urban space that exhibits a pleasing European character.

The architects' successful attempts to knit the complex into a cohesive whole while avoiding a monolithic institutional appearance are most evident along the building's southern elevation, where individual programmatic elements read as a



San Francisco Day School's richly embellished lobby (right) is the only mortuary interior left intact in the architects' three-part renovation. A new corner element housing an art studio overlooks the intersection of Masonic and Golden Gate avenues through arched tripartite windows (below). To add shelf space for the school's library, SMWM inserted a mezzanine into one of the mortuary's original chapels (opposite).



- | | |
|----------------------|--------------------|
| 1. Entry | 6. Art room |
| 2. Classroom | 7. Office |
| 3. Kindergarten | 8. Conference room |
| 4. Library | 9. Faculty lounge |
| 5. Multipurpose room | |

series of separate gable-ended forms, almost like a row of houses. Beginning with the corner art studio, there is an upward progression of scale along Masonic Avenue that culminates in the larger mass of the academic wing. The rooftop playground of this two-story volume is signaled on the street by a metal screen that echoes the arch-under-gable motif of the school's windows.

D. J. C.

*San Francisco Day School
San Francisco*

OWNER: San Francisco Day School
ARCHITECT: Simon Martin-Vegue Winkelstein Moris—Cathy Simon, principal-in-charge; Katharine Anderson, project architect; William Bondy, project manager
ENGINEERS: Steven Tipping & Associates (structural); Lefler Engineering (mechanical); Mahony & Myer (electrical); Wilsey & Ham (civil)
LANDSCAPE ARCHITECT: Richard Vignolio
GENERAL CONTRACTOR: Apersey Construction

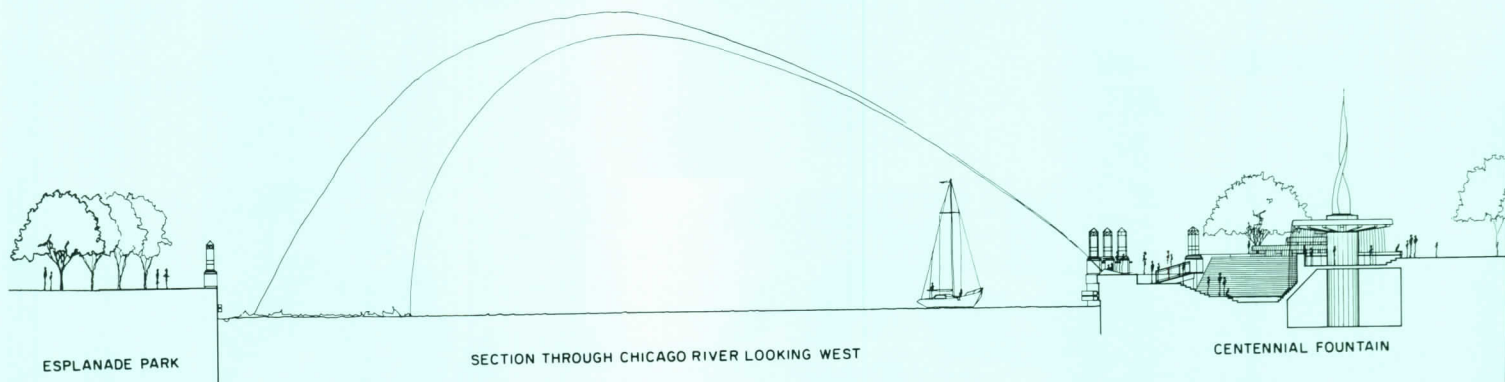


LIQUID SYMBOL

Centennial Fountain is Lohan Associates' symbolic salute to the 1889 reversal of the Chicago River.



A water arch across the Chicago River performs for passersby.



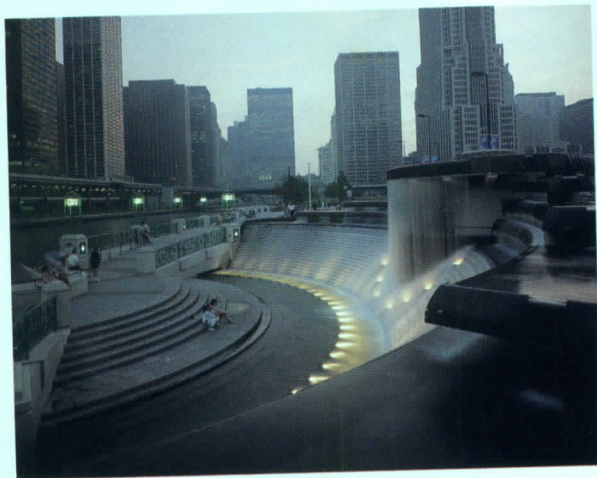
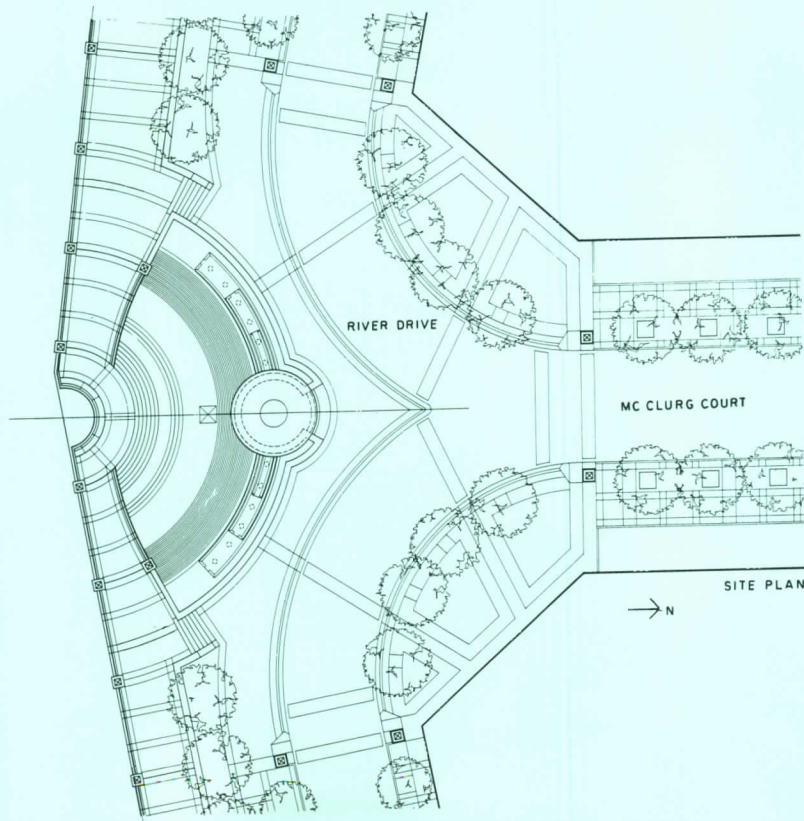
Lohan Associates' design for the Centennial Fountain in Chicago echoes lines in Theodore Roethke's celebrated poem "The Far Field," where he wrote of how "The river turns on itself," of "water quickening before a narrow channel/When banks converge," and of "A ripple widening from a single stone/Winding around the waters of the world."

"I wanted to symbolize the natural phenomenon of water—how it comes from one source, spreads, and goes back to another," Dirk Lohan explains. For its 1989 centennial, the Metropolitan Water Reclamation District of Greater Chicago commissioned Lohan to design a fountain, located at the point where the Chicago River and Lake Michigan converge, that would commemorate the District's highly lauded feat of reversing the river's flow. Prior to 1889, the Chicago was the city's main sewage channel, and it flowed directly into the lake. To remedy this unhealthy situation, the District dug a channel that connected the Chicago with the nearby Des Plaines River and installed a series of elaborate locks, permanently reversing the Chicago's direction. The fountain is situated within sight of

those massive locks, and has a prominent place in the 40-acre Cityfront Center development that stretches along the river.

At the heart of the fountain is a raised platform, from the top of which water cascades down onto a series of stairs configured much like an amphitheater and illuminated at night by underwater spotlights. The water collects in a pool, where it rushes to opposite slots notched below Cityfront Center's pedestrian walkway. Beneath the walkway surface, the fountain's own system of miniature locks and pumps prepares the water for a cannon that shoots a dramatic 80-foot-high arch across the river. An observation deck, marked by a simple railing, is set back several feet from the curtain of water flowing off the main platform. Here visitors view the city skyline through the blurred haze of falling water, while bronze plaques tell the story of the engineering marvel that occurred at this juncture in the river. Visitors can also view the fountain from a more static point, a series of steps that fans down from the walkway. Every hour on the hour for 10 minutes, the water arch reaches nearly three-quarters of the way across the 220-foot-wide river.





Underwater spots light the fountain at dusk.



A water cannon propels the jet 80 feet high.

In its projectory, the arch points a decidedly wet finger at Illinois Center, the 20-year-old development of office buildings and hotels that was meant to revitalize the river edge. The dense, and some think too austere, project failed to attract pedestrians to the water's edge; the arch, by contrast, generates a sense of animation and reaction on that otherwise staid bank of the river. As a result, Illinois Center now boasts a well-attended outdoor sculpture park, lush landscaping, and many of the furnishings—aqua-painted steel light towers, patterned paving, and elaborate railings—that are endemic to the Cityfront Center pedestrian walkway across the river.

Even in a city with many architectural and artistic monuments vying for recognition as metropolitan icons—the Picasso sculpture at the Civic Center, the Chagall mosaics, the Wrigley Building, John Hancock Center, the Sears Tower—Centennial Fountain has a good chance of remaining an especially resonant and much-visited landmark. Clad in dark Vermont granite, it is sited on a slight promontory at the riverfront terminus of McClurg Court Boulevard, the chief vehicular and pedestrian

route into the residential component of Cityfront Center. The fountain and its arch are visible from Michigan Avenue and Lake Shore Drive, and a slight spray of water when one passes too close on one of the city's typically windy days makes for a memorable moment.

DAVID MASELLO

*Centennial Fountain
Chicago*

OWNER: Metropolitan Water Reclamation District of Greater Chicago

ARCHITECT: Lohan Associates—Dirk Lohan, principal-in-charge; Joe Caprile, project manager; John Arnold, project designer; Len Koroski, project architect

ENGINEERS: Gavlin & Reckers (structural); Environmental Systems Design (mechanical)

CONSULTANT: CMS Collaborative (fountain consultant)

GENERAL CONTRACTOR: Blinderman Construction Company

David Masello is a freelance writer from New York City.



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TAMING THE BEHEMOTH

Too big, too blank, too bumptious, convention centers have been the bully on the block. A new generation works to reconcile bottom-line issues with broader civic concerns.

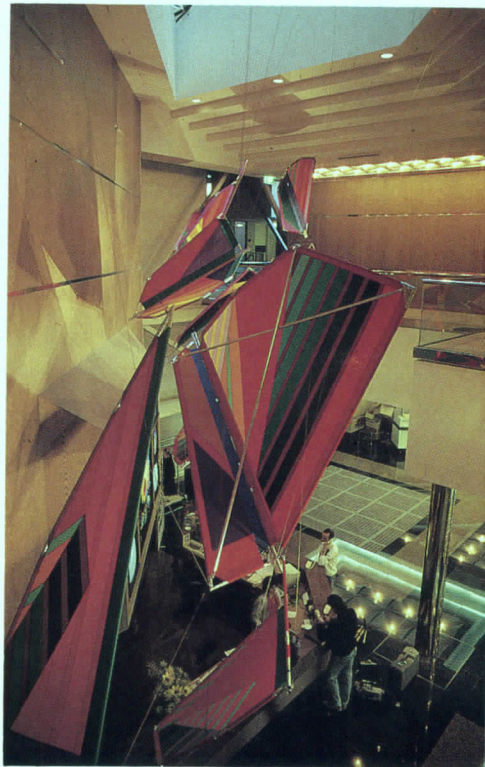
As makers and vendors of goods ranging from machine tools to instant mousse discover they can reach the self-selected sales prospects attending a convention or trade show for little more than half the cost of making individual contacts, they not surprisingly have become increasingly avid consumers of convention centers' exhibit space. According to the latest Trade Show Bureau report, the demand for such space compounded by an average of 8.4 percent annually from 1980 to 1987 and is expected to grow at the same rate through the '90s, fueled by a projected doubling of both the number of events that book exhibit facilities and the total area each requires.

At the same time, exhibit space is being added at the similar annual rate of 8.0 percent (\$2 billion in construction over the last 10 years), again with no end in sight. It is hard to think of a major (or not-so-major) city that is not building or expanding or upgrading a convention center, in the expectation of bringing in "clean dollars"—for hotel rooms and meals, shoe shines and souvenirs—to cycle through the local economy and swell the local coffers.

With supply and demand expanding in step, cities are meeting intense competition for a share of the booming business. Lately, the resulting pursuit of distinctive assets that will hone a market edge is leading to recognition of the convention center's various clienteles and the need to balance their sometimes conflicting agendas.

Since the building type emerged in the '60s and '70s, convention-center planning has been driven by functional and technical parameters established by the exhibitors and exhibit managers who are direct customers. (Most exhibits, including trade shows, are sponsored by associations, but organized by profit-making specialists.) Now planners are also concerning themselves with enhancing the experiences of more immediate users—the captive audience of convention delegates or trade-show attendees—and finally with the broad concerns of the public constituency who as taxpayers are the center's true owners.

From the exhibitors' vantage, convention-center planning has moved from an early preoccupation with the technical challenge of building and servicing vast clear expanses for exhibit areas toward ever



An aerial sculpture of vivid fabric kites soars through the foyers of the Adelaide Convention Center.

more stringent functional and support requirements. The aim is space that is not only neutral—a bare but well-equipped stage for exhibitor's wares—but universal, extending flexibility within the individual center to interchangeability with competing facilities. Both attributes also help the show manager make the most of a limited run by minimizing the time consumed in setting up and striking exhibits—a goal shared by convention-center operators intent on minimizing "down time." Their ideal of optimum space use would be a permanent three-ring circus; the next best, a continuous cycling of concurrent events, is approached by subdividing the huge exhibit spaces into separate self-contained units.

Although the exhibit halls dominate convention facilities by sheer bulk, the development of codified strictures governing their design is being accompanied by a new look at the "softer" spaces where people, whose presence occasions any exhibit, spend much of their time. Meeting rooms, for example,

are paramount for conventions and conferences, which remain the centers' prime customers. Still flexible, still subdivisible, they are also being varied in size and configuration to avoid the clumsiest compromises imposed by conflicting uses. Some, like ballrooms, may be dedicated: designed for assemblies and banquets but not also, as in many early centers, as spillover space tied to the exhibit area.

The most striking changes, however, occur in public spaces—the lobby, circulation, and prefunction areas once confined to the minimum prescribed by occupancy codes. A frequent arena of competition among centers is the entry lobby, which is transmuting into a celebratory reception hall intended to leave a memorable image. Often, the welcoming open space is also large enough to bring the bonus of quickly conveying the building's organizational pattern and major circulation paths. To reinforce the sense of orientation, signage and graphics are being amplified by "landmarks," which are coming to include not only interior features but glimpses of natural light or outdoor vistas that until recently were anathema in the rigorously internalized world of the convention center.

This breaching of the border exemplifies the overtures newer facilities are making to their surroundings, in recognition of the underlying anomaly of a public building largely reserved for private use. The economic benefits a successful center bestows are invisible to local residents; the center itself is all too conspicuous. Usually sited close to downtown hotels and other attractions, they may rip several square blocks from the urban fabric. Even when intended to revitalize the area they enter, the hermetic bulk and increased traffic—including heavy truck movement—are inhospitable to many types of neighboring development. In recompense, a growing sensitivity to their shared boundaries is evidenced by efforts to disguise the center's endless facades and reduce its forbidding scale often by buffering the exhibit hall with lower, better articulated, and more permeable public spaces at street level. A few go farther, opening the building not only visually but actually, and inviting its public owners to survey—even enjoy—the premises.

MARGARET GASKIE

BRIDGING AN EVOLVING CITY CORE

A public passage joins commerce and culture.

San Jose Convention Center
San Jose, California
MGA Partners, Architects

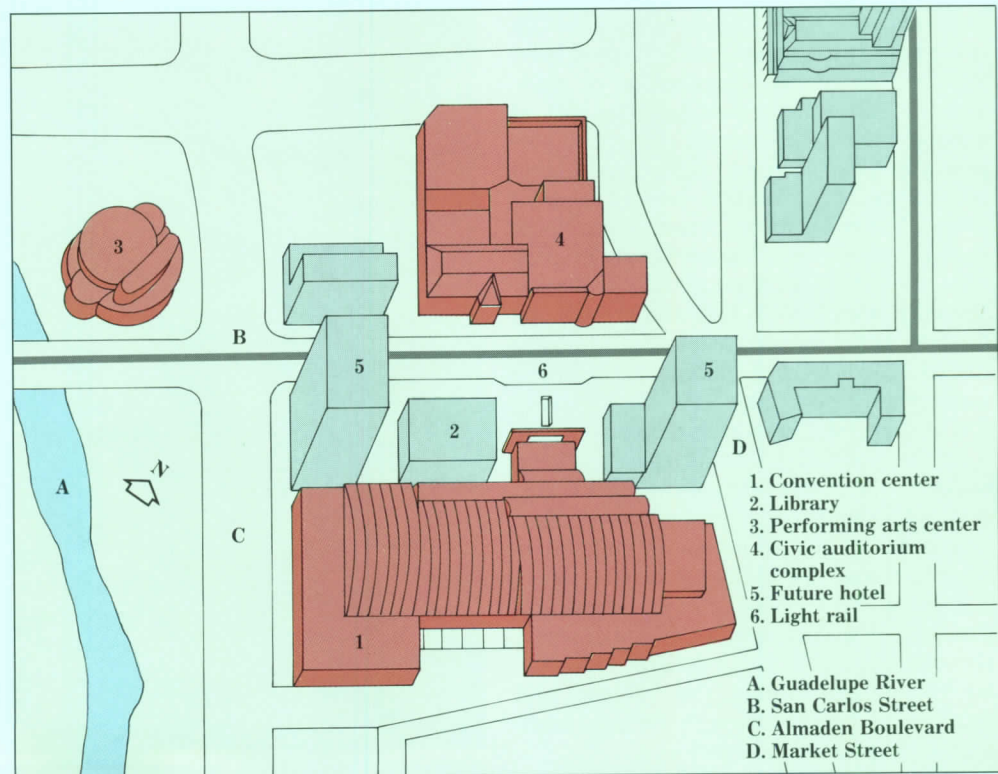
A generation after the heyday of urban renewal, San Jose's intensive redevelopment effort is raising from the ghost of a near-defunct downtown a lively capital amid the sprawl of Silicon Valley. Its most ambitious direct undertaking is the 1.1-million-square-foot convention center, which establishes an actual and symbolic bridge between the burgeoning business district and the coming attractions—theater complex, children's and technology museums, parks—of a new development precinct reaching west to the Guadalupe River.

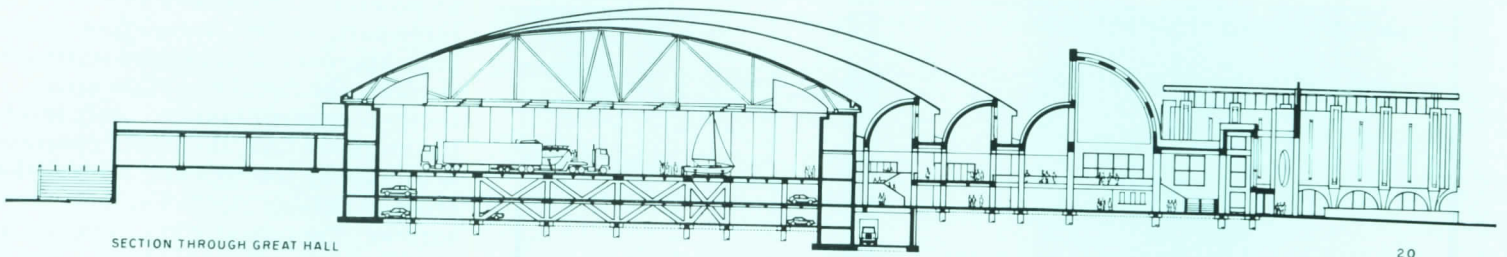
Thanks to the city's call for public areas well beyond those strictly required by its 165,000 square feet of exhibition space, the linkage is eloquently embodied in a 1,000-foot-long circulation spine at the front of the center. Forcefully drawn in exposed concrete and curtained in glass, the frontispiece encloses two pedestrian levels roofed by intersecting half vaults at a height of 47 feet. The lower level, with entrances at each end, is a public arcade eventually to be furnished with shops and kiosks but even now animated by overhead mezzanines and bridges and bathed in luminous natural light. The concourse above provides airy lobbies and lounges for both the three large halls that make up the exhibit area and the meeting rooms at each end of the building. The two-block sweep is relieved at regular intervals by jogs that reflect the ascending size of the exhibit halls, as well as by the second-level bridges, which meet outside stairs whose screenlike enclosures bring scale and articulation to the long glass facade.

Because the exhibit floor is also above grade, atop two levels of parking, the upper concourse can be readily secured to isolate public traffic from convention activities. (A secondary lobby and reception area off the west entrance allow similar seclusion for concurrent events.)

The expansive interior esplanade, the key to the center's integration with the city, gains in importance with the downplaying of the equally striking exterior. Although San Jose assembled an ample four-block site, its northern edge was in effect

Poised between two fast-developing downtown sectors, San Jose's center provides a pedestrian connector open to the public as well as conventiongoers. The formal entrance through a mural-screened portal (top opposite) is supplemented by entries at each end of the concrete-framed, half-vaulted arcade.





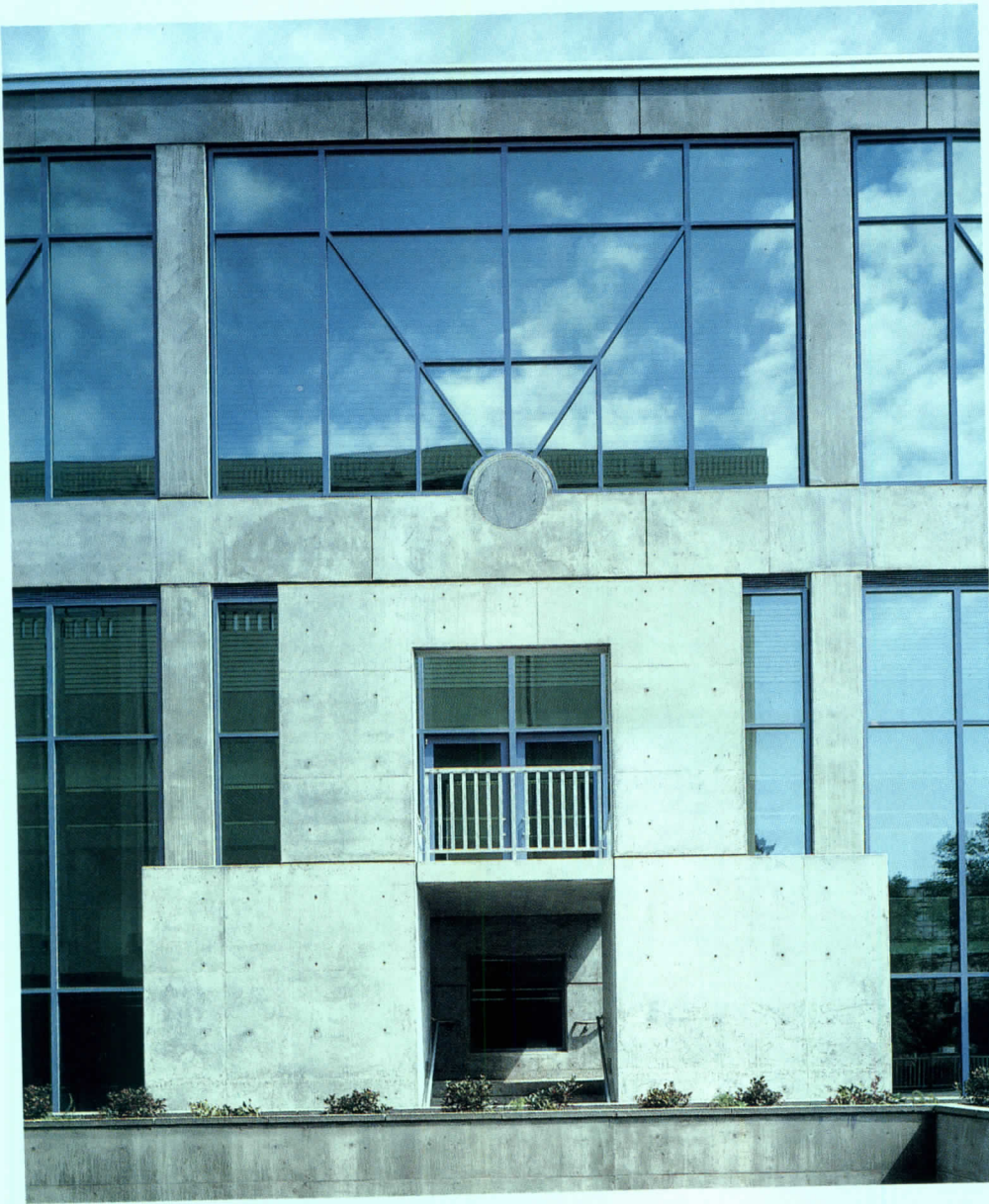
SECTION THROUGH GREAT HALL

20

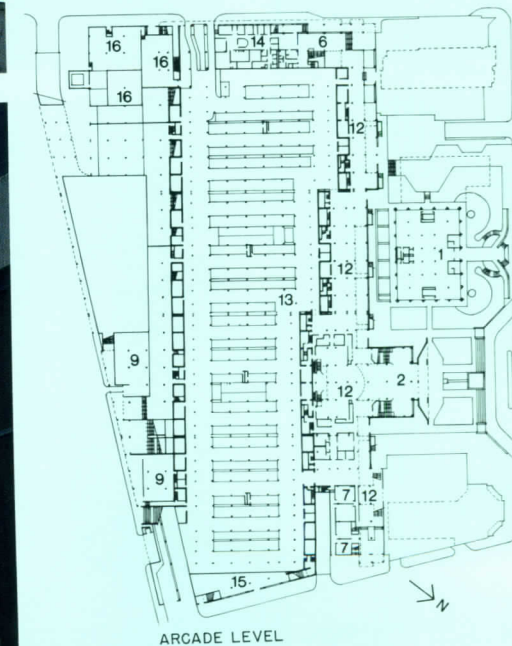
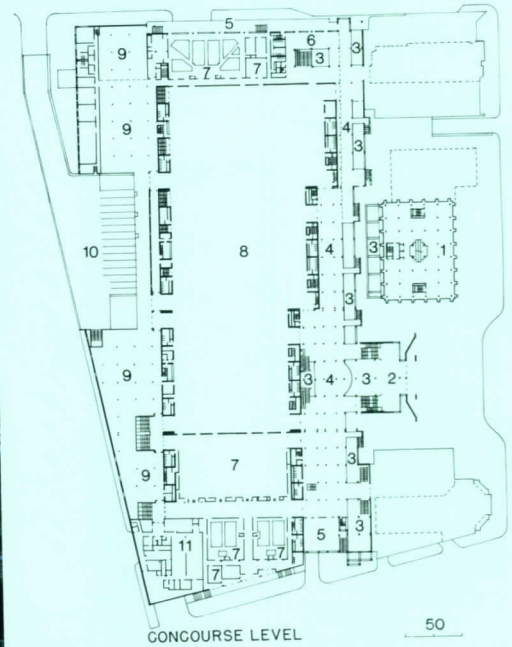


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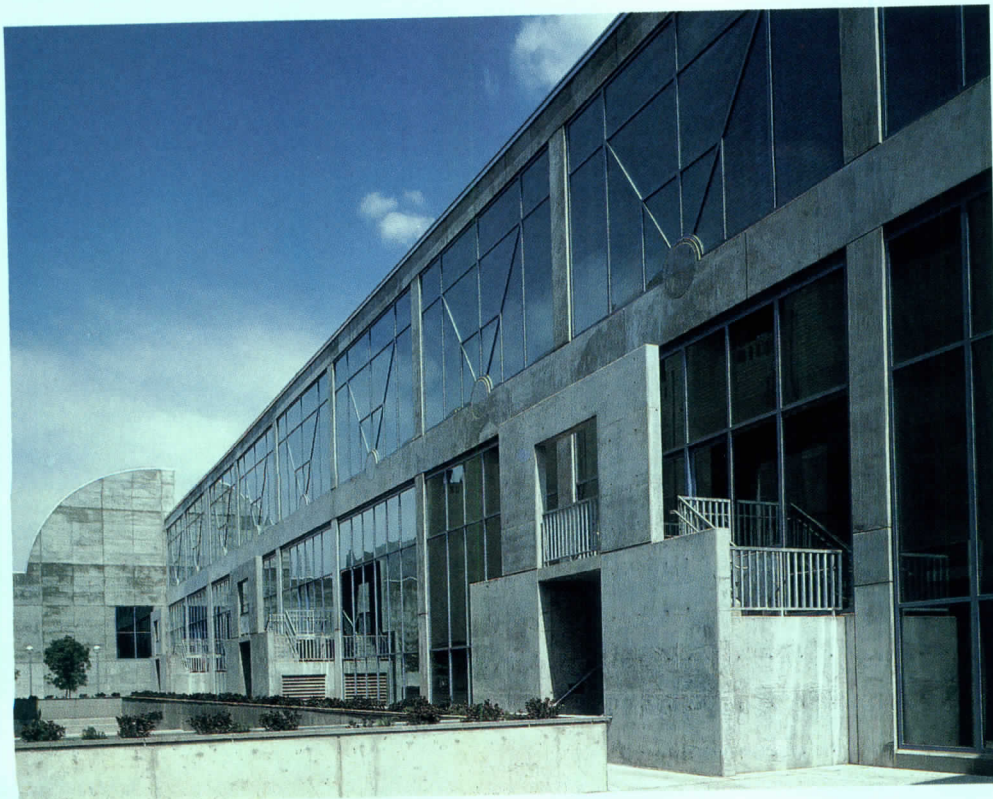




With the public arcade at ground level, the esplanade's second level is an anteroom that opens directly to the three-part, 165,000-square-foot exhibit hall. Approached via broad staircases flanking the main reception area (bottom opposite) immediately inside the entrance hall, the upper concourse is broken by lounges and bridges that cross to outside stairs. On the exterior, the concrete stair enclosures (left) become adjuncts of the forthright structural frame.



- | | |
|---------------------------|--------------------|
| 1. Existing library | 9. Storage |
| 2. Entry hall | 10. Loading dock |
| 3. Open to below | 11. Kitchen |
| 4. Exhibit hall concourse | 12. Public arcade |
| 5. Terrace | 13. Parking |
| 6. Secondary lobby | 14. Administration |
| 7. Meeting room | 15. Retail |
| 8. Exhibit hall | 16. Mechanical |



eliminated by a large and lumpish but politically sacrosanct existing library, relegating the center to midblock. When two hotels slated for the north corners of the site are completed (one, happily, is being designed by MGA Partners), the gallery's full outer facade will be obscured from all but close vantages.

The architect's riposte was to reassert a strong street presence by introducing the negative space of a public plaza defined by the library on the west and the planned hotel on the east, and reinforced by the Mission-style civic auditorium complex across the street. A restrained plain of gentle pools and fountains in an alleé of big blue-stone spheres, the forecourt explodes into a ceremonial portal dramatized by artist Lin Utzon's brilliant porcelain-tile mural. The processional continues with a projecting half-vaulted entry hall that introduces the center's main reception area.

All but invisible from pedestrian level, the formidable bulk of the exhibit space is also buffered on the side streets, where the gallery's intricate framing and doubled arcs give way to colorful two-story stucco faces brightened by balconied terraces off the meeting rooms.

M. F. G.

*San Jose Convention Center
San Jose, California*

OWNER: *San Jose Redevelopment Agency—Frank Taylor, executive director; Tom Aidala, chief architect*

ARCHITECT: *MGA Partners—Lauren Mallas, partner-in-charge; Robert Shuman, project architect; Fred Foote, Romaldo Giurgola, Larry McEwan, Dan Lau, Brett Crawford, Kirby Mehrhof, Michael Levin, Michael Avis, Don Morales, design team*

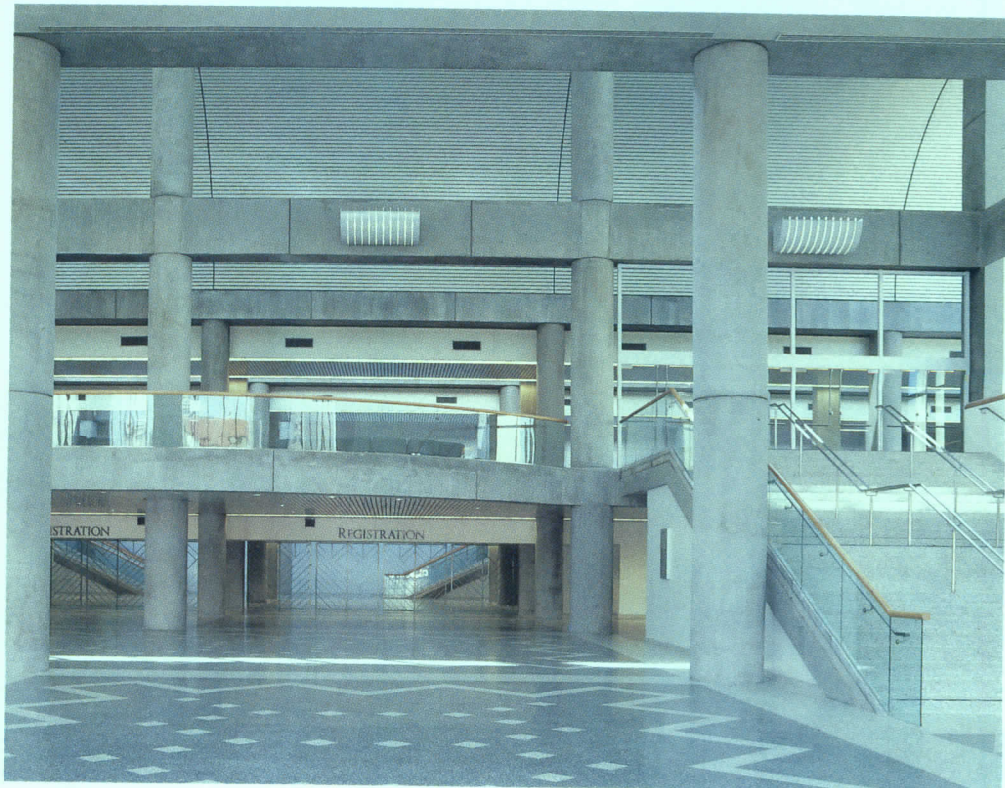
ASSOCIATE ARCHITECTS: *Daniel, Mann, Johnson & Mendenhall Architects—Robert Sowder, Ingo Pop, Paul Majka, Kim Murphy, Paul Gan, Mark Delaney, Duane Lee, Ken Klos, Greg Turner, Gordon Fong, John Lew, Wayne Bolitho, Richard Ziegler, Richard Terrones, Rocque Miller, Joe Eng*
The Steinberg Group—Goodwin Steinberg, Rob Steinberg, Don Mariano,

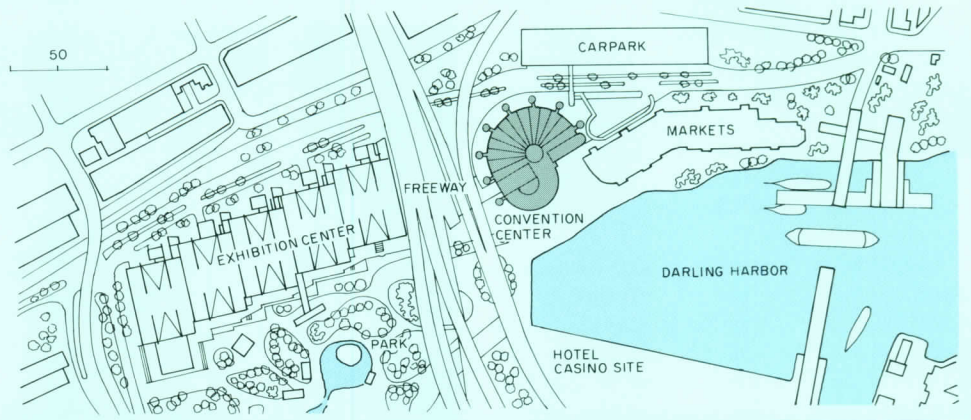
ENGINEERS: *Leslie E. Robertson Associates (structural); Syska & Hennessy (mechanical/electrical); Creegan & D'Angelo (civil)*

CONSULTANTS: *Wilson Ihrig & Associates (acoustics); S. Leonard Auerbach & Associates (lighting); Rolf Jensen & Associates (safety); Travers Associates (traffic/parking); Electronic Systems Associates (security); Fred Schmid Associates (food service); Paoletti & Lewitz (A/V); RB Systems (sound); Lin Utzon (art)*

LANDSCAPE ARCHITECT: *Royston Hanamoto Alley & Abey*

GENERAL CONTRACTOR: *Blount Brothers Construction*





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ANCHORING A BUSTLING WATERFRONT

An approachable center
stars at harborside.

Sydney Convention Center
Sydney, Australia
John Andrews International, Architect

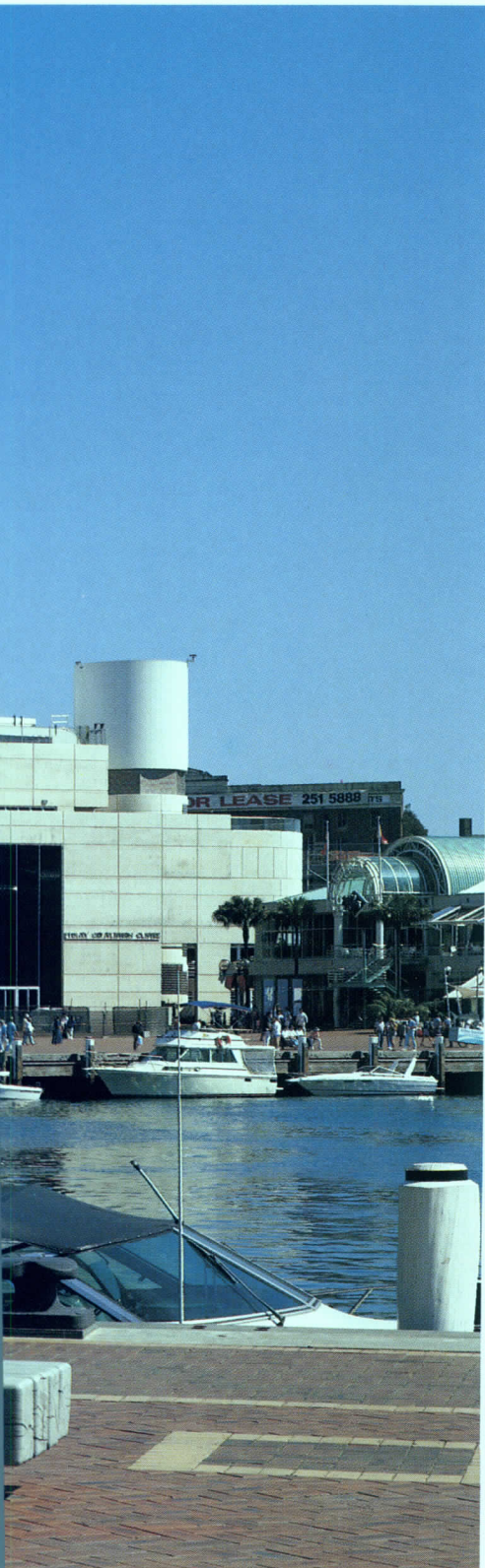
Viewed from the business district on the opposite side of Darling Harbor, the invitingly transparent face of Sydney's new convention center reflects its leading role in an emergent "leisure area"—the product of an ambitious waterfront redevelopment scheme that also includes a park and a "festival market" à la Rouse, as well as an immense exhibition facility. Nor is the invitation misleading: the center's ground floor extends a terraced public restaurant and bar/lounge to merge with the broad promenade that skirts the harbor from market to park, dodging through a forest of columns carrying an elevated freeway across the complex.

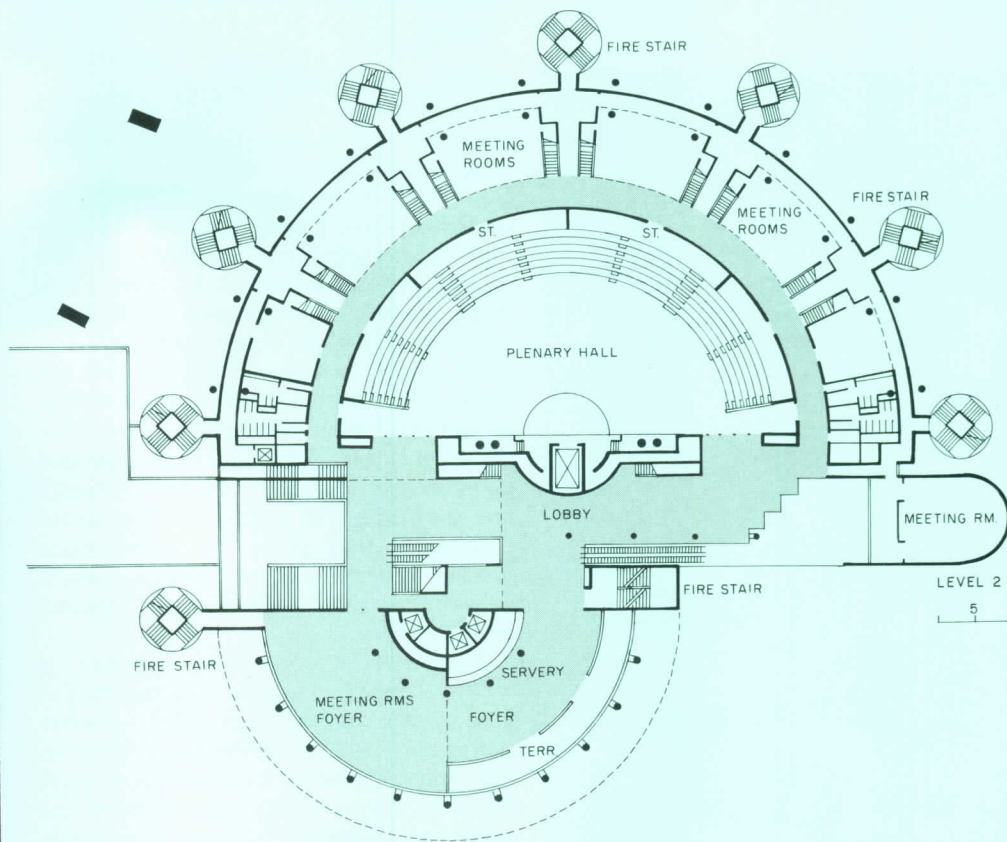
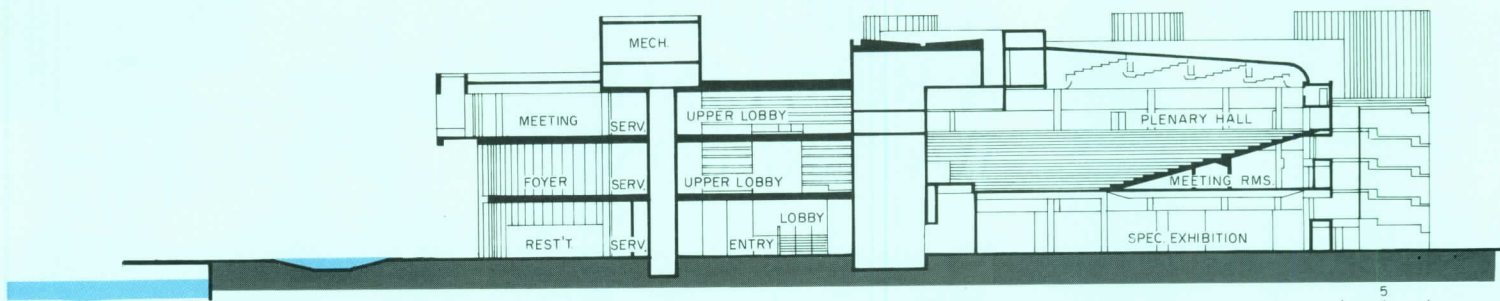
The essential connection, however, is with the jointly operated existing exhibit hall, whose proximity allowed the convention center itself to be dedicated to meeting and assembly facilities, uncompromised by the quite different structural and spatial requirements of large-scale exhibits. Tuned instead to the demands of the 3,500-seat plenary hall at its core, the new center assumes the form of a nautilus shaped by the large semicircular enclosure around the amphitheater and a smaller half-circle of meeting rooms set above the ground-level public spaces at harborside. Between the two lies a pedestrian circulation spine that joins an entrance forecourt—shared by the market on the north—with the exhibit hall on the south.

Despite the open welcome it extends at the waterfront, the exposed concrete structure is assertive enough to hold its own against the competing mass of the freeway. The opaque bulk of the larger segment backs against the freeway's curve at the rear of the site, presenting a road-level roofscape of ceramic-tile-clad wedges between massive radiating trusses. Around the perimeter, eight exterior stair towers anchor the structure with bold cylinders animated by glinting spirals of glass block beneath the solid caps of mechanical rooms. At the front the building subtly accedes to its intrusive neighbor by picking up the scale and rhythm of the freeway columns in the much-refined form



Despite its commanding presence, Sydney's convention center fits smoothly into a developing "leisure area" on Darling Harbor (site plan opposite), opening its glass-walled public spaces—a restaurant and lounge and a double-height lobby concourse (above)—to waterfront activities and city views. The concourse, which contains the center's vertical circulation, is also a pedestrian route between an auto forecourt on the north and the exhibition halls on the south.





of a portico across the glazed arc that faces the lively harbor scene.

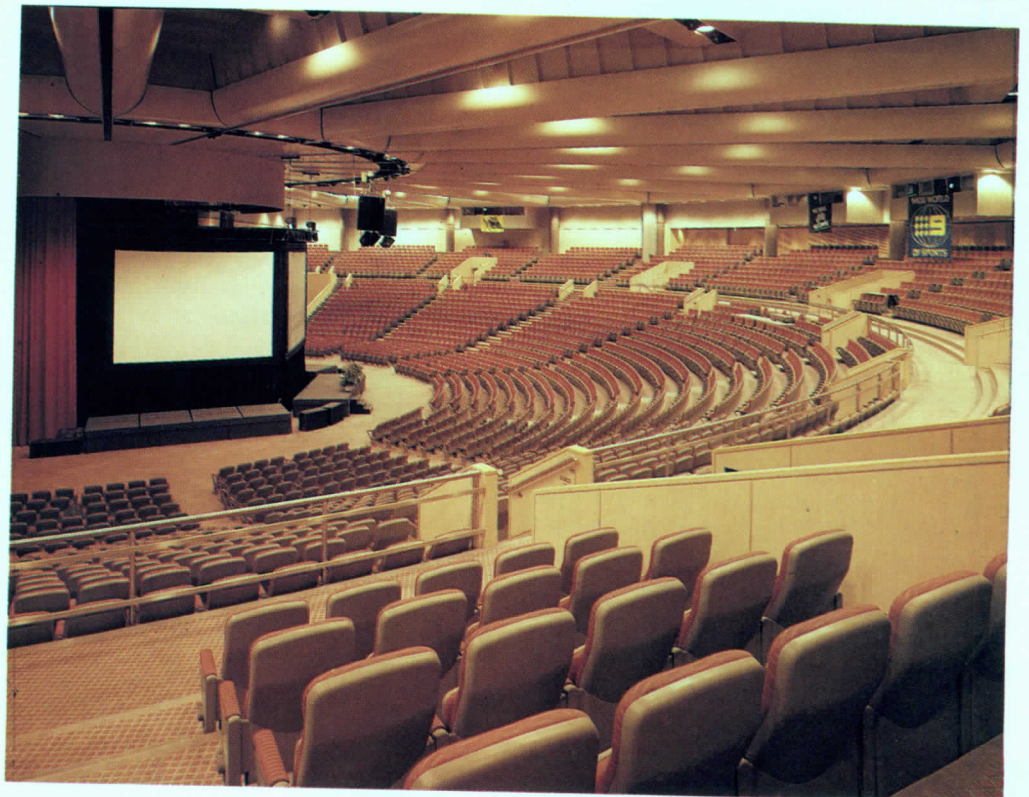
To accommodate small conference-related exhibits as well as banquets and community events, the ground floor beneath the plenary hall is given over to a divisible 64,500-square-foot clear space directly off the main foyer. Escalators carry conventiongoers to spacious upper lobbies that serve meeting rooms distributed on three levels of the forward half-circle and around the building's rear periphery, under the rake of the plenary hall. From these prefunction areas, as from the more public facilities, the waterfront and its panoramas are a constant presence amplified by the sweeping walls of glass. Even usually hermetic interiors receive natural light from high strips of glass block that band the amphitheater's half-drum, alternating with precast panels.

Augmenting the flexibility provided by the smaller meeting spaces, the plenary hall itself can be divided by operable walls, coordinated with its radial beams, into three segments made self-sufficient by a sectional stage and independent access

Behind the center's transparent outer segment, the 3,500-seat plenary hall occupies a larger opaque semicircle pinned by cylindrical stair towers. Introduced by elegant prefunction spaces like the upper lobby (right), the amphitheater divides along its radial roof beams to provide up to three smaller self-contained spaces.



and servicing. The semicircular plan and 120-foot seating radius that minimize the hall's structural spans also assure comfortable viewing distances, while absorptive wall and ceiling treatments maintain acoustic quality throughout, despite variations in audience capacity. **M. F. G.**



Sydney Convention Center
Sydney, Australia
OWNER: Darling Harbor Authority
ARCHITECTS: John Andrews International—John Andrews, Arthur Robb, design; Warwick Werner, Bruce Lincoln, documentation and administration
ENGINEERS: Miller, Milston & Ferris (structural); Addicoat Hogarth Wilson (mechanical); Julius Poole & Gibson (electrical); Smith, Temple, Paul and Partners (hydraulic)
INTERIOR DESIGN: John Andrews International in association with Forbes & Harris Design Consultants
PROJECT MANAGERS: Leighton Contractors
BUILDERS: Baulderstone Hornibrook

SPECIALIZING IN READY VERSATILITY

A multiuse center offers two facilities in one.

Adelaide Convention Center
Adelaide, Australia
John Andrews International, Architect

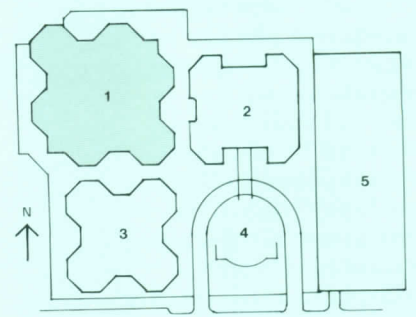
Modest in size but ambitious in aim, Adelaide's new convention center earns its prominent place in a major redevelopment project by accommodating a broad array of attractions—from tennis to concerts—as well as conventions. Like many other halls, it can be subdivided for gatherings of varying size; uniquely, any or all of the divisions can be transformed from an auditorium with tiered seating to a flat-floored area for exhibitions or banquets.

The flexible multiuse center joins a hotel, office building, and connecting entry plaza (also designed by John Andrews) in a complex that spans the tracks of a historic, now-rejuvenated railroad station next door. In addition to recapturing a lakefront which the tracks had split off from the city's core, the scheme reaches out to such complementary near neighbors as an exhibition hall and an arts center.

Despite its low profile, the convention center holds its own against the much taller buildings through its pivotal position as well as the strong modeling of its interlocking geometric forms. The dominant figure is a cluster of six octagons, four of which define the main hall. Two more on the cross axis contain meeting rooms and the main entry lobby. Between the modules, rectangular inserts encase connecting secondary foyers, topped by mechanical rooms that rise prominently above a rooftop intersected by service vaults. The outriding cylinders hold toilets and stairs. The sculpted forms are unified by a skin of pink-beige precast concrete panels that add the mass necessary for acoustic isolation—and also lend visual weight.

Inside, the closed environment of the central hall is relieved by full-height glazing, balconies, and bridges at the secondary foyers. With circulation and services at the periphery, the five smaller rooms created when the main space is divided can be fully self-contained. When it is converted by hoisting the raked seating clear of the floor, the soffits of the hinged platforms provide instant lighting, air conditioning, and sound systems integrated into a wood-veneered false ceiling.

M. F. G.

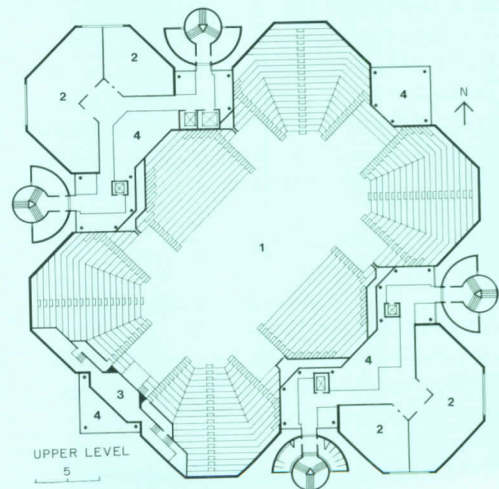


- 1. Convention center
- 2. Hotel
- 3. Office building
- 4. Plaza
- 5. Casino/Station building

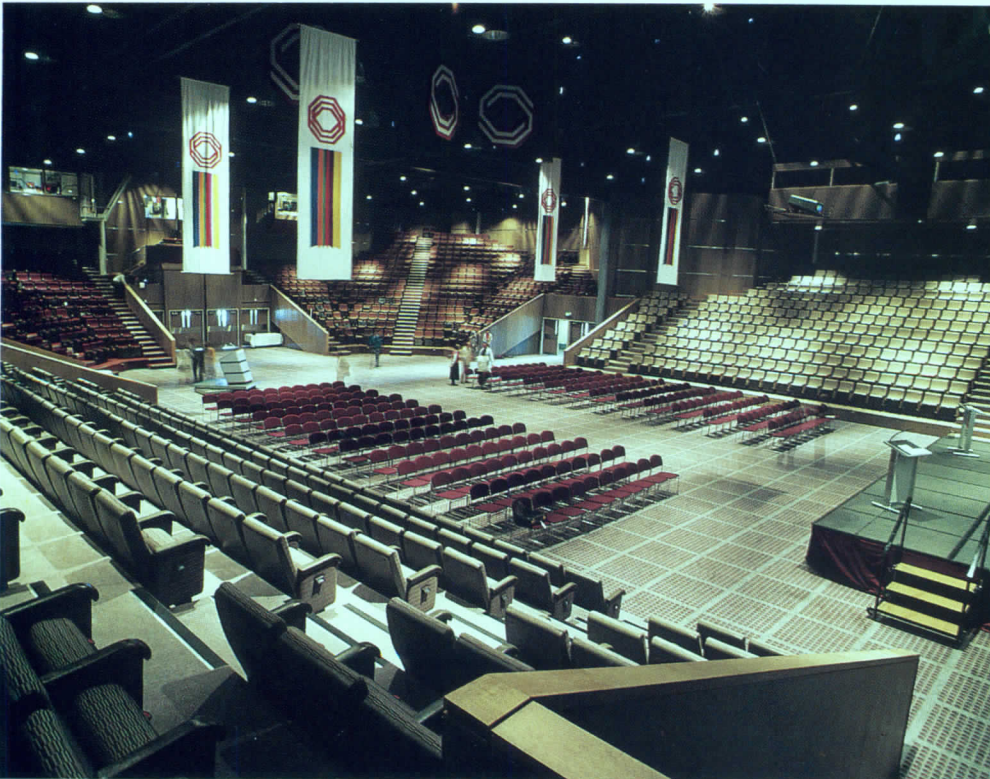
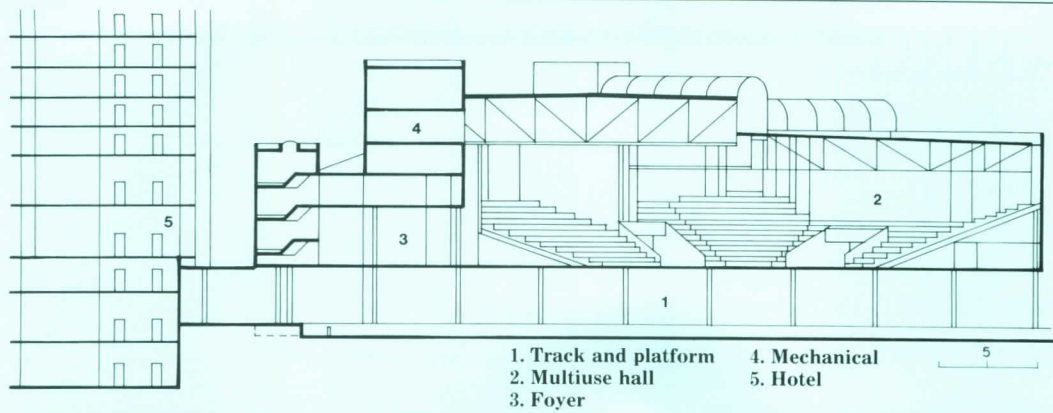
MILTOS WORDLEY



Adelaide Convention Center
Adelaide, Australia
OWNER: ASER Property Trust
ARCHITECT: John Andrews International
—John Andrews, Ole Saeverud,
Douglas McKay, design; Ole Saeverud,
Ian Hore, Arthur Robb, documentation/
administration
ASSOCIATED ARCHITECT: Woodhead
Australia—Peter McLennan, Ian
Howard, documentation/
administration
ENGINEERS: Pak Poy & Kneebone
(structural); Lincolne Scott Australia
(services); WT Partnership (quantity
survey)
CONSULTANTS: Forbes & Harris/Woods
Begot Interior Design (interiors); Land
Systems (landscape); Commercial
Kitchens (food service); Entertech
(theater/specialist facilities); Pryce
Goodale and Duncan (acoustics)
PROJECT MANAGER: Pak Poy & Kneebone



- 1. Multiuse hall
- 2. Meeting room
- 3. Control room
- 4. Void (foyer below)
- 5. Toilets



Oriented outward to a lakefront park (opposite) as well as inward to a plaza forecourt, Adelaide's center hosts a variety of events in a hall that can be converted from a 3,500-seat raked auditorium (left) to a flat-floored banquet/exhibit space (above) by raising the hinged seating platforms.

DECORATING THE DECO DISTRICT

Miami Beach's center is a one-building revival.

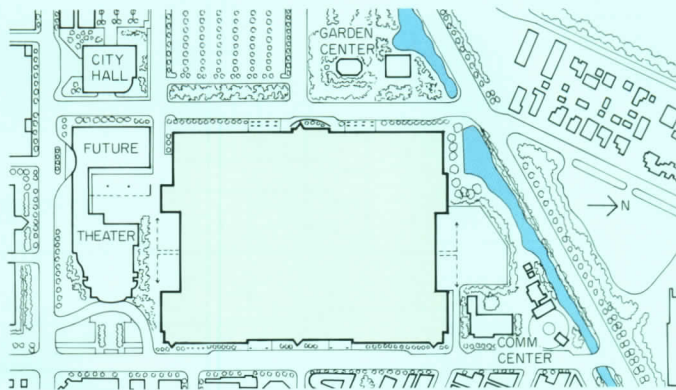
Miami Beach Convention Center Expansion

Miami Beach, Florida
Thompson, Ventulett, Stainback & Associates, Architects

From the heady pinnacle of renown it reached in 1972, when it hosted both the Republican and Democratic national conventions, the convention center at Miami Beach has declined in tandem with the city's sagging popularity as a resort. The just-completed renovation and expansion, which doubles the building's size, is a confident bid to recapture its former preeminence in the meeting market—and boost the fortunes of the city in the bargain.

The addition essentially mirrors the existing center, with which it combines to create a four-part, 500,000-square-foot exhibition hall surrounded by meeting rooms, service facilities, and public areas that bring the total project to 1 million square feet. The original facility addressed an ad hoc civic enclave including the city hall, a theater, and a multiuse community center. Now, the more critical juncture with the city occurs at the 1,000-foot frontage which borders the newly reascent Deco district and parallels the beachfront.

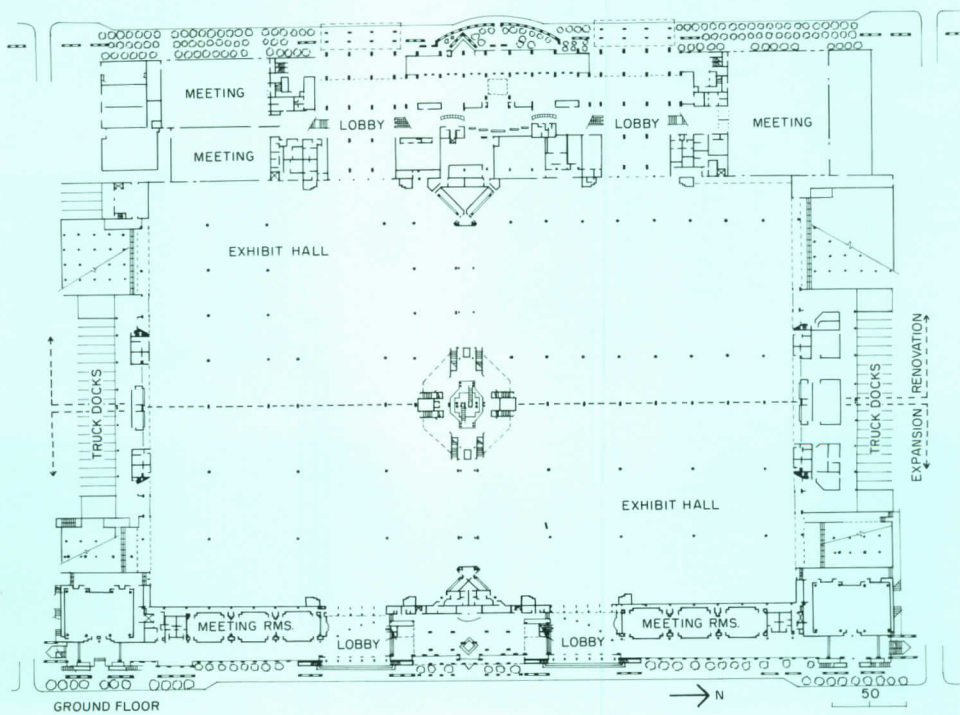
The meeting is effected with a finesse that belies the center's overweening size, disguising it with an articulated facade scaled and sculpted to complement the lighthearted community it joins. A potentially distancing 26-foot setback required by code is turned to advantage by treating the long building face as a transparent wall veiled by an exuberant confection of shaded terraces and punctured screens. In addition to creating a filigree of light and shade, the layering carries the facade forward to the sidewalk, establishing a lively streetscape that responds to both the functions inside the center and the features of the neighborhood—a linkage strengthened by lush plantings and a palette grading from the gleaming white of the facade's outer surfaces to deepening tones of apricot in its recesses. At the center of the building, a skylit restaurant and the terminus of a major street are mutually celebrated by a wedding-cake brise-soleil rising to an open-framed turret, while less elaborate screens and canopies on either



Fanciful false-front brise-soleils and deeply recessed terraces articulate a spirited street facade that attunes the Miami Beach Convention Center's public posture to the adjacent Deco district and nearby beachfront.

©DAN FORER PHOTOS





side frame entrances to the paired exhibition halls. The angular projections announcing major meeting spaces at either end again coincide with east-west streets.

The center's "Tropical Deco" sympathies are equally marked in the lobby concourse, where the outer screen becomes a transparent grid overlooking the city. Abundant but controlled natural light, a welcome respite from sealed interiors, throws into relief an oasis of stucco and terrazzo, foliage and fountains, portholes and perforated valances, and everywhere swathes of vivid and muted color that echo the play of sun and shadow. **M. F. G.**

*Miami Beach Convention Center
Expansion*

Miami Beach, Florida

OWNER: *City of Miami Beach*

ARCHITECT: *Thompson, Ventulett, Stainback & Associates, Inc.—Thomas W. Ventulett, Jr., director of design; C. Andrew McLean, partner-in-charge; Jack Plaxco, Paula Stafford-Cloutier, Jim Ward, designers*

ASSOCIATED ARCHITECT: *Borelli, Frankel, Blitstein—Jaime Borelli, Marcus Frankel, Peter Blitstein, principals-in-charge*

ENGINEERS: *DeZarraga, Donnell and Duquesne (structural); A. Epstein and Sons International (mechanical/electrical/plumbing)*

CONSULTANTS: *Joint venture of TVS & Associates/BFB (interiors); S. W. A. Group (landscape); Cini-Little Associates (food service); Schirmer Engineering Corp. (fire protection)*

GENERAL CONTRACTOR: *George Hyman Construction Company*

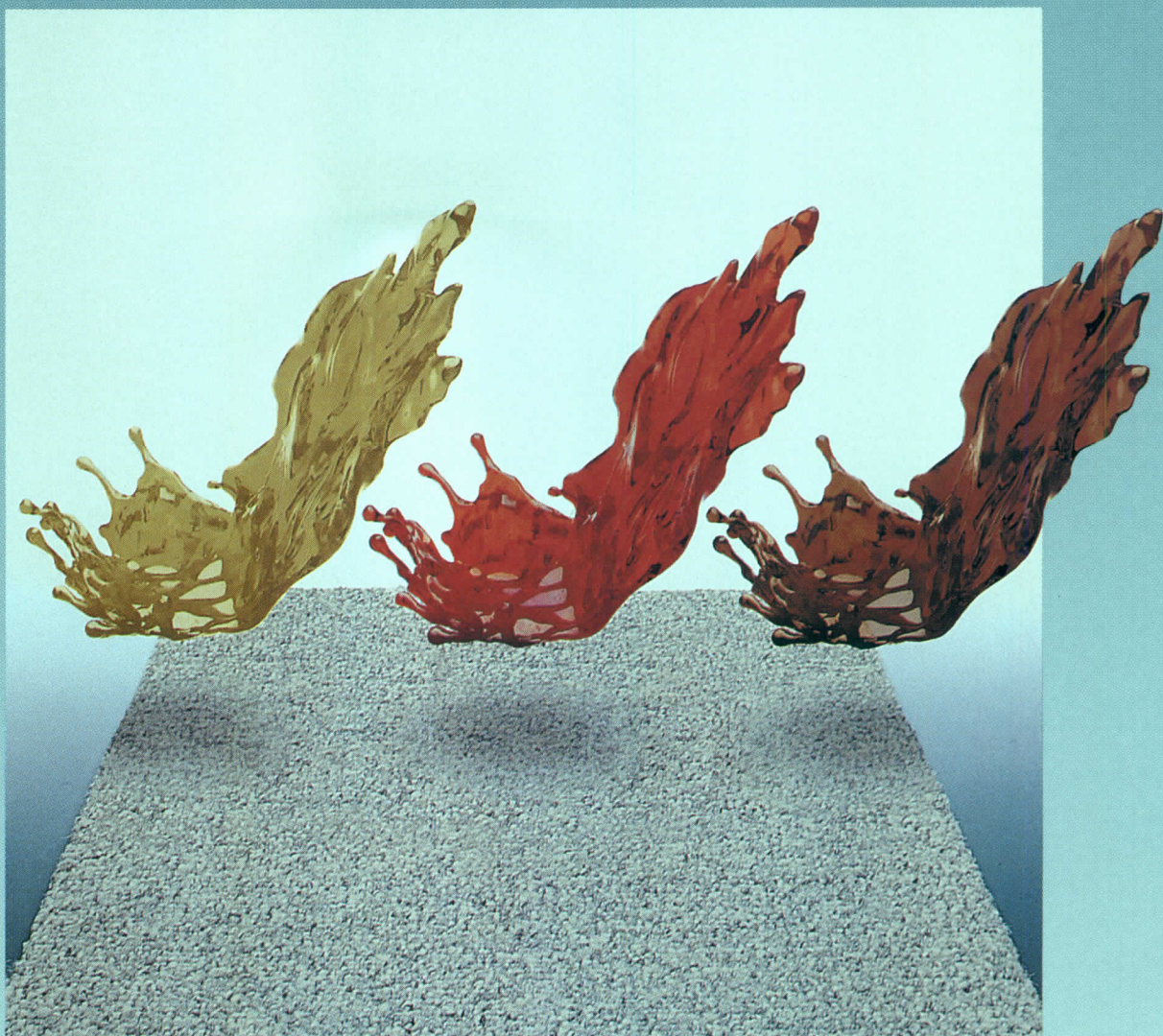


Though shaded, the facade's window grid floods the lobby's Deco details with natural light. Restaurants are located at the midpoints of the upper lobby (top right and opposite) and the crosswalk over the exhibit hall.



INTRODUCING

A N T R O N



**FOR CARPETS
THAT CLEAN UP EASILY
SPILL AFTER SPILL.**

SHADOW FREE

New compact fluorescent lamps and an even-newer indirect lighting scheme meet IES ceiling luminance values.



A team effort, lighting the skylit, VDT-intensive spaces of Steelcase's new Corporate Development Center near Grand Rapids produced an innovative point-source indirect installation that meets the even ceiling luminance values recommended by new IES guidelines. The building, a 575,000-sq-ft, seven-story-high pyramid, has 50,000 sq ft of sloped and vertical glass that admits natural light into the primarily open-plan office areas. The skylights have patterned frit glass, reflective coatings, and special interlayers that limit glare and light transmission, creating a luminous, loftlike environment.

Steelcase, represented on the lighting team by Wayne Pierce, Randy Wilda, and John Ziech, retained Gary Steffy Lighting Design, Inc., of Grand Rapids, to develop luminaire performance and design criteria that would promote the health of the employees, foster productivity, and maximize human comfort—goals dear to the client's heart.

These guidelines stressed the importance of color consistency among the ambi-

ent, task, wall, and infill lighting sources, and the maintenance of these values over time. Working with psychological and ergonomic studies suggesting that diffuse ambient light provides a lower-stress office environment, the group aimed to meet current IES recommendations with about 30 footcandles at the work surface, without task-obscuring shadows. The lighting also had to balance the brightness ratio between the skylight and window areas and the workstations. Fluorescent lighting, specifically the then-new GE BX compact sources, was selected over incandescent and HID types as best meeting this particular criteria with a lumen output that would need a low-clutter minimum of fixtures.

The extensive use of computers in the CDC (every desk has a terminal) mandated such VDT-related lighting considerations as the elimination of glare and veiling reflections, ease of visual focusing, and flexibility in the location and angle of the screen itself.

Given the lavish use of open-plan space, a 10-ft finished ceiling height, and the de-

sire to meet a broad range of task requirements with the most efficient fixture placement, a ceiling-suspended indirect solution was selected from the beginning. Aiming for a human scale in the fixtures, architect Donald Koster of The WBDC Group established that a circular shape would work better with the building's geometry, and would not produce a distracting, closed-in overhead plane. Design criteria specified a spacing module of 12 ft to work with companion luminaires mounted on the 36-ft-on-center structural columns in a typical bay. Infill lighting would be used to delineate the stepped sidewalls of the skylight bays.

Peerless Lighting Corporation, of Berkeley, Calif., a manufacturer committed to indirect lighting, was asked to develop an optical system that would provide the most efficient luminance and spacing for the pendant. Steelcase's John Ziech was responsible for styling the housing, code-named MD33 for its 33-in. maximum diameter. Two same-size wood models were constructed by Steelcase, evaluated



for scale and shape in a mock-up of a typical CDC private office, and produced in prototype by Peerless. And a 15-in.-dia sconce to light circulation areas was added to the program. Slot fixtures, with baffles painted to match the building's exterior, provide wall-wash illumination in private offices and conference rooms. The Lyra task light was developed independently by The Steelcase Industrial Design Group. All luminaires use new compact fluorescent sources with a color rendition of 3,500 K. Incandescent lighting is used in the office areas only to accent art hung on interior walls.

Ceiling finish was important in obtaining the widest possible beam spread and reflectance values. Noise control required 1 1/2-in. of fiberglass pad insulation on the ceiling, and the team originally considered a shiny white vinyl facing. But the most effective surface, oddly enough, turned out to be a nubby-textured spectrally flat white, which reflected 75 percent of the lumens from the fixture with no hot spots.

The custom pendant developed for the CDC is available as a standard fixture from Peerless, under license from Steelcase. Post-occupancy evaluations of the lighting by CDC employees are enthusiastic: like Punxsutawney Phil this year, they can't see their shadows.

JOAN F. BLATTERMAN

*Corporate Development Center,
Steelcase Inc.,
Gaines Township, Michigan*
ARCHITECT: *The WBDC Group, Architect*
LIGHTING DESIGN: *Steelcase Inc.; Gary Steffy Lighting Design, Inc.; The WBDC Group; Peerless Lighting Corporation*

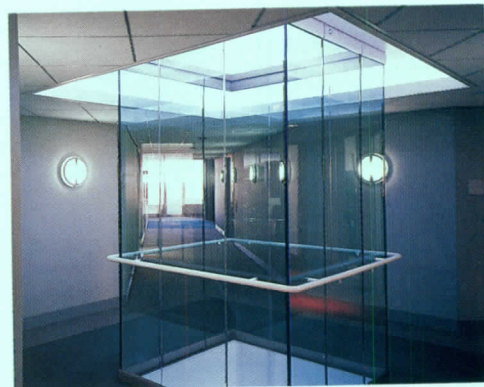
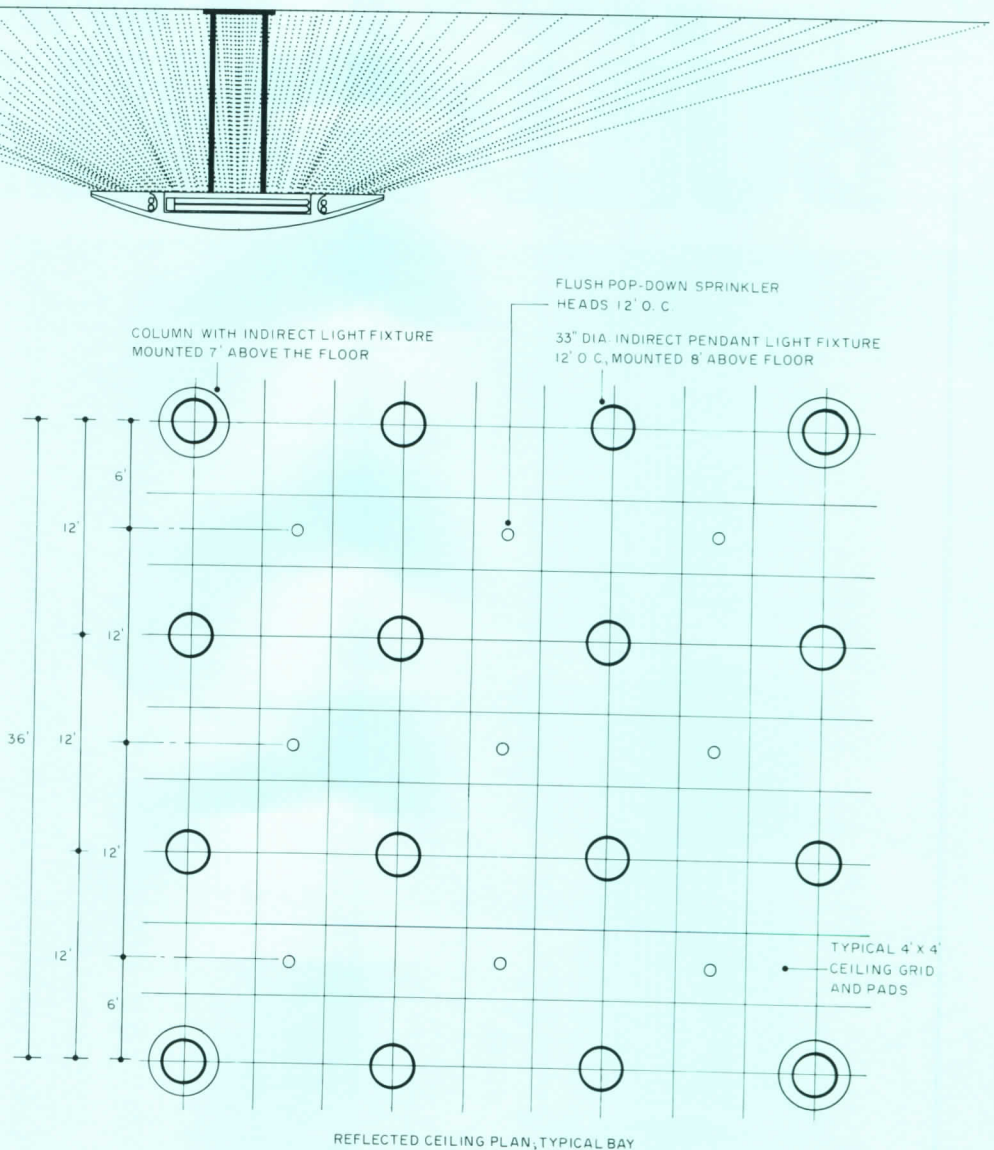
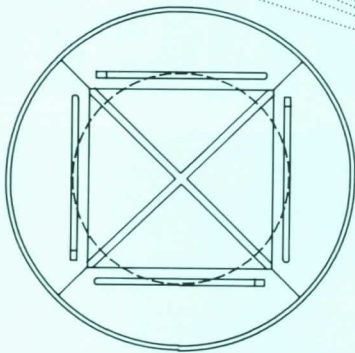


Photo (overleaf) shows the integration of day- and electric-lighting, with two rows of linear fluorescents defining the structure of the setbacks. A conference room (top left) achieves a ceiling luminance ratio of 5:1, with 40 fc on the conference table. The Lyra task light is shown on a Context workstation (left). Sconces that match the esthetic of the pendant illuminate the corridor (above).



REFLECTED CEILING PLAN, TYPICAL BAY

The lensed-indirect pendant is made of polyester-coated spun steel, with die-formed reflectors in white steel and specular aluminum. The optical lens is acrylic, extruded in a CAD-generated prismatic pattern specific to the 24-in. drop. A sandblasted, etched, and patterned slumped-glass diffuser supported by a decorative die-cast ring provides a sense of light, illuminated only by the light bounced from the ceiling directly over the fixture. The four linear compact sources illuminate at 72 percent efficiencies. Plan (above) locates the four F39BX fluorescent lamps within the housing; the interior circle identifies the glass diffuser. The section diagram (top) illustrates the photometric distribution achieved by the fixture. A ceiling plan (right) highlights the clean look of the open-bay ceilings.

UNDER THE LIGHTS

Comparative field study examines the lighting preferences of VDT users.

A just-completed survey asked office workers what *they* think of two state-of-the-art lighting systems: recessed parabolic downlighting (PBL) and ceiling-suspended, lensed-indirect uplighting (LIL). Conducted by a team from the Department of Design and Environmental Analysis of Cornell University's College of Human Ecology, the study evaluated the impact of both techniques on VDT-intensive work performed in spaces otherwise similar. Though intended primarily to elicit attitudes toward office lighting, the 28-item questionnaire also asked about personal and job-related data, work-related health problems, and job satisfaction and stress. The survey site was a single-story, mostly windowless office building divided into interior open-plan partitioned areas, 10- by 15-ft windowed, enclosed offices, and 10- by 10- and 10- by 15-ft windowless enclosed offices. A "before" survey established a baseline for thermal and visual comfort of workers in each type of office space, and took physical measurements of light levels from the existing fluorescent troffers, recessed into the 9-ft 6-in. ceiling and covered with a prismatic plastic diffuser. Following the remodeling of the entire office with new furniture

and wall finishes, an almost identical "after" questionnaire was completed by employees matched with their "before" location and function. The sample characteristics of the two groups, now lit by either LIL or PBL systems, were generally similar as to gender, age, and time spent on VDT equipment.

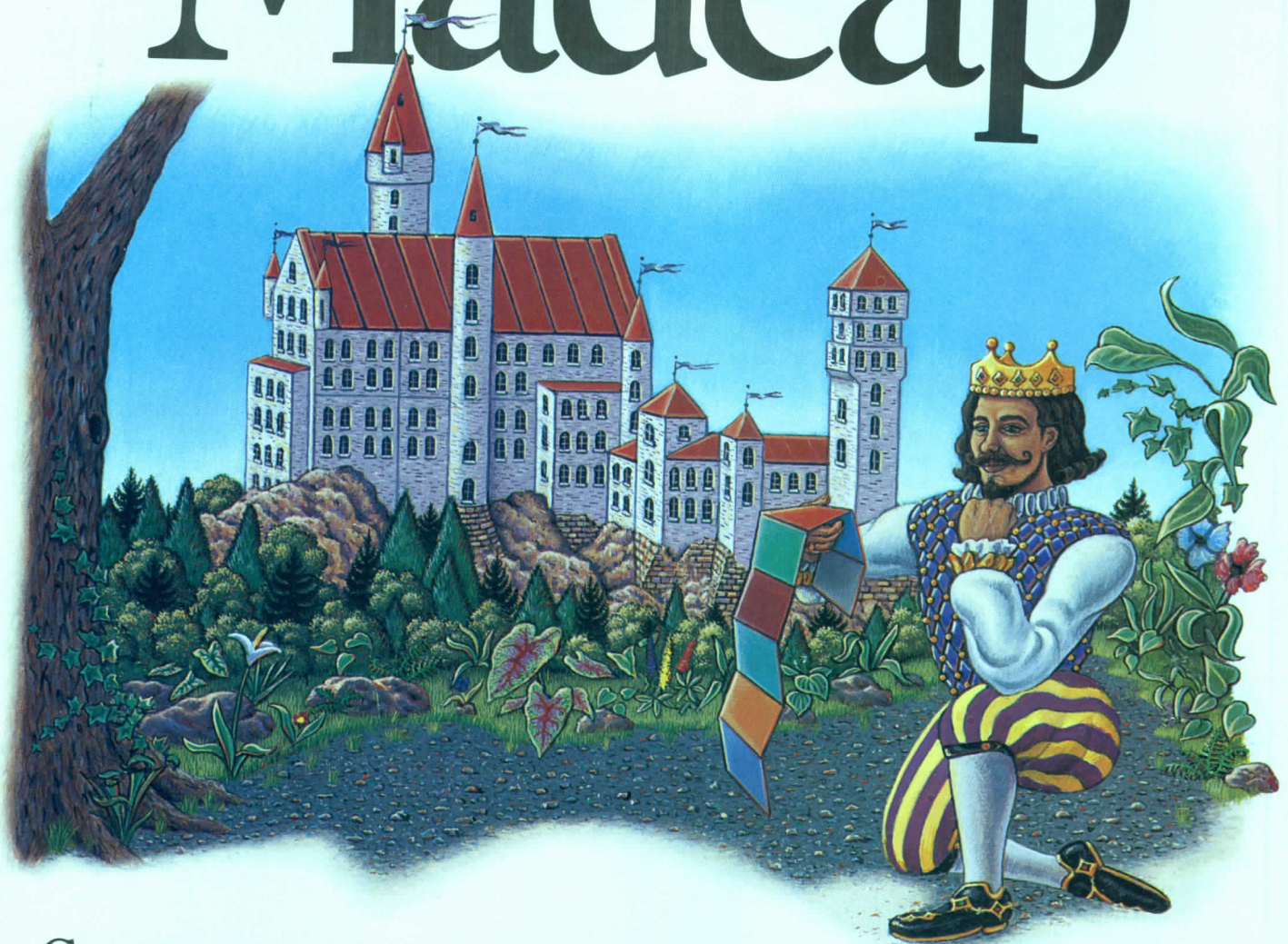
Statistical analysis of the results showed ratings significantly better for the LIL than the PBL groups for how well the office lighting supported reading/writing and drawing/drafting on the computer. There were no major differences, however, between the lighting systems when applied to tasks on paper, which is easy to re-orient for more comfortable viewing. Also, many of the workers in the directly lit areas had already modified the lighting and moved their furniture, space permitting, to a position that helped to reduce glare. Subjective views on the lighting—dim vs. bright, comfortable vs. uncomfortable, relaxed vs. tense, etc., as well as the incidence of physical symptoms such as tired eyes and backache, also showed preference for the indirect system. But both new lighting installations scored better than the old lay-in diffusers.

J. F. B.

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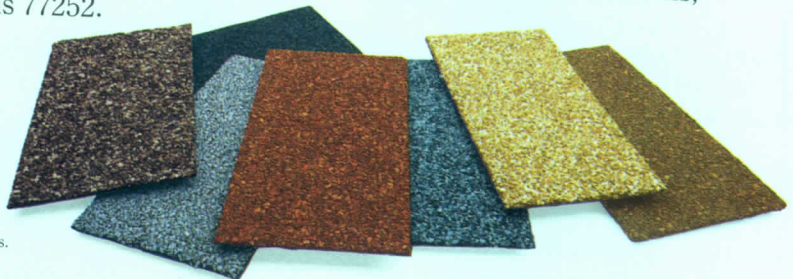
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Circle 39 on inquiry card

WESTWEEK

Although the main topic of discussion at WestWeek will probably be mergers and acquisitions, some comment will surely be reserved for designs, including these.

1. Multidirectional

Verticase frameless wood units have concealed ganging attachments that allow components to stack onto each other. Executive Office Concepts. *Circle 300*

2. Sinuous seating

Enrico Franzolini's sidechair of curved beechwood has backward-curving cantilevered armrests. KnollStudio. *Circle 301*

3. Acoustic texture

A new ceiling tile, Embassy has an acanthus motif set within an octagon. Armstrong Contract Interiors. *Circle 302.*

4. Pendant and bracket

Called Utopia, Ernesto Gismondi's lights have sanded-glass diffusers. Artemide. *Circle 303*

5. Mosaic-patterned damask

A multiweave of cotton and wool, Ravenna was designed by Suzanne Tick with the patterns and jewel-tones of Renaissance Italy. Brickell Associates. *Circle 304*

6. Cubist rug

Trombone is tufted and carved in wool, and can be made to any size and coloration. Schumacher. *Circle 306*

7. Guest chair

The Chatham side chair, with its expressive wood frame, is part of Brian Kane's seating collection. Bernhardt. *Circle 307*

8. Spanish alabaster

Gary Cross's Cirrus light now comes as a table lamp, with a base in black, white, or chrome. Boyd Lighting. *Circle 308*

9. Slim seating

The D/3 chair uses elastic webbing to provide resilience and back support. Finishes include mirror chrome, hammered pewter, and paint. Vecta. *Circle 309*

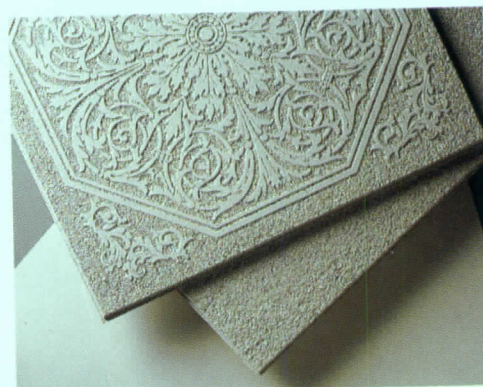
10. Fully upholstered

Designed by Roger Kraft, the Delphi chair rolls up to the dining table on concealed casters. Jack Lenor Larsen. *Circle 310*

11. Modernist jacquard

From Hazel Siegel's 33-pattern collection, Regal Brocades are as densely woven as embroideries. KnollTextiles. *Circle 311*

For more information, circle numbers indicated on Reader Service card. More products appear on page 150.



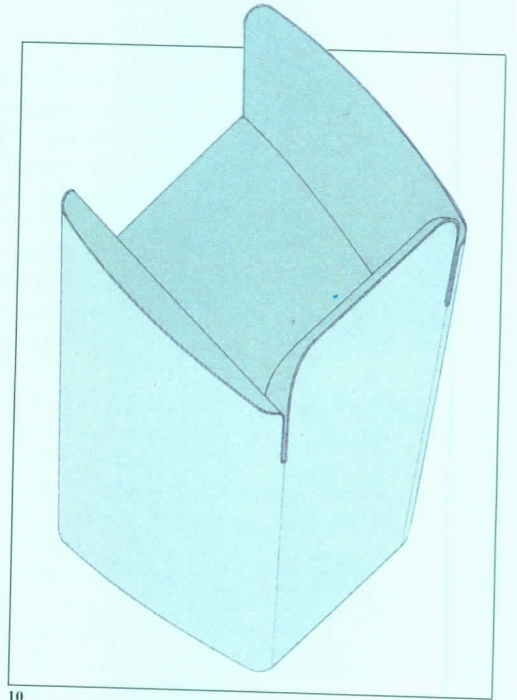
At the Pacific Design Center March 21-23,
WestWeek 90 offers a look at the forces
creating the new Los Angeles.



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MARCH 1990



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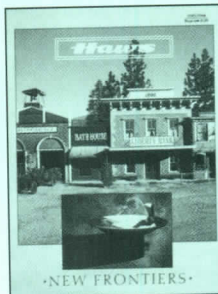
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For more information, circle item numbers on Reader Service Card



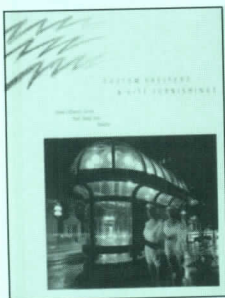
Paint systems

Technical literature includes a color-chip card on new Spred Ultra exterior house and trim paint, an acrylic latex for professional application. A Visual Guide to Gloss lets the specifier compare the light reflectance values of coatings. The Glidden Co., Cleveland. *Circle 400*



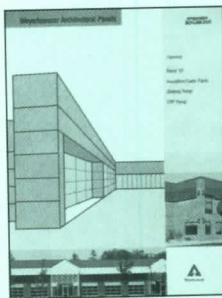
Water fountains and coolers

A 20-page catalog highlights colorful pedestal, deck, and wall-mount fountains made of stainless steel, bronze, powder-coated aluminum, and china-look Polymarble. Indoor and outdoor models are included. Haws Drinking Faucet Co., Berkeley, Calif. *Circle 406*



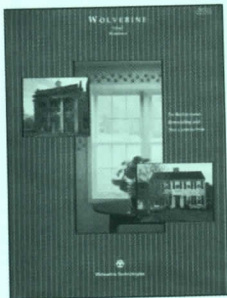
Custom site furnishings

A 12-page brochure shows pedestrian shelters, kiosks, and site furnishings specifically created to complement the character of seven American cities. Furniture and structures are made of steel, wood, and high-tech plastic. Urbano, Grand Rapids, Mich. *Circle 401*



Architectural panels

Decoratively faced structural, insulating, and glazing panels are shown in a color brochure. Uses include fascia, storefronts, window infill, and curtainwalls. A new FRP-faced panel is offered for sanitary or high-abuse interior walls. Weyerhaeuser, Tacoma, Wash. *Circle 407*



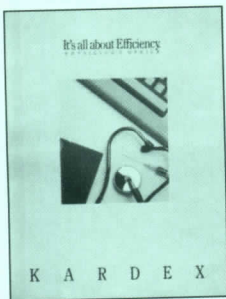
Vinyl windows

A welded, multichambered sash and frame improves the structural strength and thermal efficiency of vinyl windows for new and retrofit applications. A 12-page catalog provides color photos and architectural drawings. Wolverine Technologies, Dearborn, Mich. *Circle 402*



Ecclesiastical furniture

A catalog on church seating, benches, and folding chairs also illustrates custom architectural designs for altars and pulpits. A planning brochure shows wood pews in contemporary, traditional, Gothic, and Colonial styles. New Holland Church Furniture, New Holland, Pa. *Circle 408*



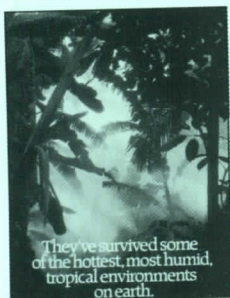
Healthcare record storage

Storage cabinets, files, and retrieval systems specially designed for patient records are shown in a color brochure. Text explains customized design services for records management in hospitals and institutions. Kardex Systems, Inc., Marietta, Ohio. *Circle 403*



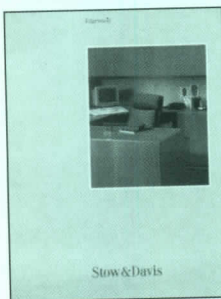
Operable wall systems

Ceiling-hung and portable partitions are offered in three construction types, with acoustical ratings of up to 55 STC. An architectural catalog provides technical data, on-site photos, panel details, and typical wall layouts. Kwik-Wall Co., Springfield, Ill. *Circle 409*



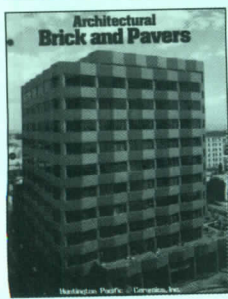
Fiber-cement siding

Clapboard and panels that will not rot or burn are said to have the appearance, installation, and paint-adhesion characteristics of wood. A brochure illustrates textures available in planks, panels, and soffits. James Hardie Building Products, Inc., Mission Viejo, Calif. *Circle 404*



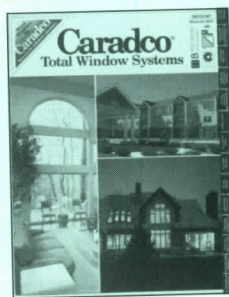
Wood office furniture

The Edgewood line of desks and credenzas has been expanded with the addition of computer support furniture, task and side tables, and more versatile storage. A color catalog illustrates all components and dimensions. Stow & Davis, Kentwood, Mich. *Circle 410*



Brick and pavers

The consistent natural coloration provided by Alberhill clays produces an architectural brick line of uniform appearance across all sizes and shapes. A six-page portfolio highlights recent brick projects. Huntington/Pacific Ceramics, Inc., Corona, Calif. *Circle 405*



Wood windows

All Caradco clad- and primed-wood windows, bays, and patio doors are shown in an 82-page 1990 catalog, which includes information on the Georgetown line of true-divided-light styles. Dimensions and details are given for all styles. Caradco, Rantoul, Ill. *Circle 411*

HOW A SMALL FIRM COMPETES FOR LARGE PROJECTS

A Los Angeles architecture firm is gaining notice as a computer-driven design powerhouse.

Four phrases define the philosophy of Ross Wou International: small firm; large projects; collaboration with partner firms; computer technology. While participating in a number of major design and construction projects worldwide, the innovative firm is developing an interrelated set of operating principles that could be the shape of architecture in the future.

"We like to think of ourselves as something of a laboratory of how computers are changing the practice," says Michael Ross, one of the principals of the Los Angeles-based firm. "We don't have the largest number of in-house computers and we may not have the latest technologies, but we are succeeding in applying them in a highly creative, efficient manner."

Leo S. Wou & Associates, the original firm, was founded in 1960; it became Wou International in 1978, and Ross Wou International in 1982. Since then, the 25-person firm has won a number of major contracts:

- The prime architectural contract for the 300,000-square-foot Crystal Palace Hotel in Tianjin, China.

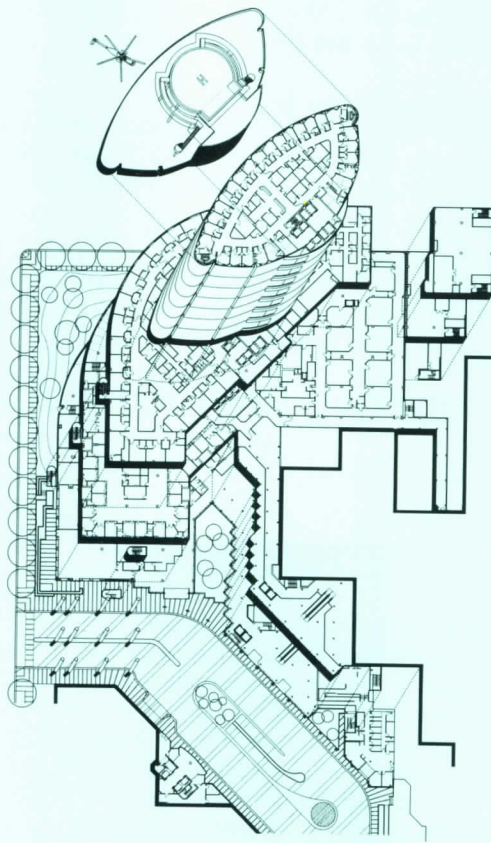
- The master plan of the 2.8-million-square-foot Long Beach, Calif., World Trade Center in a joint venture with DMJM.

- The master plan and supervision, and design of half of the 675,000-square-foot UCLA Ambulatory Care Complex in a joint venture with MBT Associates.

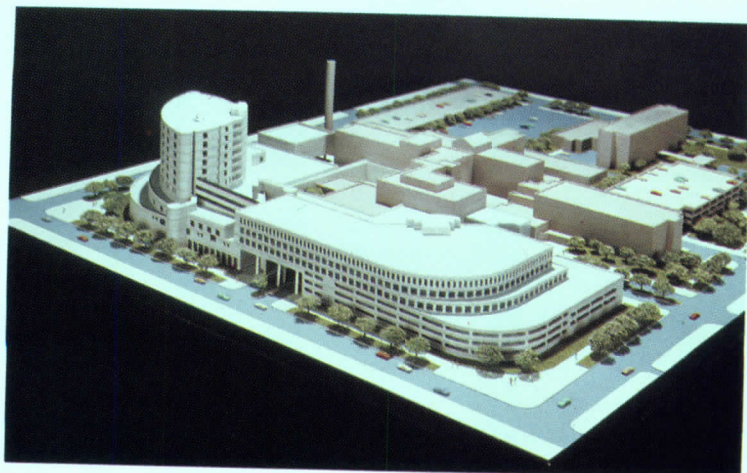
- The joint venture architectural contract (with Haller & Larson) for the 1-million-square-foot AMI Presbyterian/St. Luke's Regional Medical Center in Denver.

- The prime architectural, construction-management, and interiors contract for the \$7.4-million Naval Ship Weapons Systems Engineering Station at Port Jueneme, Calif.

The architects credit computers and a lean, capable staff for some notable benefits in these projects. The AMI/St. Luke's complex, for example, is being completed a year ahead of schedule; the detailed design was completed three months after preliminary sketches were approved. And a Pentagon budget cut required the ar-



The design of AMI Presbyterian/St. Luke's Regional Medical Center in Denver (drawing and photo) required an unusual ratio of exterior wall to interior space in the tower (plan, top) that the computer helped produce.



chitects to successfully reduce the cost of the Navy facility by almost half while keeping most of the program.

Small is beautiful

Joint ventures, and the extensive use of computers to aid the design process, are not revolutionary changes in architecture. What makes Ross/Wou different?

A small staff is obviously more economical, but another intention is to obtain a higher level of communication — maintaining a studio environment even while working on large projects. It also allows Ross and Wou to keep better control of projects.

"Architects are traditionally educated to be generalists, but, at large firms, designs go from planning to design to construction departments; hardly anyone gets involved in the whole project," observes Ross, who had earlier worked at SOM and DMJM. "Our staff must be good in design, fluent in computer-aided design, and know about construction and management."

"Think of a chef," reasons Leo Wou. "He assembles all the ingredients arranged on a table, and then makes a dish. With computers and a trained staff, that is what we are able to do with a construction project."

Because of joint ventures, Ross/Wou's resulting foundation in computer hardware and staff training allows the firm to serve as a nerve center for coordinating the efforts of groups of architectural and construction firms. But the hardware wasn't bought with this sole object in mind. While they are quick to point out

their capabilities in designing projects and carrying them through construction, the principals have a strong background in urban planning and development, which they see furthered by their computer capabilities.

CAD infrastructure

Leo Wou is a strong proponent of computers and electronic communications, having earned a Masters of Architecture in CAD at UCLA under William Mitchell in 1983. Today, the firm's total investment in com-

puter hardware and software is approaching \$750,000.

The hardware arrangement and degree of individuals' CAD experience help determine the structure of design teams. Conceivably, the office could do five major projects at one time; each of the five primary-system workstations is run by a project architect and is capable of overall management. Assistants work on PCs doing components of designs.

Because the primary system organizes data in layers, this program structure affects how designs are completed. Each phase of the design process can be stored as a layer, and pertinent information is easily transferred from a preliminary phase to a later one. The layers can be organized to represent physical components of the project, such as interiors, structural elements, windows, or mechanical systems. At the same time, the layers can be fed to joint-venture partners and subcontractors as the design evolves.

As an example of the advantages of CAD, structural components that would have required drawings covering several desks can be easily scaled up and down on a screen. AMI/St. Luke's design development required the architects to maximize the number of rooms, while giving each fixed dimensions and windows. In a rectangular floor plan, wasted space was found in the middle of the building, while a triangular plan yielded too little space in the center for required functions. Taking the required exterior wall for 32 rooms per floor as a given, the architects squeezed the ends of a rectangle on the computer to attain the desired interior space. Two curved exit stairs were placed at each end, and the offset elevator core in the middle. The final, space-efficient plan has the shape of a football.

Conceivably, Ross/Wou could transmit a sketch with its associated data electronically to a design partner, who would make the desired modifications and/or enhancements, then transmit it back for continuing the next step in design. But the firm has not yet found partners who are using CAD at the same level of sophistication, or who have compatible design software. "We have thus been forced to send hard-copy renderings to our partners, who make their design decisions, then send hard copy to us," says Wou. "Then we input the changes into our system."

This electronic data-sharing does work with subcontractors, however, especially for fabricated components such as windows, furniture, and mechanical systems. "Many manufacturers we work with use our CAD system, and we are able to send floppy disks containing drawings to them, have them evaluate the components according to their manufacturing practices, and then send the revised data to us for inclusion in the final drawings," says Ross.

Whether within Ross/Wou offices, or during interactions with partners and subcontractors, data security is a major concern—not in the sense of interlopers destroying data, but of the need to keep data current and to properly record changes and updates. One project architect, working at a primary-system station, has responsibility for inputting changes. All changes must be made on a dated hard-copy before they are inputted; "otherwise, it would be like looking for a needle in a haystack" to find the source of changes or of differences between schemes, according to Ross. "This aspect of the system is very rigid, but it is the only way to know for sure what is going on," adds Wou.

Personal interaction

All of this is not to forget personal interaction. At the outset of the project, the various parties define a design-management

What would have
required drawings
covering several desks
can easily be scaled up
and down on a screen.

team, with representation from clients, consultants, and partners. In repeated work sessions with the team, the final design evolves and then the computer information is updated. Each project has an executive architect, who maintains client contact, and a project architect, who oversees the design process and information management.

The AMI/St. Luke's project represents a good demonstration of how all this fits together. Ross/Wou and Haller & Larson, the joint partners, decided to have each firm provide services at cost, and share the profits after expenses. After acceptance of the master plan by AMI, schematic design commenced in December, 1987. As in all Ross/Wou projects, the ultimate construction documents are laid out in concept on 8.5-by-11-inch cartoons, sheet by sheet. The cartoons are then marked with coded stickers for the next design stage.

The entire hospital and medical office building was laid out in detail in two months, representing 70 percent of the contract requirement and was submitted for review on February 2, 1988. A variety of reviews and reassessments were made by the doctors during the next five months, and the plan was approved with few changes on July 1, 1988. Final schematics were completed one month later.

On August 28, AMI authorized the joint venture to begin design development/con-

struction documents, consisting of over 250 sheets with detailed schedules and specifications including equipment, which were finished in three months.

These sheets were used for guaranteed-maximum-price contract documents, which were submitted to general contractors for bids. The winning bid—coming in some 20 percent below the projected project cost—was from Hensel Phelps Construction Co., which signed a contract on January 2, 1989. While the budget had been \$74 million, based on national square-foot costs for medical facilities, Hensel Phelps' bid was \$58 million.

The rapid generation of demolition, excavation, and foundation drawings allowed the foundation permit to be issued early; actual work began on March 9, six weeks ahead of schedule.

The project contract had a cost-saving provision whereby the contractors would win 25 percent of savings made after the GMP contract was signed. Close coordination among the architects and the general contractor identified some savings, especially where subcontractors' designs were prequalified and included in the final construction documents. The total project is now 60-percent complete. The client's schedule has been sped up by a year. All this work occurred while existing hospital facilities in the vicinity of the project functioned unimpeded.

Future directions

Another metaphor that Leo Wou is fond of using in describing the firm is that it functions like a special-forces unit in relation to the regular Army. It has scaled-down versions of the capabilities of much larger firms; similarly, the members of the firm are adept at a variety of tasks. "When it is necessary, we can bring in the regular Army of large architectural staffs by choosing the right venture partner," he says. However appropriate this metaphor is, it seems clear that the structure of the firm and its design processes allow its professionals to do the types of designs they are most interested in doing, in a way that they are most comfortable doing them. For the future, the firm's principals see growing interrelationships with other firms across the country and around the world, and continuing improvement in the efficiency and cost-effectiveness of closely coordinated design and construction. The firm is also crossing a new threshold by opening its first satellite office, in Palo Alto. It's a safe bet that the level of computer-driven communications will be high.

"The computer is creating change in how architecture should be practiced, and the profession has to adjust to this technology," Wou concludes. □

Mr. Basta is a business and technology journalist in New York City.

AN ACCOUNTING PACKAGE TAILORED FOR ARCHITECTS

Clerk of the Works is designed for an architectural firm active enough to employ a bookkeeper two or three times a week.

Clerk of the Works 1.0

This full-featured accounting package is unusual in two ways. It is optimized for architectural practices, and it runs on the Macintosh. Various modules include time and expenses, billing and accounts receivable, general ledger, accounts payable, and payroll. A wide range of report types is packaged with the software, and more reports are promised.

Equipment required: Macintosh Plus or larger (SE/30 or II series recommended) with fixed disk. Tape backup strongly recommended. Printing checks (for payroll or accounts payable) requires a dot-matrix Apple ImageWriter; other modules can use a LaserWriter as well. System 6.0.2 (6.0.4 for the IIci or Mac Portable).

Vendor: Samsara, P.O. Box 222, Spring House, Pa. 19477. Phone (215) 628-3565. The full version of Clerk of the Works with all modules costs \$2,495. A limited version for smaller firms will be priced based on firm size. (Interested firms should write or call Samsara.) Price includes a month of support, after which support is \$1 per minute from Samsara. Dealer and consultant support is also available; it is sure to be a bargaining point. A demonstration version is \$90.

Manual: Good. The binder—a small led-

gerbook—holds a good tutorial. But make no mistake. This software is designed to be used by a professional bookkeeper or accountant, and not by an amateur. Thus, there is little guidance on accounting for the amateur in the package's documentation. The manual tells you only how to use the software itself. More advice on setting up identification numbers for employees, clients, and so forth would be appreciated.

Ease-of-use: Good. Access to various modules does not follow normal Macintosh interface standards (pulling down the Clerk of the Works menu and choosing a module from it places the module's name on the top-of-screen menu bar, where you pull down another menu), but it is generally intuitive. Choosing each command in turn from the pull-down menus will allow you to fill in on-screen forms in the proper order. Reports can be viewed on-screen for checking before printing.

Clerk of the Works can export files to the clipboard for use in other programs, such as word processing and spreadsheets. But it cannot accept clipboard files from other programs.

Installation is simple. You copy an installer program to the fixed disk, then click on it. The Clerk of the Works files are unfolded from the installer program in a form that makes them usable. Then the in-

staller program is erased. If you do not erase it, accidentally clicking upon it will produce another copy of the software.

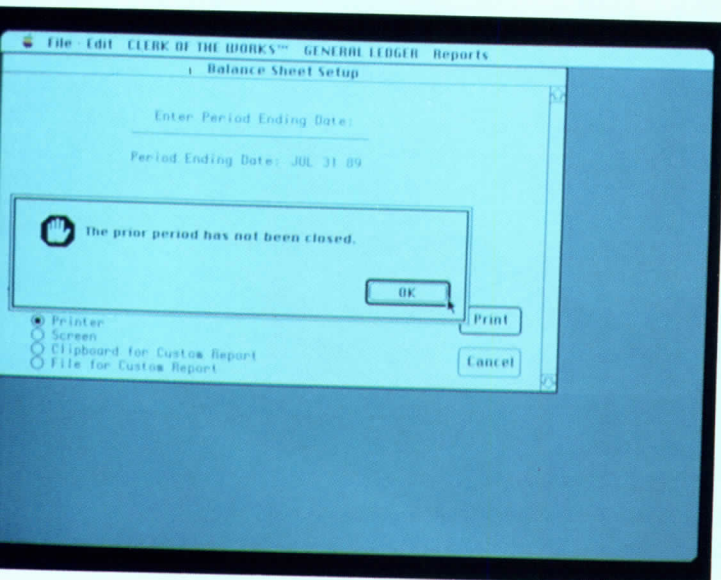
Error-trapping: Fair. As with many accounting packages, Clerk of the Works is unforgiving when it comes to modifying such items as the chart of accounts, identification numbers for clients and employees, and start of the fiscal year. A firm that takes in another firm, in a merger at midyear, for example, will have to do some gymnastics to prepare the books for the rest of the accounting period. If you think you may have to change the fiscal year after data has been entered, delay actually posting any transactions until after you have created a final version.

On the other hand, you can start Clerk of the Works in midyear by entering existing balances. You do not have to enter all data in detail for the period between fiscal year startup and Clerk startup.

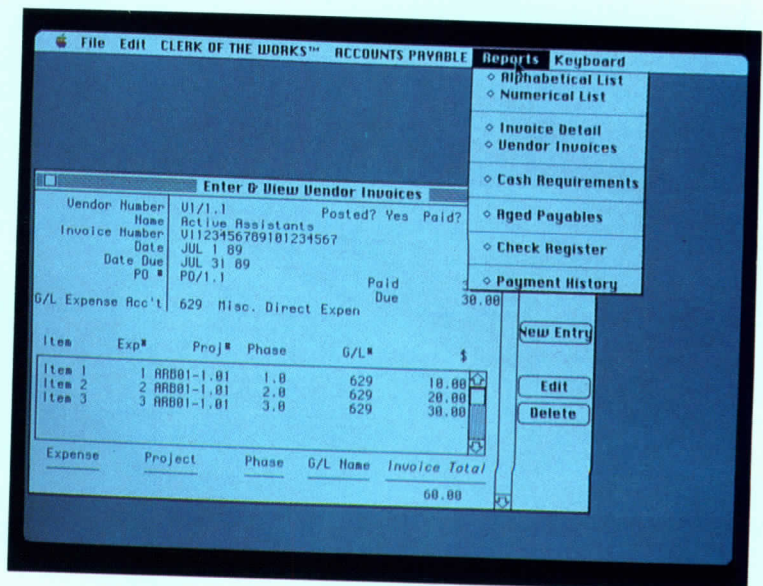
As with all good accounting software, once an expense or receipt is posted, the record containing it cannot be deleted.

After entering a screenful of data, you must press the ENTER key or click on the OK command, otherwise the data will be lost. If you try to leave a screen without doing this, you will *not* be prompted to save; you will have to rekey the information.

When you change an hourly rate, the old



You must close a previous accounting period.



Accounts-payable file supplies credit history.

There are 24 CAD programs offered for Architects on the Macintosh. ArchiCAD has the highest price.

Why?

Project Conception:
 Marc Corbiau,
 Architect,
 Brussels, Belgium
 Realisation:
 Marc Lust, Architect

Bill of Materials

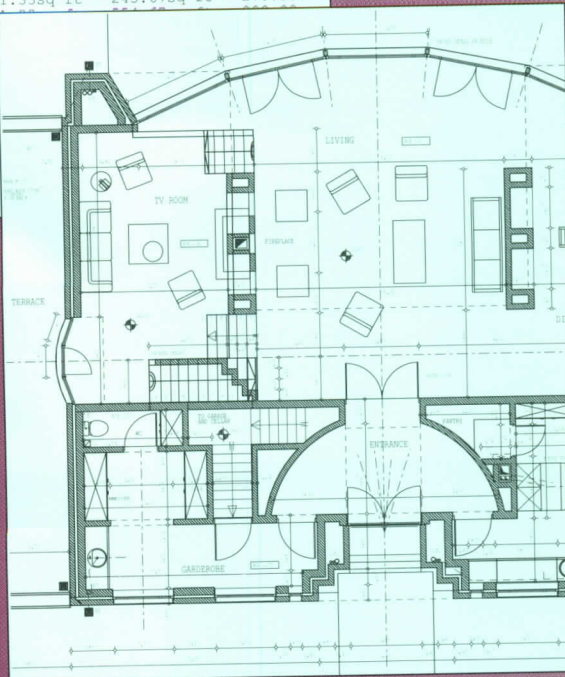
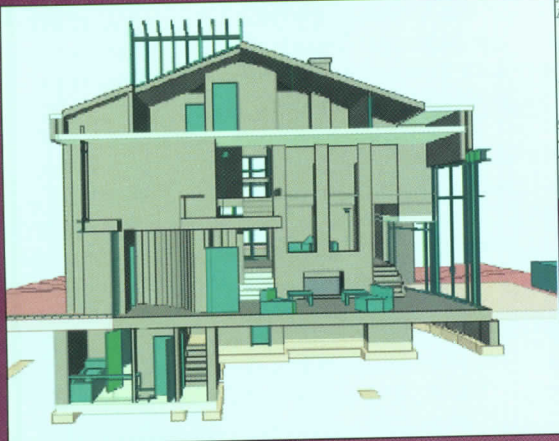
1. STOREY.

Walls Surface

WALL 510.49 sq ft
 2X1 stud+brick veneer
 -story height
 -2X1 sole plate
 -subfloor extension
 -brick veneer
 face brick
 mortar type N
 metal ties

WALL 239.76 sq. ft 237.09 sq ft 1 8
 2X4 stud + plaster 5'

WALL 671.33sq ft 245.67sq ft 278.33c
 WALL 47
 WALL 37



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rate is kept for calculations up until the effective date of the new rate.

You can mistakenly list a consultant or a client by name and by company or organization name—or first name first and then last name first. As with most accounting software, there's no internal check (on addresses, for instance) to warn you that two entities might be the same.

Although there are on-screen clues, it is fairly easy to ignore follow-on screens when entering information. This is not fatal. You save the incomplete data, then realize you have to add something to it. But a bookkeeper in a busy office can lose track of what data has been entered, and what has not.

Do not underestimate the power of accounting software that's customized to reflect the way architects actually work. Most organizations, for instance, do not have occasion to give an individual several positions on the same project, at different compensation levels.

The AIA's stock list of expense types (photography, reproduction fees, and so forth) is built-in. You can tell Clerk of the Works to recognize other expense types. You can also tell the software what expenses are to be billable on a specific project, and which will not be billable. But you should enter these types, with code numbers, before entering data on a specific project.

Likewise, you can edit the built-in position names (principal, job captain, interior designer, clerical, and so forth). Personnel and consultants can be assigned to different positions on different projects—or on the same project. Someone might start as a draftsman and be promoted, or also have some coordinative or managerial tasks. All positions must be on the software's master list, but not all have to be used on any one project.

Posting invoices and payments in the accounts-payable module will automatically update the payment records for each consultant. You cannot delete the records of a consultant if any payments and invoices have ever been posted to the consultant's accounts, even if the consultant is no longer used.

Speed is about average for Macintosh accounting packages. We created some voluminous data, more than 300 invoices from 100 consultants, along with substantial salary and internal-expense account information for 20 "employees." Clerk of the Works was slow in posting all these data to the various program files. The task took about 20 minutes on a Macintosh II with 40 megabyte fixed disk and 5 megabytes of random-access memory. On a Mac Plus, it could probably take more than an hour. Fortunately, you can select only specific records for posting, and leave the overall task for the computer to handle at lunchtime or overnight.

You can also post general journal entries to a period that has been closed. The software takes several minutes to do so. But once an entire year is closed, no more posting is allowed. Nor will trial balances, an income statement, or a balance sheet be printed.

Break up big projects into smaller ones if compensation and billing will vary for different concurrent tasks. Each "project" in Clerk of the Works can have only one compensation method—fixed fee, percent of construction completed, or time and expenses. But you can change billing method in the middle of a project. This allows you to keep sequential phases in the same project file.

Time and expenses billing, in turn, allows itemized, total-by-phase, or total completed automatic billing. In all cases, you can add new tasks to an existing project.

Like most Macintosh software, Clerk of the Works allows reports to be sent to the clipboard. There, they can be picked up by PageMaker, the Excel spreadsheet, and various word-processing packages that can accept files from the clipboard. This is a great convenience. It allows Clerk of the Works output to be modified by other software.

It can also be a security problem. Data can be changed by other software, before a final printed report is produced.

Samsara uses an unusual copy protection scheme. After a large amount of data has been entered (typically over several months), the software begins warning the user to call Samsara for a reauthorization code, so it can continue to be used.

What type of firm should use Clerk of the Works? A firm active enough to em-

ploy a bookkeeper at least two or three days a week. Even a firm on the verge of requiring a second day's bookkeeping services may save enough labor time to justify Clerk's expense. Large firms (100 financial transactions a day or more) may need a multiterminal setup, impossible with Clerk of the Works. Very small firms may save so little time with software that it is better to handle transactions manually.

CalComp WIZ

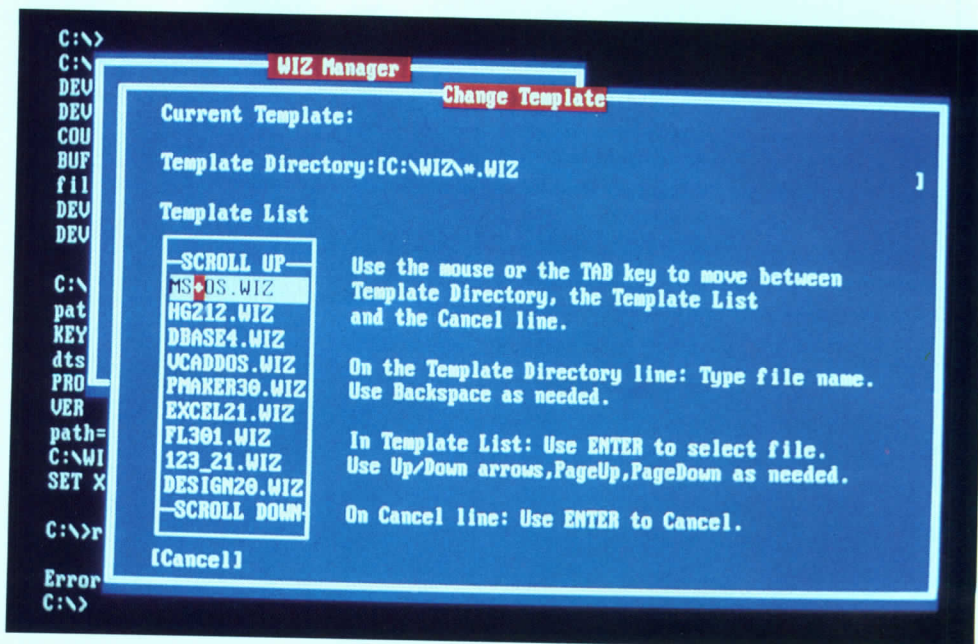
An inexpensive, small (7.5- by 7.5-in. active area) digitizing tablet that comes in two versions; one for MS-DOS and PC-DOS personal computers and compatibles, and the other for the Macintosh Apple Desktop Bus. Templates that allow control of many CAD software products with WIZ are already available and more are promised. You can also reprogram an existing template with your own commands. The DOS version is a memory hog, however.

Equipment required: IBM PC, AT, PS/2 or compatible with mouse port or serial port. Macintosh SE of II series, with Apple Desktop Bus (ADB) port.

Vendor: CalComp, 2411 West La Palma Ave., Anaheim, Calif. 92801. Phone (714) 821-2000 or 1-800-CALCOMP. \$249 with 6-button puck/mouse and your choice of template. \$75 for stylus pen. \$49 for each additional template.

Manual: The two manuals, one for the Mac and one for DOS, are concise. Both could use more details on defining your own templates.

Ease-of-use: The tablet is easy to install. The DOS version comes with a variety of cables to connect to a 9- or 25-pin serial



Menu for DOS version of WIZ Manager instructs user on templates.

Designing the Future... MicroStation

From the world's leading supplier of computer-aided design solutions comes MicroStation — the first production CAD package for the PC.

MicroStation is a powerful 2D/3D CAD system with more than 500 commands and features including shading and hidden line removal. Easy to learn and easy to use.

MicroStation lets you share common data simultaneously within a network of PCs, Macintoshes, and UNIX workstations.

MicroStation offers a wide range of third-party applications and a sophisticated platform for developing your own applications.

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For further information on MicroStation and related products: in the U.S., call 800-345-4856; in Alabama only, call 800-345-0218; in Canada, call 416-625-2081; in other countries outside the U.S., contact an Intergraph sales office.

INTERGRAPH



This 15th-century building located in Bologna, Italy, is being restored and converted into a Congress Center. Screen image courtesy of the Italian National Agency for Alternative Energy (ENEA), Bologna. Elaborated for ENEA by Frattini & Scire.

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port, or a mouse port. Software installs automatically, updating the CONFIG.SYS and AUTOEXEC.BAT files and saving the old versions. The Mac version requires you to drag the WIZ icon into the system folder, open the Font D/A Mover, select the Desk Accessory option, and follow on-screen instructions.

It is easy to switch from one template to another as you switch software, too.

Error-trapping: Cable connectors can physically be installed upside-down or in the wrong place at the tablet cable sockets.

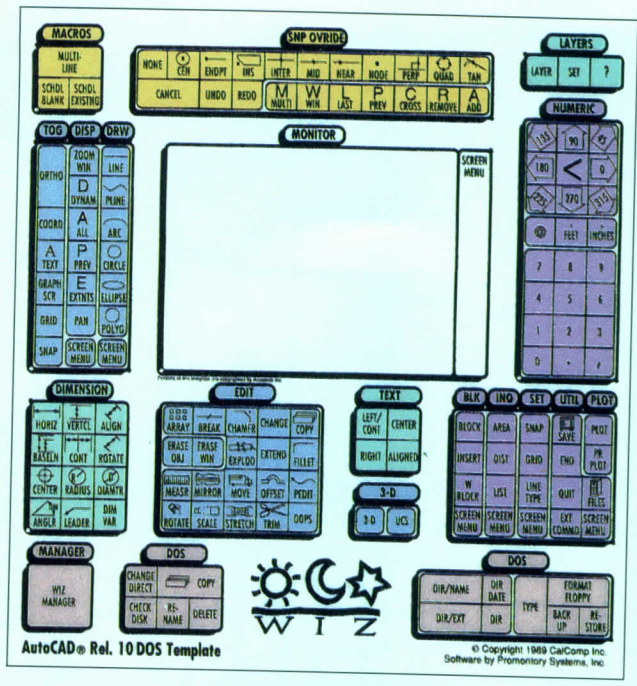
Give CalComp a lot of credit. The WIZ is an inexpensive digitizing tablet that also works in mouse mode. That is, it can be set up so that each point on the tablet corresponds to a specific point on the screen, like a digitizer. Or, the on-screen cursor can respond to movement of the WIZ "mouse" (really a digitizer puck) just as it would to a mouse.

How inexpensive? The list price is \$249, but the street price is likely to be closer to \$150.

The DOS version has templates available for AutoCAD 10, VersaCAD 5.4, Autodesk Animator, PageMaker, Harvard Graphics, and other software of particular interest to architects. It also works happily in a networked environment. In fact, there's a template available for Novell Netware. The AutoCAD and VersaCAD templates are well designed, too.

The drawback of the DOS version is in required memory—a whopping 74 kilobytes minimum, plus an additional 17.5K for storing screen information. The screen data can be stored on your fixed disk or in a virtual disk (in memory above the normal DOS 640K). Fixed-disk storage does slow things up.

There's no problem at all with VersaCAD/386. It leaves over 400K of regular



AutoCAD® Rel. 10 DOS Template © Copyright 1989 CalComp Inc. Software by Promontory Systems, Inc.

DOS memory. That's more than enough for WIZ and for networking as well. AutoCAD 10 requires some juggling. Generic CADD and AutoSketch worked well, with the WIZ used simply as a high-resolution mouse. Neither of these low-end packages require a great deal of memory. CalComp promises a smaller memory requirement in the future.

The Mac version has none of the drawbacks. Because of the way the Mac is designed internally, the WIZ uses at most a few kilobytes. We tried it with Claris CAD, MacDraw II versions 1.0 and 1.1, and VersaCAD 2.1.

The big gain in functionality was with MacDraw and Claris CAD. With these packages and a conventional Mac mouse, you click on a menu, drag it down, select an option, drag to a dialog box, drag, drag, drag. With WIZ, the menus are more

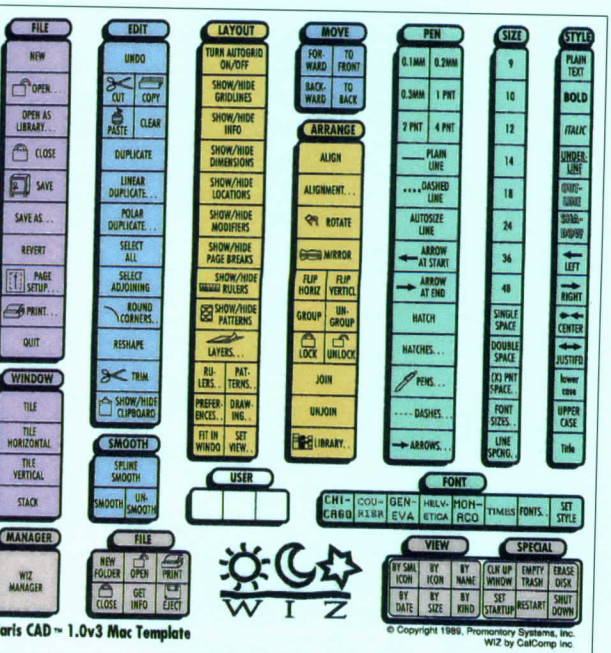
accessible, faster. You can bypass many intermediate commands.

Using the WIZ with VersaCAD was a tossup. In normal operation, VersaCAD menu trees are short, and the mouse-action is interrupted with optional dialog boxes. If you are going to use VersaCAD with a digitizing tablet, a larger active area would be better. This method allows more room for extra command buttons on the tablet surface, to match all the extra commands available with the VersaCAD software.

We prefer an 11- by 11-in. tablet for VersaCAD. A good compromise where space is tight would be an 8.5- by 11-in. surface (93.5 square inches). A Kurta tablet that size would be about \$500. The WIZ active area is only 56 square inches, so not all the options can be represented—only the opening menu for each. But there is room to add 18 command sequences of your own.

The WIZ certainly beats the mouse for Macintosh. It is less jumpy on the screen, operates more smoothly than the standard-issue Apple mouse, and has far higher resolution—1,000 dots per inch instead of 100 to 400 for even the best mouse. Add to that its small size—not much larger than a mouse pad—and the fact that the WIZ mouse buttons can be reprogrammed for left-handers.

WIZ menus are more accessible and faster with Macintosh template for ClarisCAD. Also, many intermediate commands can be bypassed.



Claris CAD™ 1.0v3 Mac Template © Copyright 1989, Promontory Systems, Inc. WIZ by CalComp Inc.

Steven S. Ross is a prominent computer consultant and a regular contributor to RECORD. He is past president of CCM, an educational software company in New York City, and now teaches journalism at Columbia University, where he also runs a large computing laboratory for students. He is often consulted on quality-assurance matters; his latest book, Data Exchange in MS/PC-DOS, was published in 1989 by McGraw-Hill.

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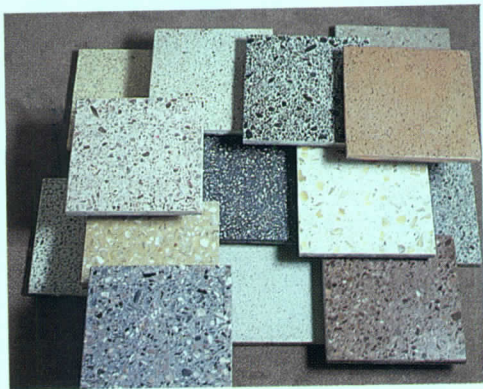
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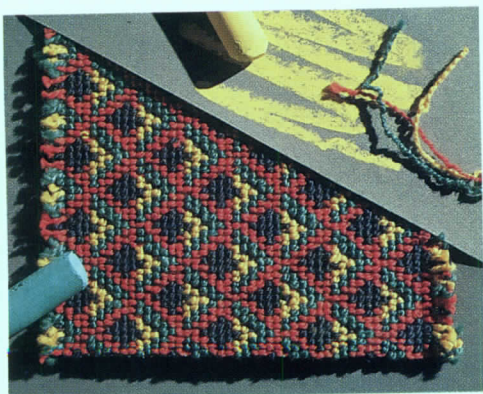
Labeled architectural doors

Pairs of fire doors up to 8-ft high achieve ratings of up to 1 1/2 hours without an overlapping astragal. Special blocking can be specified to permit screw attachment of closers, exit devices, and vertical rods for a bolt-free exterior face. Metal meeting edges are veneered; rated wireless glass lights are set in a wood beading. Algoma Hardwoods, Inc., Algoma, Wis.
Circle 315 on reader service card



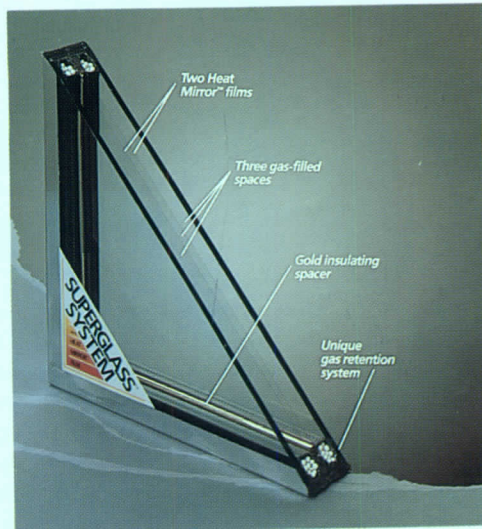
User-friendly carpet system

Powerbond RS (Releasable System) squares avoid such indoor air-pollution problems as emissions from adhesives and inhalation of carpet fibers. The vinyl backing contains a self-stick component for fast installation. Continuous-filament construction is said to eliminate fuzzing and shedding of the nylon fibers. Collins & Aikman Corp., Dalton, Ga.
Circle 313 on reader service card



Heavy-duty upholstery

A new collection, Mission grospoint woven cotton upholsteries, comes in three patterns (Minare is pictured) derived from Arts and Crafts motifs, each in three colorways. The abrasion-resistant fabric is 54-in. wide. Scalamandré, New York City.
Circle 314 on reader service card



Highly insulating glass unit

Superglass, a one-in.-thick IG system, has an insulation value of R-8, said to be double that of the next-highest-performing glass now available. Two layers of clear Heat Mirror film divide the between-glass space into three compartments filled with an inert gas. The film itself is made of a UV blocking material, coated with a transparent metallic layer that admits light while reflecting heat and almost all UV radiation. A nonmetallic insulating spacer prevents condensation, even at the edge of the window glass. The unit is noise-attenuating, with an STC of 35. Now available as a residential glazing option from Hurd Millwork, Superglass units will be offered in sizes of up to 72- by 156-in. Southwall Technologies, Inc., Palo Alto, Calif.
Circle 317 on reader service card



Plain-paper E-size copier

The 2520 mid-volume copier makes multiple size-for-size copies of documents as large as 36-in. wide by 54-in. long, from almost any type of original, including blue-lines, sepias, CAD plots, stats, and cut-and-tape composites. Ease-of-use features include a humidity-controlled media compartment and stands that hold input and output sheets. A roll-media cutter option automatically measures the original, then dispenses media sheets cut to size. Copy quality is said to be sharp on unsensitized bond, vellum, or film. Price: \$7,495. Xerox Corp., Rochester, N. Y.
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Maintenance-free translucent panels

Kalwall has enhanced its sandwich-type building panel with a permanent erosion barrier exterior. A glasslike laminate absorbed into the UV-stable resin creates a smooth, homogeneous, self-cleaning weathering surface that prevents fiber bloom and degradation. Only 2 3/4-in.-thick, the panel offers a range of insulating, light-transmission, and shading values. Kalwall Corp., Manchester, N. H.
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More products on page 158

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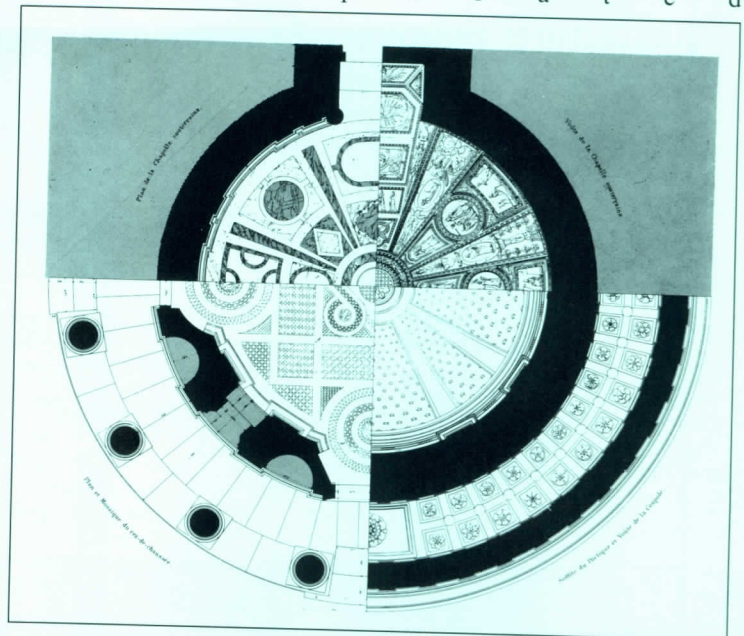


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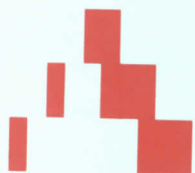
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Manufacturer Sources

For your convenience in locating building materials and other products shown in this month's feature articles, RECORD has asked the architects to identify the products specified.

Pages 58-65

Canadian Chancery
Arthur Erickson Architects

Pages 58-63—Exterior cladding and lobby flooring: Arriscraft Corp. (Addair marble). Windows and storefront system: In-kan, Ltd.

Page 64—(top) Entrance system: C. J. Rush, Inc. Stainless-steel hardware: J.W. Fleming. Stone wallcovering: Walders Stone Co. (bottom) Tables and chairs: custom by architect, fabricated by

Klaus Nienkamper, Ltd. Upholstery: Ormavyl. Carpet: custom by architect, woven by Elite Carpet Mfg.

Page 65—Flooring: Mondo Rubber Canada, Inc. Paints: Pratt & Lambert. Brass and aluminum stage curtain: Mariette Vermette, artist.

Pages 68-69

Freedom Tower/Miami News Building
R.J. Heisenbottle Architects
Standing-seam roofing: Aeicor Aluminum Products Co. Wood-framed double-hung windows: Marvin. Masonry restoration: ProSoCo. Wood entrance: Craft Touch. Recessed downlights: Lightolier, Inc.

Pages 84-87

San Francisco Day School
Simon Martin-Vegue Winkelstein Moris, Architect

Pages 84-85—Railings and trellis: Bay Area Crane. Paints: The O'Brien Corp. Mission-tile roof: U. S. Tile. Elastomeric rooftop recreation surface: Neogard (Auto-Gard II). Windows: Bonelli Enterprises. Glazing: PPG Industries (Solex Light Green). Entrance and interior doors: Benson Industries. Pavers: McIntyre Tile Co. Decorative tile: Kraftile. Bench seating: Phoenix Simpton.
Page 86—Suspended lighting: Peerless. Linoleum: DLW Flooring Systems. Vinyl tile: Azrock Floor Products. Vinyl wallcoverings: J. M. Lynne Co.
Page 87—Skylights: O'Keeffe's, Inc. Pendants: Shaper. Carpeting: Patrick.

Pages 88-91

San Francisco Waldorf School
Tanner Leddy Maytum Stacy Architects
Built-up roof: Manville. Single-ply membrane: W.R. Grace & Co. Metal roof: Berridge Mfg. Windows: Bonelli Enterprises. Storefronts and entrance: Kawneer Co., Inc. White-maple plywood paneling: B. K. Mills. Gymnasium flooring: Robbins, Inc.

Pages 92-95

Centennial Fountain
Lohan Associates, Architect
Vermont granite: Baretto Granite Corp.

Pages 100-103

San Jose Convention Center
MGA Partners, Architect
Pages 100-101—Metal roofing: Valley Sheet Metal. Cement plaster: French/Meiswinkle. Curtain-wall: Harmon Contract. Glazing: Alpen Glass (HeatMirror). Windows: Wausau. Tile mural: designed by Lin Utzon, fabricated by Royal Copenhagen. Entrance: Blumcraft of Pittsburgh. Awnings: Best Awning Co.
Pages 102-103—Terrazzo: Corradini. Uplights: designed by Len Auerbach, fabricated by Shaper Custom Lighting. Balustrade: Newman Brothers, Inc. Metal-slat ceiling: USG Interiors, Inc. (Donn). Escalator: Westinghouse. Seating: Thonet.

Pages 104-107

Miami Beach Convention Center
Thompson, Ventulett, Stainback & Associates, Architect
Pages 104-105—Windows, storefronts, and entrance system: WindowMaster Corp. Finish: PPG Industries. Railings: C. W. Cole & Co., Inc. Flagpoles: The Morgan-Francis Co., Inc. Marquee signage: Leeds Aluminum Letters, Inc. Glass block: Westerwald A.G. Roofing: Manville; GAF Corp. Door pulls: HEWI. Panic hardware: Monarch. Skylights: Kalwall Corp.
Page 106—Sconces: custom; Lithonia. Interior paints: Devoe & Reynolds. Ceiling tile: Armstrong World Industries. Linear air diffusers: Titus. Recessed downlights: Lightolier, Inc. Sprinklers: The Viking Corp. Flooring: American Terrazzo and Tile Co. Escalators: Montgomery Elevator Co. Interior lobby doors: Firedoor Corp. of Florida.
Page 107—Bar tile: Dal-Tile Corp.; Crossville Ceramics Co. Grid-mounted lighting: Lightolier, Inc. Tables: tops, Liberty Woodcrafters; bases, Johnson Industries. Chairs: Loewenstein-Oggo Co.



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Letters continued from page 4

I hope your designers will let this format evolve into something more exciting and varied without sacrificing the quiet elegance of the former design.

TOM DOLLE
New York City

What happened? Where did the elegantly simple and stylishly understated ARCHITECTURAL RECORD format go? I have for many years admired the look of this publication, which stands apart from all other publications in its graphic approach, but the new look simply seems mainstream, juvenile, and cheap. It reminds me of a slightly larger version of *Newsweek*. Nancy Butkus may design effective "consumer magazines," but we really don't have a consumer magazine here, do we?

It's good to see that the architectural photography is still executed with its usual unsurpassed quality.

"Less is more."

DANIEL F. GRAZIANO
LAND PLANNING
Irvine, California

Before your redesign, the front section of ARCHITECTURAL RECORD was choppy and confusing. After the redesign, the front is slightly less confusing but ugly as mud.

Two things haven't changed: the photographs are consistently wonderful, and the writing remains pompous and tortured.

ERIC MARCUS
San Francisco

I just received my January 1990 issue of ARCHITECTURAL RECORD. I was very pleased to see that fine photography still plays a prominent role in the editorial content of your magazine. The care taken in the layout and the reproduction quality are evidence of the respect your magazine has for the photography.

However, I'm puzzled by the apparent lack of respect shown the photographers themselves. The credit lines are so small that they are hard to find and read. The placement of my credit line in the gutter effectively means that a majority of your readers will not know who made the photographs of the Herman Miller/Frank Gehry/Stanley Tigerman facility.

Since the photographs easily constitute half the page space and half the editorial content of the stories, may I be so bold as to suggest that the photographers and the writers should get equal treatment with respect to their credit lines?

NICK MERRICK
HEDRICH-BLESSING
Chicago

Corrections

The heading "Apple Grows at Taliesin West," on your piece about the computer seminar at

Taliesin West, was misleading. We use Apple hardware primarily for wordprocessing, desktop publishing, and some graphic work. For our CAD work, we use PCs. Our principal machines are Compaqs. Our plotters are HP 7585s and HP Laserjet IIs.

Our CAD program is Fastcad. I do all my designing with this program, as do our young apprentices. We draw elevations, sections, details, plans—from schematic design to and including contract documents. We use Microsoft Works for spread-

sheets and time records.

I am 70 years old and have been using Fastcad for all my work. All—except that upon occasion I enjoy picking up a pencil to turn out a sketch or a rendering.

CHARLES MONTTOOTH
TALIESIN
Spring Green, Wisconsin

The headline referred to the content of the seminar rather than the center's use of hardware and software.

—Steve Ross

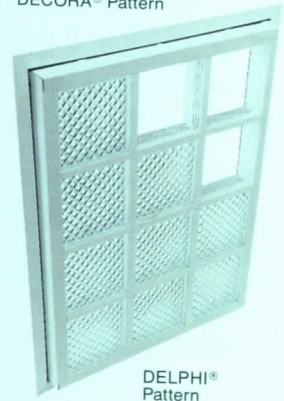
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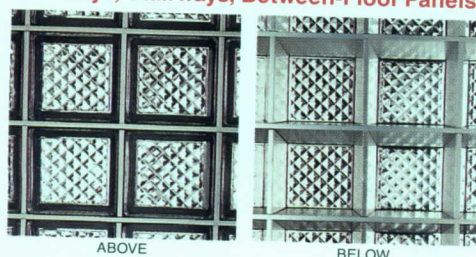


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Continued from page 150



Electrostatic plotter

Developed to meet the CAD-plotting requirements of the larger office, Hewlett-Packard's new \$45,900 Model 355 can create 36-in.-wide electrostatic drawings in 2,048 colors. All units in the 7600 line—the 355, two monochrome electrostatic plotters, and three upgraded pen plotters—use HP's new standard vector-graphics language, GL/2, and are said to offer a superior price/performance ratio. Hewlett-Packard Co., Cupertino, Calif.

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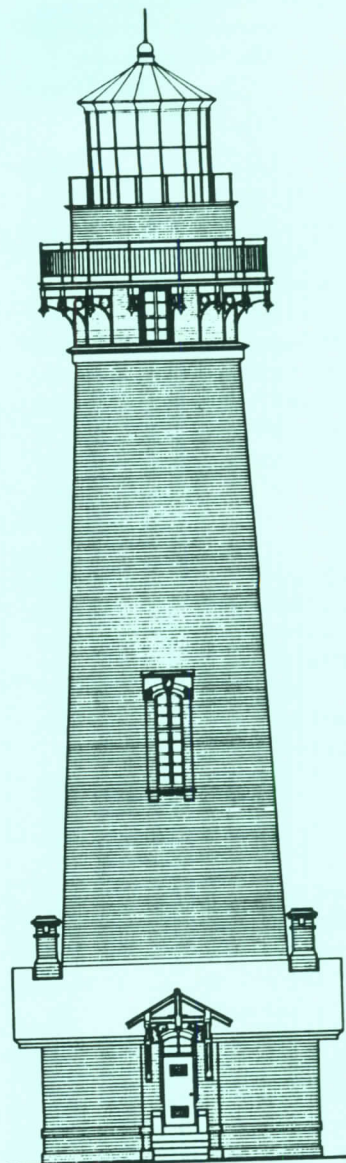


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Continued on page 163



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