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The history of low-cost housing in Dallas has been a sad story. Public housing is notably poor in both design and quality. The best "low-cost" housing came out of the private sector, but its creators soon moved on to more expensive housing because the profit margins were greater.

There is little in the way of a constituency for low-cost housing. The needy want no-cost housing, and the middle class does not want the needy nearby. The only practical answer, at least for our city, is economic incentives. These have proven to work but have not had a material impact on the problem.

I appreciated your editorial [RECORD, February 1990, page 75]. The plight of the homeless is, in my view, the most critical and solvable.

JOHN F. SKELTON
URBAN DESIGN COMMITTEE
THE SKELTON GROUP
Dallas

Your article on the Home Savings of America Tower in Los Angeles [ARCHITECTURAL RECORD, February 1990, pages 94-97] was just read for the third time. I have passed the site of construction weekly from day one and witnessed the Martin firm's commitment to architecture. I am certain that the firm's founder, Albert C. Martin, would be exceedingly proud.

The current managing partner, Chris Martin, must be congratulated, too, for his efforts to maintain the Martin ability to create an outstanding testimony to his grandfather's beliefs and memory, and yet not breach today's design virtues.

CRAIG B. KELFORD
*Rancho Palos Verde,
California*

Donald Canty's offhand negative remarks about Washington Harbour in his piece on Washington architecture [RECORD, February 1990, page 98 et seq.] are understandable if you don't know the project, which can only be appreciated by going through it via its grid of streets. Only then can one experience the basic urban design concept, which has won awards and been praised by even its severest critics.

Washington Harbour attracts thousands of people each weekend, and is the city's site for many city and family events, boat regattas, and "buona figura" strolling along its boardwalk, bordering which boats are usually triple-parked.

The project is the very opposite of the Kennedy Center and Watergate Complex, which are much larger, internalized, almost hermetic megastructures. The Harbour was conceived as a miniquarter of the city, made up of blocks to provide a series of places to stroll through along its six created streets and promenades. The architectural variety derives directly from the urban design scheme. Like any four typical urban commercial blocks in any city, one customarily sees a plethora of architectural designs done over time. Variety is an authenticating feature of an urban quarter, and is employed to reinforce the urban design premise of the project.

The variety, so threatening to Mr. Canty, is essential to the experiential townscape approach that has made it so popular with the general public. It's easy to be safe and conservative and replicating in design, and it's easy for writers to get thoroughly dizzy with the power of a word processor; however, I'm always grateful for the ink the project engenders.

ARTHUR COTTON MOORE
Washington, D. C.

Corrections
Joyce Kozloff was the artist of the tile mosaic on the Home Savings of America Tower [RECORD, February 1990, pages 94-97].

The photograph of the interior of the Inn at Langley [RECORD, February 1990, page 127] was taken by Michael Ian Shopenn.

In the report on managing new design firms [RECORD, January 1990, page 17], the spelling of the panel moderator's name is Richard L. Kobus, of the Cambridge, Massachusetts, firm Tsoi/Kobus & Associates, Inc.

The eight-sided dome in the Crown American building [RECORD, February 1990, page 80] is, of course, an octagon.

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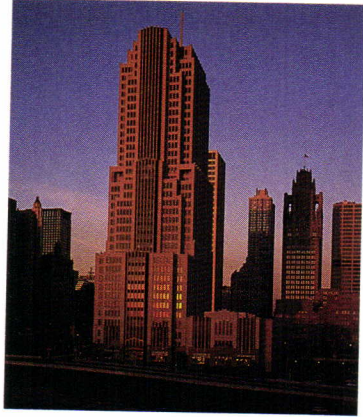
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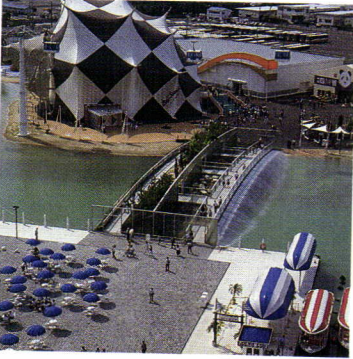
CONTENTS

FEATURES

- 68 **RICH AS ROCKEFELLER**
Skidmore, Owings & Merrill's NBC Building in Chicago pays homage to great skyscrapers of the past.
- 74 **PORTRAIT OF AN ARTIST**
John Randolph and Bruce Tomb have transformed a San Francisco warehouse into a living/working loft for a graphic artist.
- 78 **GREEN ARCHITECTURE**
James Wines, cofounder of SITE, examines the role of architecture in the built environment. SITE's Four Continents Bridge in Hiroshima, Japan, is featured.
- 84 **AQUATIC ART**
Perry Dean Rogers & Partners has skillfully inserted an unwieldy building type into a venerable college campus.
- 90 **COMPOUND COMPLEX**
David Baker Architects' parish hall for St. Mark's Church in Berkeley is laden with allusions and ideas.



Page 68



Page 78



Page 84



Page 90

BUILDING TYPES STUDY 677

- 97 **RETAIL FACILITIES: RESHUFFLING THE DECK**
- 98 **Fashion Update:** Fashion Island, Newport Beach, California; The Jerde Partnership, Architects
- 102 **Gateway to a Revived Waterfront:** North Pier, Chicago, Illinois; Booth/Hansen & Associates and The Austin Company, Architects
- 106 **Good Connections:** Napa Town Center, Napa, California; Field Paoli Architects
- 108 **A Mall with a Big-City View:** A&S Plaza, New York City; RTKL Associates, Architects

SYSTEMS/COMPONENTS

- 119 **When No Glitches are Allowed:** High-security computers call for flexibility in the design of curtainwalls, hvac, electrical servicing, and structural systems. A new computer-operations center in Scarborough, Ontario, by the NORR Partnership, represents the state of the art.

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DEPARTMENTS

15 PRACTICE AND DESIGN NEWS

34 PRACTICE

How to Land a Job in an Architectural Firm: Getting the right job in the right firm means presenting yourself in the best light. By David Greusel

39 LAW

Putting the Expert in Expert Witnesses: Self-serving amateurs who testify as experts could harm an architect in a liability suit. By Arthur T. Kornblut

41 EDUCATION

What the Job Market Holds for Graduates. By Nicholas Basta

49 PROFILE

David Neuman: The Academic Village in Exurbia. By Aaron Betsky

54 BOOKS

57 OBSERVATIONS

The Aga Khan's Balancing Act: A review of Modernism's push and tradition's pull in the latest set of Aga Khan Award winners. By Michael Sorkin

65 EDITORIAL

Changing Times

67 PUBLISHER'S LETTER

Meet Stephen Kliment

127 NEW PRODUCTS

Decorative Glass: Precise deep-carving techniques used in waterwhite glass.

129 COMPUTER TECHNOLOGY

Software reviews for architects. AutoCAD 10's 386 or OS/2: Which to choose? By Steven S. Ross

172 OUTTAKES

City Lights: Aldo Rossi's triumphal arch enlivens Galveston's Mardi Gras.

4 Letters

142 Product Literature

161 Manufacturers' Sources

166 Classified Advertising

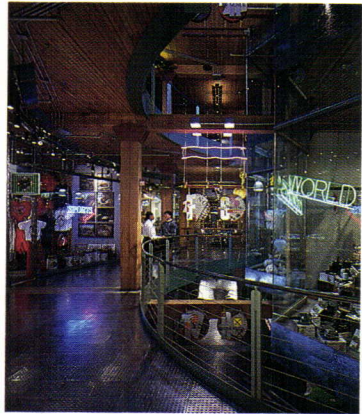
170 Advertising Index

175 Reader Service Card

COVER

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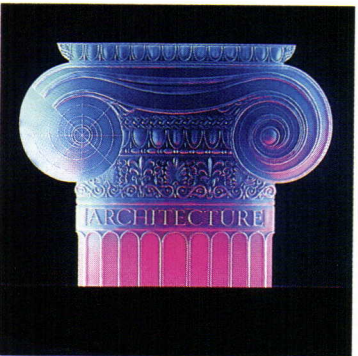
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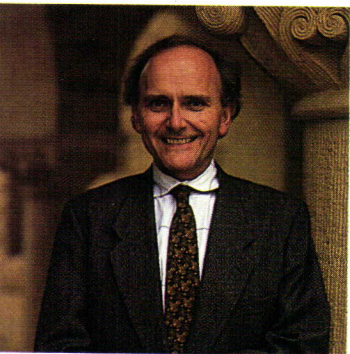
Page 97



Page 119



Page 127



Page 49

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PRACTICE

Now, Let Dodge (and Others) Do the Digging for Clients Abroad

Those U. S. architects who read [RECORD, February 1990, page 11] that they are especially well equipped to work in other countries and might have some built-in entrée could want to know their chances of finding work over there. Now, two sources promise to tell just that.

First, F. W. Dodge, which in 1991 will have been supplying current information on the status of U. S. construction projects for 100 years, has announced that it is expanding into western Europe and will be fully on-line with information on projects there by July. Emphasizing the importance of the opportunities, Dodge's managers note that western Europe now accounts for some 21 percent of total world construction compared with the U. S. share, 17 percent. The countries that build the

most, the types of projects being built, and the clients for them are among the valuable data architects can find in the reports.

While Dodge's primary focus is on the post-design stage (and is aimed at material suppliers and contractors), it has tracked many projects before architect-selection in the U. S. and will do that to the extent that the varying identification procedures of the different countries allow, according to the executive vice president of Dodge's parent McGraw-Hill Construction Information Group, Russell C. White. And, since architects already selected for these projects are identified, Dodge's daily reports will be of interest to other architects seeking joint ventures with experienced partners or who just want advice on work over there. For more informa-

tion, contact Dodge Marketing Services at 1221 Avenue of the Americas, N. Y., N. Y. 10020 (212/512-6184).

Also, a new survey tells which are the most active foreign markets for a type of commission that architects have found particularly profitable in the past, but which is currently in such short supply domestically—office buildings. The survey, conducted by an international alliance of brokers, The Office Network, covers western Europe and Canada. "Demand for European office space is growing with the coming single economic community, yet class A space is in very short supply," says Network president Thomas Driscoll. He credits an astoundingly low 2.5-percent vacancy rate (compared with 19.5 in the U. S. and 10.1 in Canada) for all classes of space and the lack of large blocks of contiguous space for driving up rents to levels that are, in some cases, more



Kohn Pedersen Fox's Goldman Sachs, London.

than 10 times those in the U. S. The cities with the lowest rates? Vienna (at 0.8 percent), Munich (1.3), Cologne (1.6), Dusseldorf and Frankfurt (both 1.9). London, with the highest rents (\$138.80), is average in vacancy. C. K. H.

Getting Clients the Direct Way

Taking a cue from both consumer magazines (which present made-over residences in a problem-solution format) and contractors (who send flyers in the mail to home owners offering remodeling services), Amenta/Emma Architects sent pocket folders containing loose pages describing their past projects in this field to a carefully chosen list of 2,500 households some four months ago. Each page shows one interior and one exterior view of a project and briefly describes how redesign solved a previous defect. For the house, photo right: "Problem: Plain ranch house in an upscale neighborhood. Solution: A build-over on the same foundation for traditional style and grace. Scope: Add 2,000 square feet of living space and completely renovate interior and exterior."



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The enclosed letter speaks in just as straightforward a manner easily grasped by laymen. It invites them to take stock of their own houses, examine how well they match aspirations, and asks: "Would renovating make

this the home you've promised yourself for years?" It describes the architects' services in a similar manner—offering to spend time with clients to discover their houses' problems and to come up with solutions, produce

cost estimates, find contractors, and supervise them.

How did Amenta/Emma arrive at their list of recipients? By purchasing the mailing list of a leading home-decorating magazine. "We wanted to come up with serious people with a discernible level of taste," explains Anthony Amenta. What were the results of the mailing? Only about a 1-percent response, but, he notes: "They are good solid leads of interesting, affluent people." He also observes that, contrary to common wisdom, the respondees want to see buildings of all types the firm works on even though they may only be interested in a house—at least for the present. Does the five-year-old firm find residential work rewarding? So much so that it plans a new mailing on contractor pitfalls that can be encountered, aimed specifically at housewives, "who often make the remodeling decisions," says Amenta. C. K. H.

WHEN THE 1989 "BUILDING OF THE YEAR" WAS ANNOUNCED, GOODYEAR CAME OUT ON TOP.



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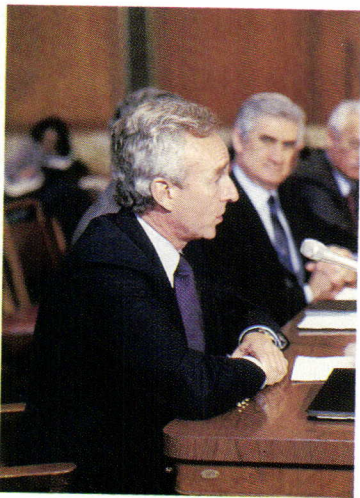
A New Agency for Preservation?

A proposed national umbrella Historic Preservation Agency to supplant existing ones is drawing a mixed reception from both architects and preservationists. But state historic preservation officers are rooting for it.

The proposal in the Senate is in two bills (the Historic Preservation Administration Act, to create a National Center of Preservation Technology; and the National Historic Preservation Policy Act, to improve the accountability of the national preservation program) both introduced by Wyche Fowler, Jr. Companion bills were sponsored in the House of Representatives by Charles E. Bonnett.

Fowler, in a late-February hearing, reminded a Senate subcommittee that the past decade had seen the weakening of historic-preservation programs to the point that the plans to build a shopping center on the Manassas Battlefield were halted only after Congress intervened—and then only because the issue stirred up so much emotion.

"We are quite simply facing the loss of historic resources on



Fowler takes the stand

an unprecedented scale," added Fowler. He cited a 1986 report by the Office of Technology Assessment that said there is a "conspicuous need for an institution to coordinate research, to disseminate information, and to provide training about the new [preservation] technologies."

While the AIA agrees on the need for a technology center, it does not support setting up a

new agency, said Russell Keune, chairman of the AIA's historic-resources committee, in the hearing. "The cause of preservation would be better served by improved quality in appointments to the Interior Department and strengthening of its National Park Service by assistance and financial support."

J. Jackson Walter, president of the National Trust for Historic Preservation, took a similar view, even while he praised Fowler as "a champion of both the nation's natural environment and historic resources." But, he added, "The Trust supports the continued administration of the national historic-preservation program within the existing but strengthened National Park Service."

The administration flatly opposes both bills. "If the bills are enacted in present form, the Department of the Interior... would recommend that they not be approved by the President," said lead-off witness Jerry Rogers of the National Park Service.

The National Conference of State Historic Preservation Officers, on the other hand, does support the proposed legislation. President Lawrence Oakes said that combining existing federal preservation functions into one agency "sets forth the ideal model for the administration of the national preservation program and will not result in a net gain in federal agencies." And the second bill would make "needed improvements in the national historic-preservation program." Similarly, The Society for American Archaeology came out in favor of the bills.

Yet another tack was advocated by Bruce Craig of the National Parks and Conservation Association whose group supports "the establishment of the National Park Service as an independent agency," as well as greatly strengthening it.

A somewhat bemused subcommittee chairman Dale L. Bumpers, who is widely credited with leading the fight in Congress on Manassas, said he had a hard time deciding on these "complex and far-reaching bills. I reserve taking a position until I have studied them very thoroughly." **PETER HOFFMANN**
Washington, D.C.

Facing the Liability in Preservation

Architects who already face increased liability must meet even more new demands when they engage in historic-preservation projects. As a result, the architect's role in that specialty must be redefined, said speakers at an American Institute of Architects symposium in February in Washington, D. C., who examined that evolving role.



Prudon and Crewdson: Emphasis on documentation is crucial.

"The architect is the primary key to success in a preservation project," explained Robert L. Crewdson, an attorney with a specialty-construction law firm in Atlanta. The liability on a preservation project is greater than on a typical project, he said at the symposium. "On a preservation project, it's essentially the architect's baby. The architect is really in the middle, doing everything, telling everybody what to do." With that increased responsibility looms the possibility of financial crisis, he cau-

tioned, especially since the architect is loaded down with many responsibilities that he might not otherwise have while working on a new building.

Both Crewdson and Theodore H. M. Prudon, associate principal of Swanke Hayden Connell Architects in New York City, said many steps must be taken in historic-preservation projects

before construction begins. Above all, both Crewdson and Prudon continually put importance on proper documentation as crucial in all historic-preservation projects. "Potential liabilities for the architect begin with the initial applications necessary for tax certification. Architects must insure that the existing structures are well documented and photographed," emphasized Crewdson in his speech.

Also, the architects in preservation practices must work out detailed arrangements in a signed contract with owners and contractors. Crewdson discouraged the use of standard industry contracts, particularly those drafted by the American Institute of Architects. Standard contracts only should be used if they are significantly altered to address the enhanced role of the architect on a preservation project. Without these precautions, firms risk construction nightmares and financially disastrous litigation, he warned. **SUSAN R. BLEZNICK**

Health-Care-Codes Analysis May Make Some Sick

In what may become a sensitive issue in the building community, the National Institute of Building Sciences is embarking on a detailed examination of how the design, construction, operation, and occupancy of the nation's nursing homes and other health-care facilities dovetail with building and safety codes.


The goal is "to insure continued cost-effective safety for the fastest-growing segment of our population—senior citizens and

others in our health-care facilities," according to Henry J. Mader, chairman of the NIBS committee in charge.

The study will use the National Fire Protection Association's Life Safety Code as a frame of reference to analyze three widely recognized model code systems used by a number of states, says association president, architect David Harris. The three are the national codes of the Building Officials and Code Administrators, International; Standard Codes of the Southern Building Code Congress, International; and Uni-

Continued on page 19

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DESIGN

Accent on Architecture: An AIA Celebration

The American Institute of Architects this year inaugurated a new gathering for its membership—a session titled “Accent on Architecture” and subtitled “A Celebration of Design Excellence.” The 1990 session was held February 18-22 in Washington, D.C., concurrently with the Institute’s Grassroots convention of chapter representatives, to focus public attention on architecture as art, leaving questions about architecture as business to the national convention in May.

The main activity of the new session is the presentation of awards to mark the profession’s own recognition of its design tal-

ents. This year, the Institute had kept only one of its design awards secret—the Twenty-Five Year Award, which went to Eero Saarinen’s St. Louis Gateway Arch. The miniconvention was also the occasion of the AIA’s presentation of its highest honor, the Gold Medal, to E. Fay Jones and of the medallist’s traditional address to the membership (below).

Other notable events at the initial Accent on Architecture included a keynote address by the Prince of Wales at the closing gala (right), and the opening of a major exhibition on Wren’s design for St. Paul’s Cathedral at the Octagon Museum. Coterminaly, Grassroots members, acting as lobbyists, met with their congressional representa-

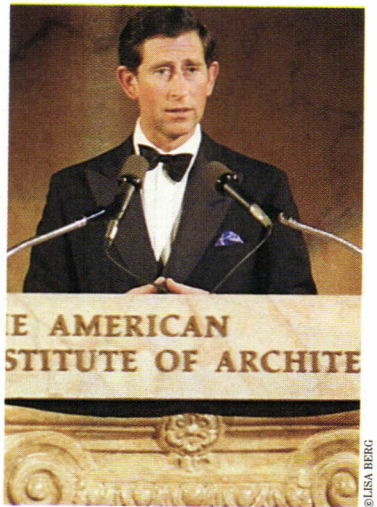
The Prince of Wales v. Architecture

One of the major events at the AIA’s Accent on Architecture celebration was its closing gala and banquet, held at the National Building Museum in Washington, D.C. The Prince of Wales delivered the keynote address.

The Prince has amply shown his interest in architecture with various pronouncements and writings, most notably in his book, *A Vision of Britain* [see also Roger Kimball’s review of Charles Jencks’s book, *The Prince, the Architect, and the New Wave Monarchy*, RECORD, November 1989, page 77].

Widely recognized as an oppo-

nent of Modern architecture, the Prince took issue in his address with the Futurist views of Antonio Sant’Elia, who he feels “looked forward to the day when buildings would last less time than we do, and each generation would have to build its own cities—the epitome of the throw-away society.”



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The 1990 Gold Medal Address



AIA Gold Medallists gathered at Accent on Architecture’s gala: from left to right—Pietro Belluschi, E. Fay Jones, I. M. Pei, Arthur C. Erickson, and Joseph Esherick.

With a speech unusual for its brevity, E. Fay Jones accepted the Institute’s 1990 Gold Medal and shared observations of his art with his fellow architects.

Because Jones sees architecture as a continuum, he voiced pleasure at some current trends. “Certainly one of the most significant and potentially fruitful developments in the cause of architecture in the past few years has been a growing concern for the preservation of our heritage

and a sense of the past as a resource in our search for form and meaning in architecture.”

While recognizing the contemporary value of historical architecture—“Any bridges to the future must connect with the past”—he still cautioned against slavish borrowing. “If one has a belief in the continuity of past and present—and future—then part of the pleasure of his work will lie in the creative connections he can make

between that work and its sources, sources not simply quoted but transformed. Various influences can be melded into modern idioms which acknowledge and pay respect to sources but also provide ways of creating new and appropriate settings...

“[Whatever] the sources of our creativity, whatever strikes our imagination, however we shape the things we do, whatever architectural language we choose to speak—[our architecture] must somehow express something more than accommodation. Its expression must transcend mere building, mere construction, mere technical achievement. As architects, we have the potential to build beautiful well-composed places, large and small, that will not only accommodate our functional needs but will stand as models which represent the best of our ideas. We have the power, and the responsibility, to shape new forms in the landscape—physical and spatial forms that will illuminate, and nourish, and poetically express our human qualities at their spiritual best.”

Reacting to what he clearly sees as the too evident technological content of modern building, Prince Charles added, “. . . I feel that if you find yourself having to *live or work* in a building that derives its inspiration from a purely mechanical or technological source, there is something wrong with your architect. . . . I understand all the arguments about being contemporary and about the need to reflect the Spirit of the Age, but what alarms me is that the Age has no spirit.”

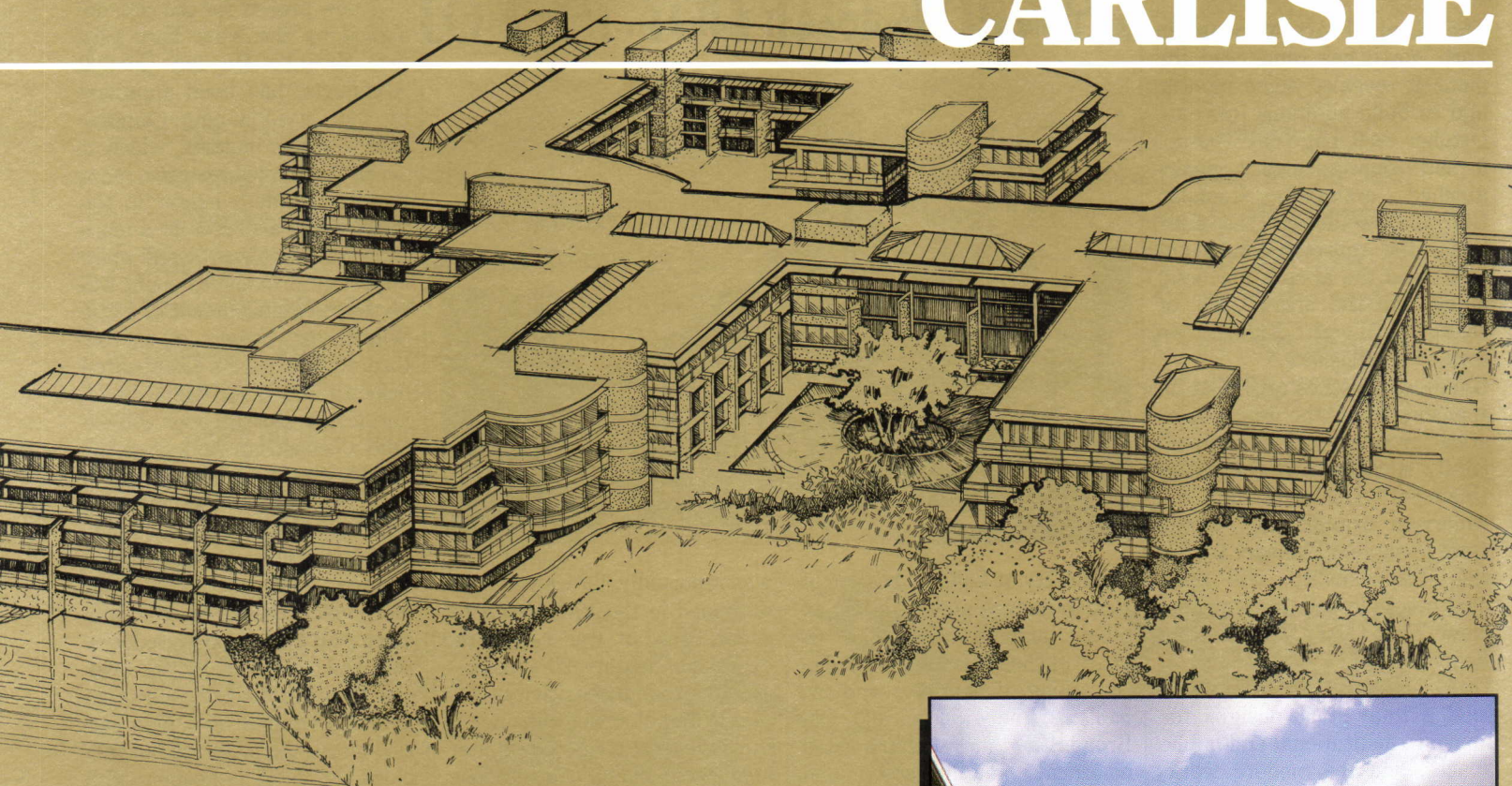
Getting to specifics, the Prince took up the issues of both the design and the details of Paternoster Square, a development near St. Paul’s Cathedral in the City of London that has engaged his attention before. “Naturally the developers of this important site have every right to expect a reasonable profit, and a development which is attractive to investors. What I question is whether there is only

Continued on page 23

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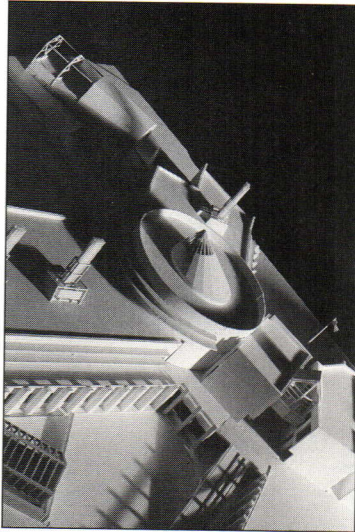
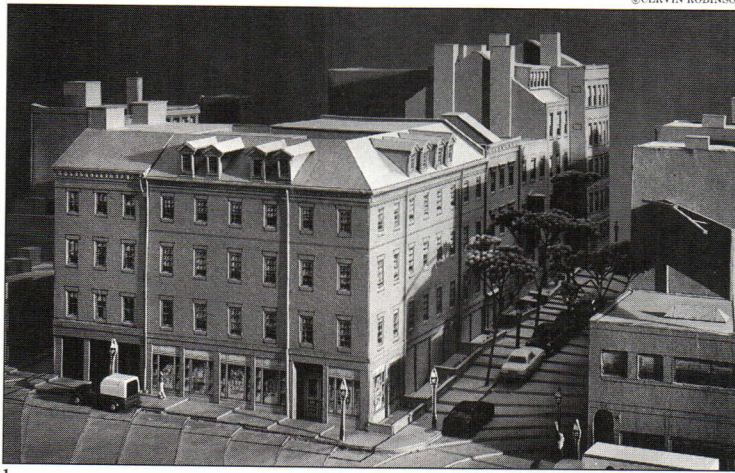
Boston's Beacon Hill will be the site of Suffolk University's new Ridgeway Building (1). James McNeely designed the building to be reminiscent of 19th-century campus architecture. It will house physical-education facilities, a bookstore, and counseling services. Below grade will be a basketball court.

Cascades One (2) is the first major building to be constructed at a new 3,000-acre development called Cascades in Loudon County, Virginia. The five-story signature building was designed by Dewberry & Davis, of Fairfax, Virginia. It will house the corporate headquarters for Cascades developer Kettler & Scott.

Trent University in Peterborough, Ontario, is constructing a new Environmental Sciences Building on its campus (3). The project is a joint venture of Richard Henriquez, of Vancouver, and a Toronto firm, Laszlo Nemeth Associates. It features offices, laboratories, and an animal-care facility.

Two Hannover Square (4) will be Raleigh, North Carolina's tallest building. The 29-story office and retail tower was designed by Gruzen Samton Steinglass, of New York City, with associate architects Haskins, Rice, Savage & Pearce, of Raleigh. The building is phase three of the Hannover Square complex in downtown Raleigh.

SUSAN R. BLEZNICK



Competition Calendar

- Mobile, Alabama, is holding a national, open, one-stage design competition for a combined city and county building to be located in the city. The registration deadline is May 18 for this juried competition, which will be conducted according to American Institute of Architects guidelines. For information: Mobile City-County Building Design Competition, P. O. Box 40471, Mobile, Alabama 36640.

- Two international urban design competitions will be held to redevelop two key sites in central Montreal: "La Cité Internationale" and "Place Jacques-Cartier." Cash prizes amounting to \$225,000 (Canadian) will be divided among the winners. Registration is open until May 15, and submissions are due August 1. Architects and design professionals can receive information from APAAM, 55 West Mont-Royal Avenue, Suite 902, Montreal, Quebec, Canada H2T 2S6 (514/849-2449).

- The American Institute of Architects is calling for entries to its 1991 Citations for Excellence in Urban Design program. The awards recognize distinguished achievements in urban design, city planning, and community development. Submissions are due June 4. For information: Bruce Kriviskey, AIA (202/626-7452).

Architecture as Merchandising Tool

Pierson Lakes will be a high-end residential development on a wooded mountainside in Stirling, New York. The development will offer 74 sites ranging in size from 4 to 14 acres and in price from \$360,000 to \$715,000.

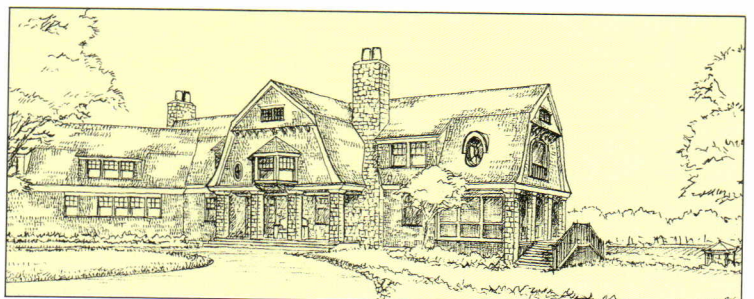
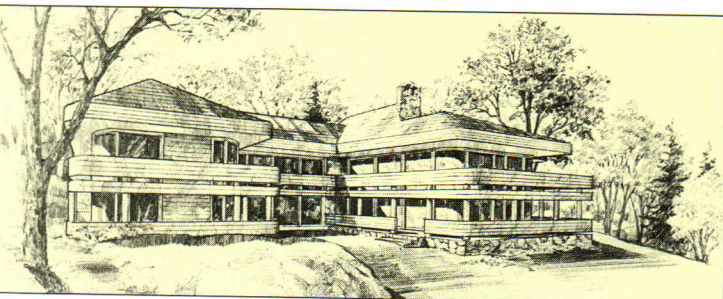
The developers imagine that the owners will choose to build custom-designed houses, and to help prospective buyers envision

the finished enclave, they assembled an architectural exhibit of drawings and models of houses designed for specific sites. The architects chosen are, according to the developers, "all specialists in designing million-dollar estate homes," and included: Robert A. M. Stern, New York City; Nadler Philomena & Associates, Mount Kisco, New

York; Allan Greenberg, New Haven, Connecticut; Robert Lamb Hart, New York City; Degensheim Denker Bodnar, Nyack, New York; Ferriss Architects, Southport, Connecticut; Jack Johnson Company, Park City, Utah; R. M. Kliment & Frances Halsband Architects, New York City; Shope Reno Wharton, Greenwich, Connecticut; Strickland & Carson Associates, New York City; Svigals

Associates, New Haven, Connecticut; and Alan Wanzenberg, New York City.

And although owners can commission their own architects, the developers encourage them to choose members of this group, already familiar with the terrain and offering stylistic variety, such as the modern house designed by Johnson (left) and the more traditional house designed by Stern (right).



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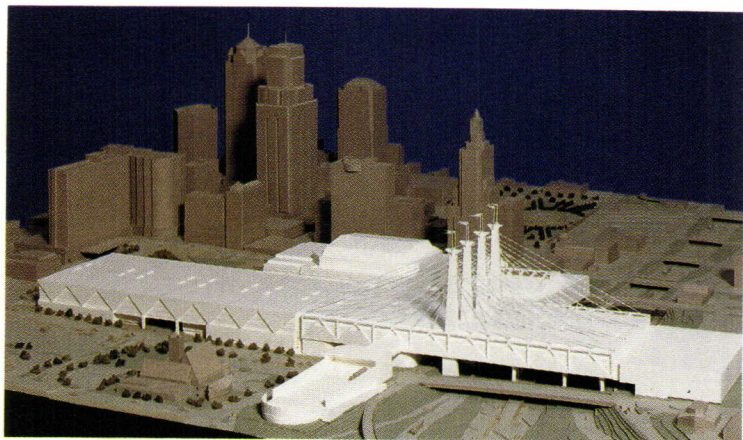


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Convention Centers — In Kansas City . . .



It has been suggested that convention centers will be *the* building type of the '90s, as cities both large and small compete for exposition business and for the traveling populace it attracts. When Bartle Hall in Kansas City, Missouri, did some preliminary research for its expansion plans, it came up with an annual figure of \$35 billion for the trade-show industry, with a growth rate of 8.4 percent annually.

Kansas City can already provide 186,000 square feet of exhibition space in Bartle Hall, but it plans more than double that space with a 670,000-square-foot addition for exhibition and con-

ference rooms. The addition is in effect a bridge over the Cross-town Freeway, but though architects Howard Needles Tammen & Bergendoff of Kansas City devised the tapered pylons and spreading cable-stays out of functional necessity, they also hope that the dramatic structure will become a symbol of the complex and a city landmark. The designers say, however, that they chose the cable-and-pylon structure not for drama but for cost. The heavy supports that would otherwise have been needed would have resulted in higher costs as well as unacceptable dislocation of freeway traffic.

. . . And Yokohama

Despite all the political and economic clamor about Japan's failure to import American goods, the country seems to import at least some examples of our architectural design (see also page 25). Moreover, it appears to be adapting some of our building types to its own use. The Minato Mirai 21 development in Yokohama will incorporate the Pacific Convention Center, to be designed by the Japanese firm Nikken Sakkri, as well as a wa-

terside park, an esplanade, and a major public piazza (below), designed by Caliendo Associates of New York City.

According to Victor Caliendo, the inclusion of such a large open space "is a highly unusual intervention in emerging Japanese developments, because there is little tradition for the design of public open spaces that are not limited to highly ceremonial or religious uses." The departure from tradition may be accounted for by the developer's aim to attract an international

In addition to bridging the freeway, the functional purpose of the cable structure was to create a 300-foot-wide column-free space for the 720-foot-long exhibition hall. Each of the 200-foot-high pylons will have 16 cables supporting the roof's box girder. The floor of the exhibition hall will be supported by a steel box girder resting on large concrete columns set between roadways that run underneath the convention hall.

Other spaces in the addition include a new entrance to the existing Municipal Auditorium, regarded as one of the chief attractions for the complex and to the exhibitor facilities. The entrance building, which will be oriented to the central business district, would connect an elevated walkway to the exhibitor space and to the auditorium. More prosaically but quite essentially, the addition will also include new truck docks for the exhibit hall.

The expansion, to cost an estimated \$99.75 million, is scheduled for completion in June 1993.

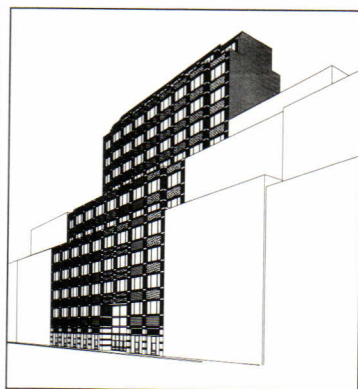
In addition to HNTB, members of the design team included architects Patty Berkebile Nelson Immenschuh, Kansas City, and architects By Design, also of Kansas City.

clientele, among whom the Europeans, at least, are accustomed to outdoor entertainment.

The piazza, which will be 250 feet across, will be partially circled by a masonry wall with square arches allowing views of Tokyo Bay. The sloping surface of the piazza is intended to accommodate exhibitions as well as theatrical and musical performances. The punched openings lead to a pedestrian walkway, on which front the center's main buildings, such as a theater and a hotel.

A Diamond in the Rough

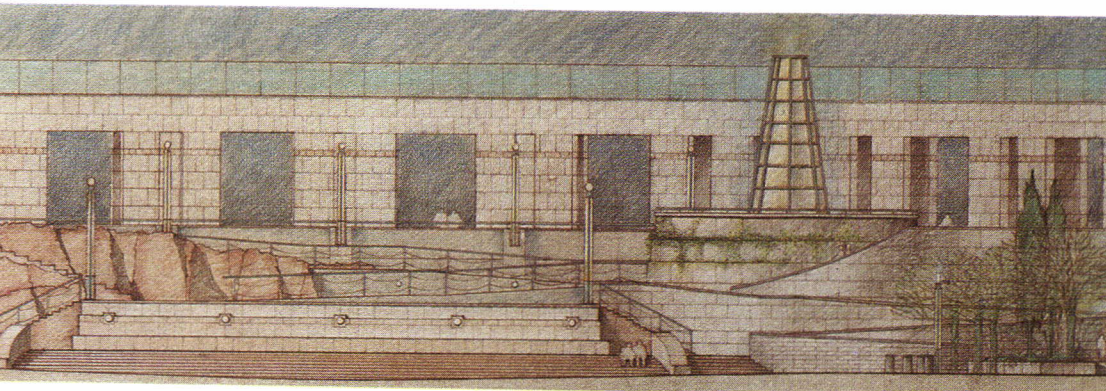
Though this small Belgian building is a most commonplace urban type—200,000 square feet of commercial space to be rented as individual offices and ground-floor stores—the contents have exceptional allure: diamonds. The offices in the Antwerp Diamond House will be taken by various diamond trading companies, and New York City architect Peter Marino + Associates adopted diamonds as an iconographic source for the otherwise simple building.



The exterior of the building was thought of as a rugged dark block encasing pure white diamonds. The most evident component on the exterior is therefore black granite mullions with pale blue-limestone spandrels. The spandrels are roughly textured except around the entrance and above the store windows, where they are chiseled with horizontal bands.

At the base of the 12-story building, stainless-steel surrounds for the storefronts and the entrance begin to show the sheen to be found inside, where the lobby is finished with reference to the glitter of faceted diamonds. Materials include light-colored marble, limestone, and stainless steel. The green and white marble floor will be composed as a geometric pattern of elongated lozenges (under the circumstances, one hesitates to call the figure a diamond). White halogen bulbs will "sparkle like gem stones," according to Marino's description.

The Brussels firm Burak & Herfurth Architects were associate architects for the building, which is located in the diamond district of Antwerp.



Solving the problem.

Street & Lundgren, an Aberdeen, Washington architectural firm, was hired to design a fire station for a nearby town. The project was completed, there was a grand opening celebration, and Street & Lundgren received the "keys to the city."

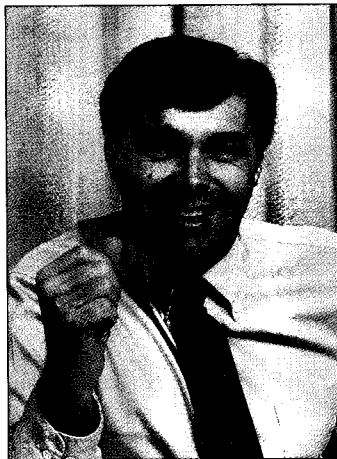
Almost six years later, the town filed a suit against Street & Lundgren. There was water leakage into the fire house and some hairline cracking of exterior masonry. The town was afraid the building might not be structurally sound.

Roy Lundgren called Dale Currie, DPIC's regional claims manager in San Francisco, and described the situation. The leakage appeared to be due to the town's failure to waterproof the structure on a regular basis. The cracking was almost certainly cosmetic, due to expansion during freezing.

Dale believed the problem was solvable.

He made two trips to Washington during the next few months; first, to meet with the town and hear its grievances and second, to conduct a roundtable discussion to mediate the dispute. It was a delicate situation. The town's building inspector was convinced the structure had serious problems. Street & Lundgren and the project's structural engineer were confident the building had been well-designed.

Dale managed to keep the dialogue open. Ultimately, the town hired a consulting structural engineer to assess the situation. This engineer's opinion fully supported Street & Lundgren, and convinced the town its fire station *was* structurally sound. Now, all that was left to be done was help the town resolve the existing problems. In the conciliatory environment established by Dale, Street & Lundgren provided maintenance guidelines for the fire station as well as advice on how to repair the cracked masonry.



Richard Dale Currie is an assistant vice president and manager of DPIC's regional claims office in San Francisco. He is a graduate of the University of California at Berkeley and the John F. Kennedy University School of Law and a member of the California bar. He has over a dozen years of experience in construction-related claims management.

Dale continued to work with the town's attorney. A year and a half after the initial action, the town agreed to a *dismissal with prejudice*, meaning it was satisfied no further litigation was necessary.

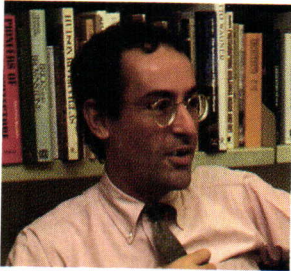
R. Dale Currie

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in mind. Write down what you imagine to be the ideal size, location, client mix, office environment, and project approach for your present career goals, and then look hard for a firm that closely fits that description. The perfect job will not fall into your lap (the perfect firm may only exist on your scratch pad), but as countless business books are quick to point out, your chances of hitting the target are far greater when you have a target than when you don't. It is not necessary, or even prudent, to reveal your target profile to your interviewer, as he will either cross you off his list immediately or skew his remarks to fit your goals. Rather, listen carefully for descriptive words (such as growing, chaotic, steady, intense) that either match or oppose your desired situation.

Knowing you have the job

It's very easy to tell when you haven't gotten the job—knowing when you have is a little trickier. All interviewers say the same three things to people they do not plan to hire: "We're not exactly sure when we'll need to add some people, but if we get that big job we're in line for..." Second, "I need to talk to my partners before we can make any offers," and third, "Thanks for coming in."

Your best clue to whether an offer is im-

minent is the number of people your interviewer introduces you to on your post-interview tour of the office. (Always politely decline a preinterview tour—you won't be introduced to anybody, and it would preclude a more productive tour later.) You say you weren't offered a tour at all? Either the office is shamefully appointed, or you were not a big hit with your interviewer from the start. If you are introduced to the interviewer's partners or superiors as well as the folks in the drafting room, start thinking about salary negotiations.

Speaking of which, although not many jobs are won through salary negotiations, many are lost there and the burden is entirely on the job seeker to guess the number your prospective employer is thinking of. Very seldom, because of the preponderance of small firms in the profession, is a salary range anything more than a notion in a principal's mind about what a person with X years of experience should be making. If your salary request is too far out of line with his preconceptions, one of you is going to come away from the table unhappy—and very rarely is the hiring principal the unhappy one. It is wise, therefore, to be armed with a good working knowledge of average pay rates for your market before you make your opening bid. This information is available from a variety of

sources, the local or national AIA being one of the best. But don't rely on national statistics—salaries vary widely from city to city based on supply and demand, time of year, business cycles, and commonly held definitions of job titles.

Nevertheless, while seeking new employment in architecture is rarely going to result in spectacular pay increases, don't be afraid to ask for what you feel you're worth, as long as it is within generally accepted limits for your age and experience. Guessing a little high could be better for you in the long run than guessing low and spending years trying to catch up. It at least communicates a healthy self confidence to your interviewer.

Taking the long view

Many people, myself included, are so flattered to receive a reasonable offer that they are inclined to accept it without considering either the long-term implications or the possible alternatives. I often wonder if my career might have been even more rewarding if had I been able to take the long view when faced with an attractive offer. Here are some of the pitfalls of short-range thinking about employment opportunities:

• *The stepping-stone approach:* "Well, this isn't really the job I'm looking for, but the firm is an established practice, and I could

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always look for a better job while I'm here." The fallacy of this view is the notion that your skills are permanently portable. While architecture is a notoriously foot-loose calling, many firms, particularly the ones you may most want to work for, limit their hiring to truly entry-level (zero to three or four years' experience) personnel. After three years in stepping-stone positions, you may be out of luck.

• **Sticker shock:** Sometimes you receive a salary offer that is just too good to be true. Often, it is. Be wary of compensation based on performance or profitability as part of what you understand to be your base pay. Bonuses are fine, and good firms pay them, but only as icing, not the cake itself. The other kind of sticker shock is a base salary offer from a corporate or government entity that makes what you could get from a firm in private practice look very unpromising. Keep in mind that the higher compensation is exactly what nontraditional employers have to pay to attract trained architects into nontraditional employment. This is not to say that corporate or government careers are unrewarding or somehow inferior to traditional forms of practice; rather, the rewards of such careers tend to be in areas such as pay, benefits, and job security rather than the sometimes-frightening exhilaration of private practice.

• **The Sally Field syndrome:** ("You like me! You really like me!") Although it would hardly seem worth mentioning, architects as a group tend to be so insecure that any real offer seems like an undeserved gift. Unless your financial situation is so dire that you must be employed immediately, don't jump at the first solid offer that comes along. Don't snub it either, but take time to consider the long-term implications of the position you would be accepting. The Sally Field syndrome has made more than a few designers sadder but wiser employees.

• **Big changes coming:** Of all the misinformation perpetrated on unsuspecting job seekers, the most common is the promise of big changes in the near future. An exhaustive list of all the big changes that have been promised (but not delivered) would be voluminous. Here is an abbreviated sampling: "We're moving in a few months to a much nicer office." "Our founder is retiring at the end of the year." "We're experimenting with a new project-management system that will greatly increase the authority of staff architects." "We've been in a down cycle, but don't anticipate any more layoffs." "We recognize that the partners are going to have to delegate a lot more responsibility in the future." If you hear of big changes coming, either take them with a large grain of salt, or, if they would strongly affect

your desire to work for his firm, tell the interviewer to call you back when the big changes have actually come.

A few things everybody should know

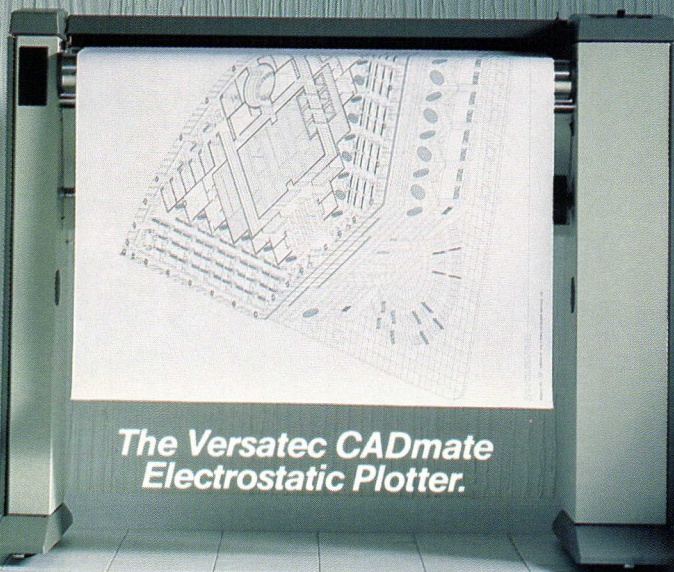
The hiring game is not unlike the dating ritual in our society: Two parties, in this case a job seeker and a firm, try to find out all they can about each other, while at the same time revealing only what will portray themselves in the best light. While no one wants to reveal his worst qualities, it is to your benefit to be as candid as possible about what you are looking for.

Remember that this dance is probably as awkward for your potential employer as it is for you, that your ultimate objective is to form a lasting and mutually beneficial relationship, and things will go well. On the other hand, if you are evasive, defensive, or not straightforward, you may make an employment decision you'll both regret for months, or even years. □

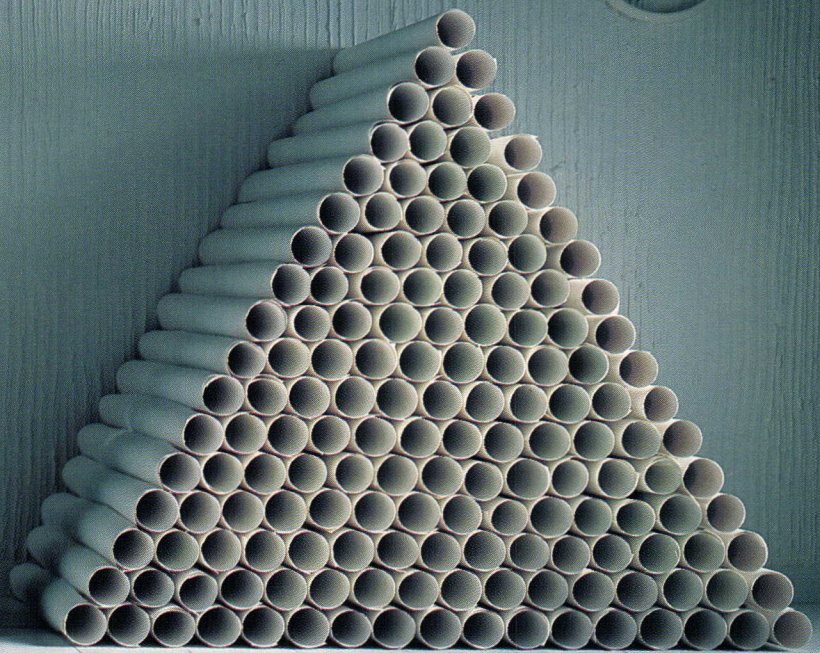
Mr. Greusel is a project architect with Abend Singleton, Inc., in Kansas City, Mo., and has had extensive experience with hiring practices from both sides.

In the May issue of RECORD, Mr. Greusel will examine hiring from the point of view of the employer.

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Self-serving amateurs who testify as expert witnesses could harm rather than enhance an architect's defense in a liability suit.

Hardly a week goes by without the mail bringing yet another brochure, letter, or inquiry from someone offering to provide services to members of the legal profession in need of an "expert witness" for construction-related litigation. And this is in addition to the ads that appear regularly in various bar-association periodicals. The proliferation of self-anointed construction-claim experts has become a bane of the industry, generating controversy and weakening the process by which our legal system judges the liability of design professionals. All too often, many so-called experts are far more proficient in self-promotion than in true professional expertise.

It is not too difficult to identify a primary cause behind the growth of the business of marketing oneself as an expert—construction litigation does require testimony from expert witnesses, but active, successful architects and engineers often do not want to get involved as an expert in someone else's problems. A vacuum exists that has been filled by others.

Judicial concerns about the potential for misuse of expert witnesses in litigation are not unknown. In an interesting commentary on this subject, a federal appeals court a few years ago urged trial judges to "take hold of expert testimony in federal trials" and not just toss this off to the jury under a "let it all in" philosophy. Further, the court said that "judges ought to insist that a proffered expert bring to the jury more than lawyers can offer in argument." If these cautionary words from the appellate bench are observed, there is little doubt that the role of a properly qualified, well-informed expert witness can be a valuable part of the legal process.

Why the need for expert witnesses?

Rule 702 of the Federal Rules of Evidence succinctly sums up the answer: "If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise." This rule recognizes that some issues may be too complex for the judge or jury to understand without guidance and the court is

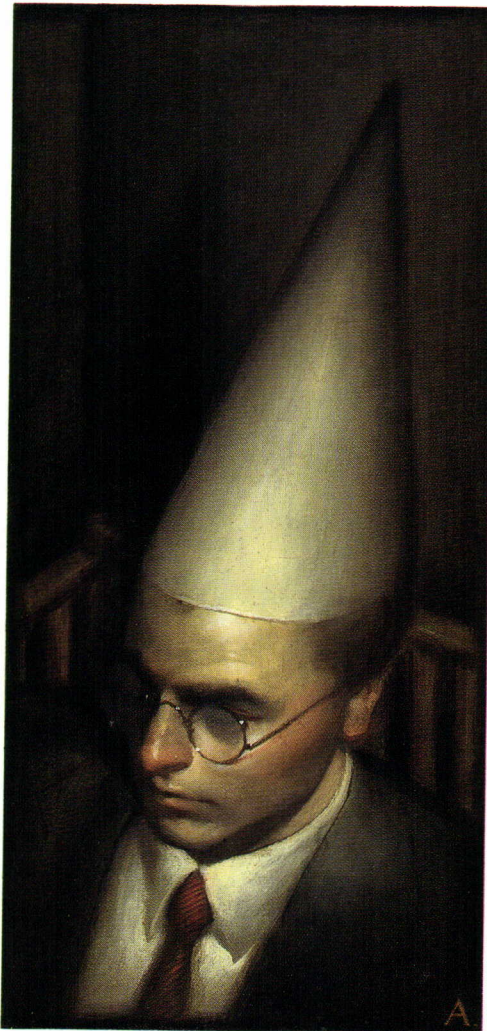


ILLUSTRATION BY DANIEL ADEL

given fairly wide latitude whether to admit the testimony of experts to provide that guidance. This certainly is true in most construction-related litigation, as well as in claims alleging professional negligence.

It is fairly well recognized both in the architectural profession and in the courts that (unless modified by ill-advised contract language) the legal relationship between an architect and owner is based on only an implied promise that the architect, during the performance of his professional services, will exercise the degree of care ordinarily expected of other architects under the same or similar circumstances. There is no implied warranty of perfection or that any particular result will be achieved by the professional's services.

Because of these legal principles, as well as the highly technical nature of architectural services, courts in many states have specifically adopted the rule that expert testimony is required to establish the standard of care applicable to an architect's services. The only exception to this requirement occurs when the matters at issue (the architect's duty and the alleged breach) are considered within the scope of ordinary lay knowledge and experience.

A few precedents

In a 1988 decision by the Virginia Supreme Court (*Nelson v. Commonwealth*), the court held that the practice of architecture is sufficiently technical to require expert testimony to establish the standard of care and any departure therefrom. The court explained its rationale thus: "The trier of fact is not permitted to speculate as to the professional standard against which to measure the reasonableness of an architect's actions or inaction."

More recently, the Georgia Supreme Court also had an opportunity to consider this issue, but in a somewhat unusual context. Georgia has enacted a statute that requires the plaintiff in a professional-malpractice action to file, with the complaint, an affidavit of an expert who is competent to testify in the litigation. The affidavit must set forth at least one negligent act or omission claimed to exist and the factual basis for each such claim. Although the statute appeared to relate to medical malpractice claims, the Georgia court extended it to encompass all professional malpractice claims, including those against architects.

In this case, (*Housing Authority of Savannah v. Greene*), the housing authority had been sued because a resident of a municipal housing project died from carbon monoxide poisoning. In turn, the housing authority sued the architectural and engineering firm responsible for the design and construction of the project and its allegedly faulty heating system. The court first analyzed whether the statute requiring an affidavit in professional malpractice actions applies to suits against design professionals. Consistent with the holding by the Virginia supreme court, the Georgia court ruled that persons who perform architectural and

Continued on page 167



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WHAT THE JOB MARKET HOLDS FOR GRADUATES

Though architectural firms are hiring fewer new graduates, there are opportunities for those who consider alternatives to design jobs.

In its just-published Occupational Outlook Handbook, the U.S. Bureau of Labor Statistics estimates that the number of architect positions in the United States in 1988 was 86,000. Other BLS studies project that the number of positions will rise by 25 percent, to around 107,000, by the turn of the century. That compares quite well with the overall projection of 15-percent growth for all professions, indicating that architecture will grow more rapidly than most other forms of employment.

Is the profession on such a growth track? Will the coming decade be a strong one for both the number of jobs opening up, and the number of graduates seeking them? Most significantly, how is this spring's recruiting season shaping up?

Interviews with architectural firms, associations, and schools point up a number of positive signs. However, most observers agree that the current year is an off one for architecture graduates, compared to the past two or three years.

"Last year, we were able to place 90 percent of our graduates in jobs before or soon after graduation," says Sidney Shelov, dean of the school of architecture at Pratt Institute, Brooklyn, N. Y. "This year, we do have some firms coming on campus to recruit, but I strongly doubt that we will reach that level of employment."

"The job market is flat," says Richard McCommons, executive director of the Association of Collegiate Schools of Architecture, Washington, D. C. "It had been a seller's market for jobs, with the advantage to new graduates, who were seeing slightly higher salaries. But now, while employment isn't growing, very few people are being laid off, so the job market isn't winging widely in either direction," he concludes.

Regardless of the ups and downs of the job market, it is a "universal lament," according to AIA's senior director of education, Lois Thibault, AIA, to bemoan the rather low salaries architects earn, relative

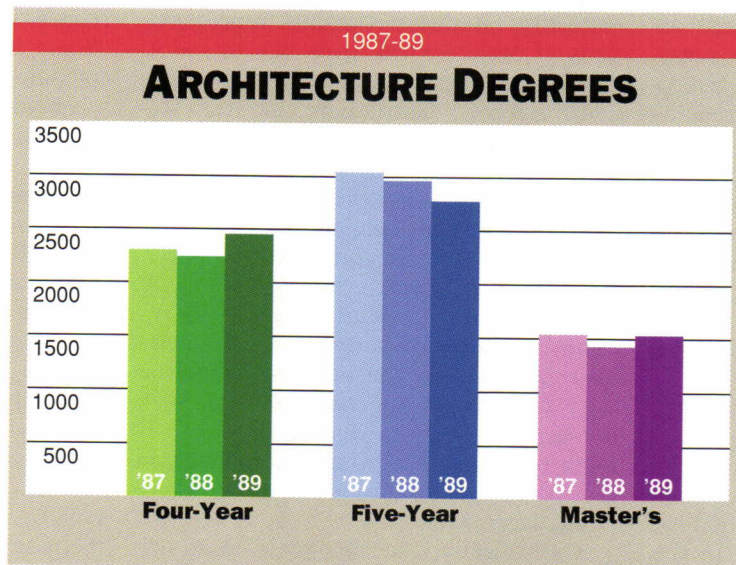


CHART BY ELIJOT BERGMAN

A rising number of degrees awarded in four-year and master's programs has offset the declining number of graduates in five-year programs.

to the amount of schooling they undertake. The annual surveys of college recruitment offices by the College Placement Council, Bethlehem, Pa., showed that 1989 graduates won salary offers of just over \$22,000, which is on a par with such traditional liberal-arts careers as marketing or sales, but well below what most engineers or scientists earn, at the bachelor or master's level.

Data from AIA round out the compensation picture of young architects. According to a 1989 survey ("The 1989 AIA Firm Survey Report"), the average salary of architect interns was \$23,000 in 1988, up 7.8 percent from the survey results of two years earlier. (The formal definition of an "intern" is an "individual with a degree in architecture, working toward licensure.") By comparison, the "principal/partner," the highest position for architects, had average earnings of \$62,100, up 15.4 percent from 1986. And sole practitioners had average earnings of \$47,800, up 17.2 percent from the earlier survey.

Enrollment trends

The number of graduates of all types of architectural programs has remained un-

usually steady. Statistics from the National Architectural Accreditation Board (Washington, D. C.), which keeps tabs on these numbers, show that there has been hardly any movement at all in each of the three types of architectural degree: four-year bachelor programs; five-year professional-degree; and master's of architecture (see chart). The total number of 1989 graduates, 6,804, was down a minuscule 0.5 percent from 1987's total, 6,838.

That's good news, in the sense that many other academic programs for professionals, such as engineering or medicine, have shown declines over a similar period. While the total number of all college students in the United States over the past three years or so has risen slightly, more of them are "nontraditional" students, i.e., not 18-year-old high school graduates. That age group is in the midst of a 25-percent decline that began in the mid 1980s, and will continue through the early 1990s. For architecture programs to keep enrollments level during this period, a proportionately greater number of 18-year-old students must choose architecture.

Although actual numbers are hard to come by, anecdotal evidence suggests that there is a higher degree of interest in alternative careers for architecture graduates. Douglas Bailey, current president of the American Institute of Architecture Students, Washington, D. C., says that a panel devoted to that topic was heavily attended at AIAS's annual Forum, held last November. "Alternative careers includes things like set design, architectural writing or photography, and law and development," he says. "The interest level was extremely high at the meeting."

Robert Utzinger, AIA, director of the school of architecture at Montana State University at Bozeman, says that he has written several letters of recommendation in recent months for architecture graduates intending to study business or law, and a couple for environmental science.

“I’m impressed with students we interview who express a desire to be a project manager or construction administrator, rather than a design-oriented architect.” *David Whiteman, HOK*

But this pursuit of nontraditional careers has been a constant over the years, according to Richard McCommons, executive director of the Association of Collegiate Schools of Architecture, Washington, D. C., and a former director of an architecture department. “A choice of architecture as a field of study is easy to make when you’re starting college,” he says, “and four years later, you’ve got many more career options. It’s always been the case that students choose alternative careers.”

One alternative career in especially high demand right now, says McCommons, is university-level teaching. “The amount of advertising lineage devoted to academic positions in our association publication has tripled over the past few years.” In this field, a combination of demographics, university economics, and career interests has created the shortage. It is common now for schools to offer “non-tenure track” positions to architecture teachers, because the number of tenured positions are at a maximum, and because schools are trying to rein in costs across the board. And the reason there are so many tenured positions now arises from the education boom in the 1960s, which drew many architects into academia rather than into practice. Finally, today’s graduates, more career-driven, want to practice as soon as they can. “It used to be the case that an architect could bounce back and forth between practice and teaching early in his career,” notes McCommons, “but today’s graduates feel that they may be slowing down their career development if they teach for a number of years.”

As a number of tenured faculty from the 1960s begin retiring, more tenure-track positions will open up, so the system is self-correcting over time. But McCommons says that teaching may never go back to what it was a couple decades ago, with many tenured positions open. “This isn’t necessarily a bad thing; it keeps the faculty pond stirred up” to have new teachers entering regularly.

What employers are seeking

Many other observers agree with McCommons’s point about the greater importance of career development among today’s ar-

chitecture students. Campus representatives of architectural firms like to see it; academic deans are promoting it through more rigorous instruction; and the students themselves are stressing it.

“I’m impressed with students we interview who express a desire to be a project manager or construction administrator, rather than a design-oriented architect,” says David Whiteman, director of operations for the St. Louis office of HOK. “They’re showing courses from the engineering school or the business school on their transcripts; a generation ago, such non-design interest was unheard of. It tends to make me more willing to invest in that person, and to bring him or her along a fast career track.”

Academically, the change is most evident in the professional-practice courses that students take. “Putting more rigor in the professional-practice courses is the coming thing,” says ACSA’s McCommons. “Not necessarily more courses, but more formal training, with case studies and more technology.”

“It’s a dramatic difference,” agrees Nestor Infanzon, AIA, a project architect and campus representative for the Dallas office of RTKL. “When I took these classes, there was no business training; we learned how to socialize, and were advised to call the local AIA office whenever a contract issue came up. Now, students have training in business, finance, law, and computers.”

The impact of computers on the profession, and on the improved chances of getting a job, is universally acclaimed. “Some students have written back to me a couple years after graduation, thanking us for stressing computer skills in our program,” says Montana State’s Utzinger. “In some cases, having that training was the reason they got their jobs.”

“We have more computer courses in our curriculum, and some recruiters have asked for graduates with computer training,” says Pratt Institute’s Shelov. “It gives the graduate one leg up in competing for jobs.”

But Shelov and others are quick to stress that traditional design and drawing skills are still the preeminent attractions for graduates’ job prospects. “A good port-

folio is the most important thing,” he says. “Some architectural firms are more into computers than others, but in either case, a computer is just a tool; it doesn’t think and design for you.”

The campus connection

According to a number of sources, RTKL is one of the best representatives of a growing trend among architectural firms—increasing their presence on the college campus through recruiting and internships, and seeking to grow their architectural staffs internally, rather than simply hiring off the street when business is good.

“We visit over 70 campuses each year,” says Infanzon, while noting that some of RTKL’s offices have grown fourfold over the past five years. The firm also hires experienced architects, with the overall goal of getting the best “blend” of talent and experience in each of its offices.

At HOK, director of operations David Whiteman says that the firm has sought to develop ties with Washington University of St. Louis (which was the alma mater of several of the founders of the firm), Kansas State University, and Kansas University. “In prior years, we did very little recruiting, and made few campus contacts,” he says. “Now we see the close connection as being a mutually beneficial strategic alliance. We get to look at top graduates, and by contributing such things as our computer software to the college programs, we can help turn out students trained in our way of doing business.”

RTKL’s Infanzon says that the alliances it is forming will help it broaden its base of projects over time, while minimizing the expense of staffing. It also fits with a project-team organizational structure that the firm has established, in which each project is handled by a group of designers, detailers, and construction managers, with project roles shifting over the duration of the project. “With the blend of talent we are developing, and our style of organization, it’s easy to justify spending, say, \$10,000 on increased campus visits this year, in order to have a suitably trained team of architects several years from now,” he says. □

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

THE ACADEMIC VILLAGE IN EXURBIA

After making his mark at the University of California at Irvine, David Neuman has moved on to Palo Alto, where he is now campus architect at Stanford.

The University of California at Irvine has become an architectural showcase, and one man is responsible: former campus architect and vice chancellor David Neuman. Now campus architect at Stanford University, Neuman found at Irvine a university built as a model of 1960s planning and transformed it into a paradigm for 1980s place-making. Signature buildings by Frank Gehry, Charles Moore, Robert Venturi, Eric Owen Moss, and Robert Stern have already been completed, and the likes of James Stirling are about to make their contribution to a campus-wide building campaign amounting to over \$400 million worth of construction. More importantly, Neuman's attention to the creation of academic villages through an emphasis on the physical interrelations among buildings and landscaping presents a working model for the creation of individual identities within the unchartered terrains of exurbia.

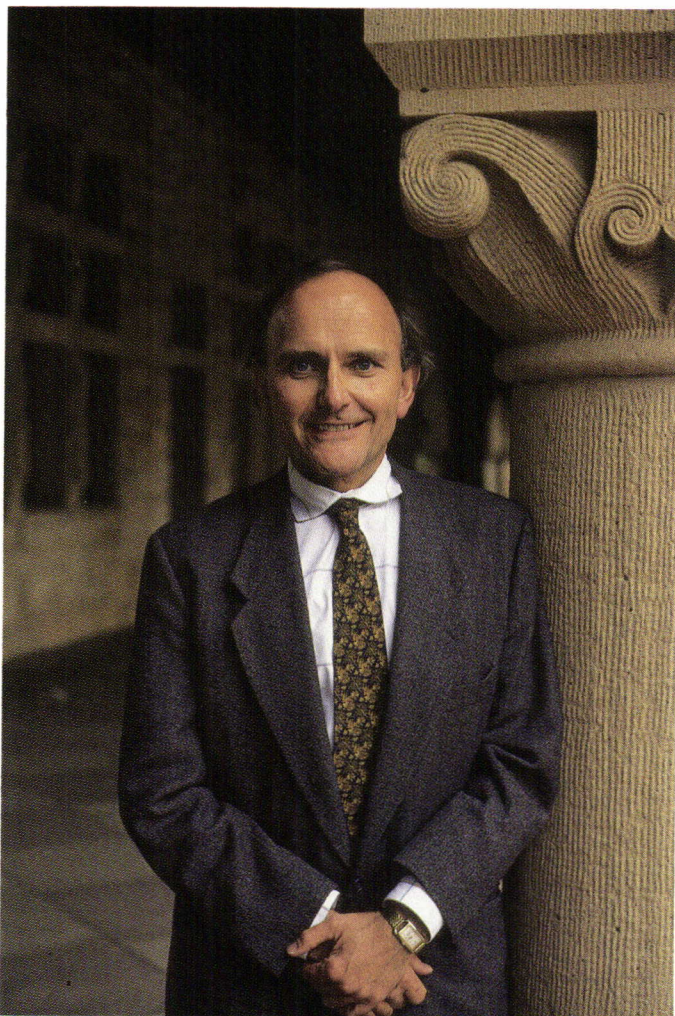
Neuman is not just a bureaucrat. He is a licensed architect who has chosen, in his words, "not to be pigeonholed into a practice." He champions an architecture based on programming, planning, and collaboration that leads to what he calls "empowerment"—a built environment that is not only more responsive to human needs, but also one that incites response from its inhabitants. The necessary ingredients, according to Neuman, are "a human scale, an involved client, and strong architecture." Neuman has chosen to work in university settings because he believes that they are "about being on the cutting edge—as architecture should be." In Neuman's mind, the campus should continue the tradition of Thomas Jefferson's "academic village" as a model for urban form. Surrounded by institutional bureaucracy, Neuman maintains that he is "an idealist and optimist" who prefers to see his role within the architectural profession not as securely isolated from the anxieties of a daily practice,

but as a place to experiment. At the very least, he has proven to have the political skills necessary to attract internationally known architects, financing, and public attention to his ambitious undertakings.

Raised in rural Ohio, Neuman was trained at the universities of Michigan and Notre Dame. "I was in school during the 1960s, when there was a heavy emphasis on programming, interactive design, and issues of social commitment," Neuman explains. Convinced that he would not be satisfied creating singular buildings for private clients, he started work for the campus architect of Bowling Green University. While there, he also obtained a Masters degree in American Studies (he now holds a doctorate in Urban Planning

from UCLA as well), and continued to speculate on the relationship between physical planning and human behavior. Yet the brand-new campus of Irvine he joined in 1977 would seem far away from social concerns: situated in affluent Orange County, it was the centerpiece of William Pereira's master plan of the early 1960s. The campus was organized around an empty, circular park with six quadrants radiating out from the core connected by an inner pedestrian ring and an outer service ring—an abstract, Modernist set piece. The buildings, all designed by Pereira, were large, intimidating, and divorced from either their setting or individual user needs. A set for the movie "Planet of the Apes," Irvine was the very model of utopian, and inhuman, Modern architecture.

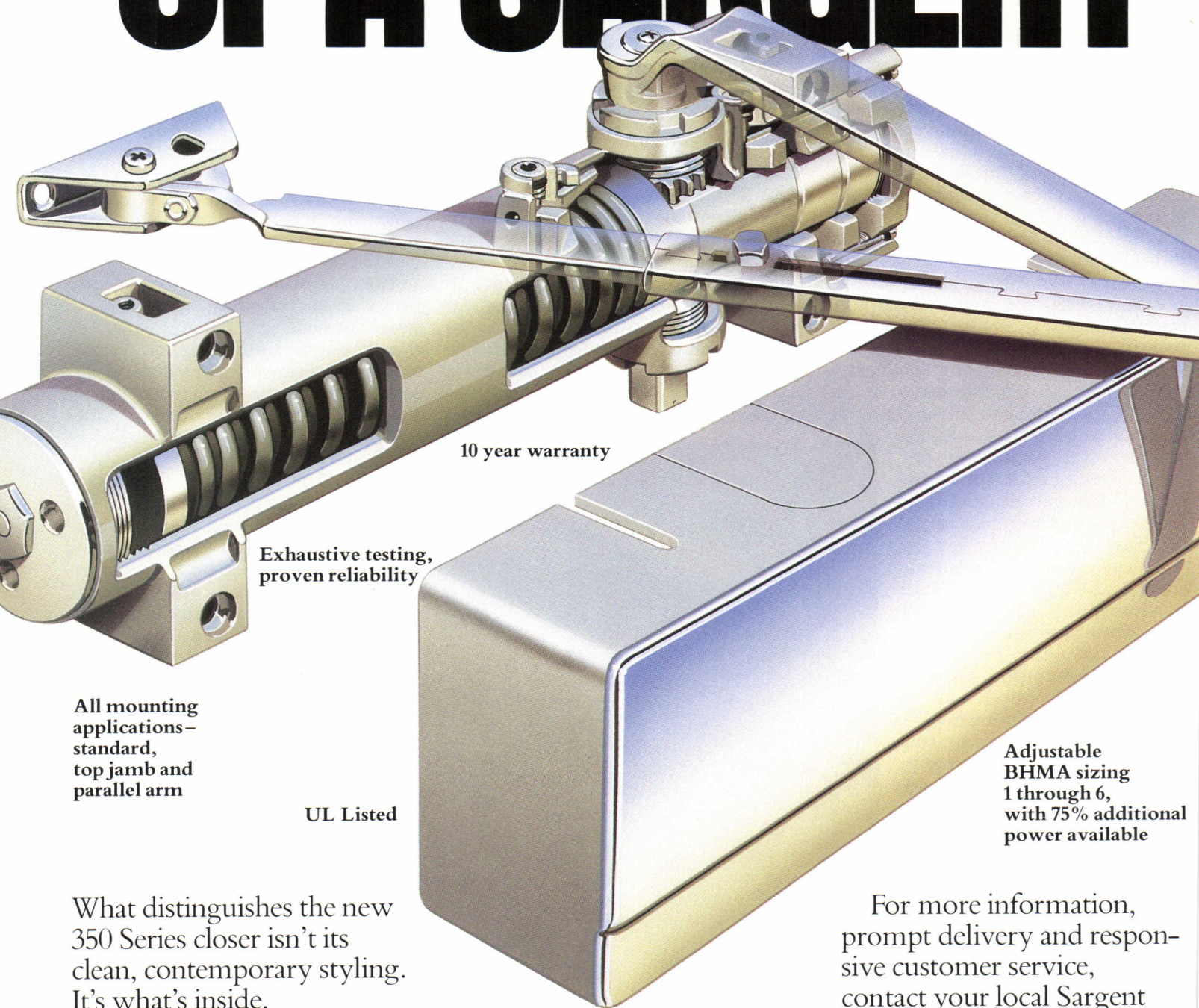
"Luckily, I got there when there was no actual building going on, so I had time to listen," Neuman recalls. What he heard was that the campus was "overscaled, isolated . . . designed from the outside in." Neuman proposed another working method, one that involved the client, landscape architects, and planners at every step. This method would ensure that new buildings would not stand outside of the political process and might loosen up money for "the glue that holds it all together" (landscaping). But it also meant that the buildings could be (and in the end often were) deformed by that very same political process. Specifically, Neuman proposed developing the radial spokes of the Pereira plan, which he chose to accept and try to refine—"his bravest move," says UCLA campus architect Duke Oakley. He then tried to create a "neighborhood" along each of these paths. Each district would be built around related academic disciplines. "If each faculty or user group is heavily involved and accepts the regional context, they will become constituents and advocates for their neighborhood, support them, and develop [its]



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David Neuman, campus architect at Stanford University.

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Frank Gehry's engineering complex is one of the signature buildings Neuman commissioned at Irvine.



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Eric Owen Moss designed a housing office that keeps students and administrators off-balance.

character," Neuman predicted. What was needed was a series of architects to give separate, clear identities to each neighborhood, while accommodating the particular end users.

Neuman started with Venturi and a business school that, though a rather plain object, responds to changing grades with an outdoor staircase. Up the hill, he commissioned Moore to design an Italianate village comprising an alumni center and continuing-education facilities. On the other side of the hill, Moss terminated the path with a metallic slug housing the housing office. Other nodes include engineering buildings by Gehry, student housing by Fisher Friedman Associates, and the site of a proposed science library by Stirling. The quality of the buildings is not equal, but few deny that the route past all of them is rich, varied, and often startling.

Before he left Irvine last year, Neuman also attacked the core of the campus, commissioning Rebecca Binder to create an expressionistic food-service building next to the "sacred heart," in the hope that this little structure will draw people toward the underutilized central park. He also started the development of a "Main Street" leading from an adjacent shopping center to the park. Thus, Neuman hopes to create "an active and a passive heart" that exists

in connection with, but separate from, the academic villages.

Neuman has been criticized for accepting the separations created by the Pereira plan, most caustically by Pereira's successor firm, which proposed overlaying a different organizational system on the campus. What is more, Neuman has come under attack for what one local architect calls "building for the design awards." Yet Neuman maintains that both the transformation of the original master plan and the commissioning of his beloved signature buildings were part of a well-thought-out approach. "Our model was the early neighborhoods of Irvine [the town], where there was an attempt to give each an identity that was strengthened over time." What was missing from the town, however, was "a strong signature . . . that sets the tone and allows you to identify each neighborhood." What was also missing was a sense of communal space. But a university, "which is supposed to not only educate and engage in research, but also service its community," could, and did in fact, invest in the development of an identity and of shared spaces. If the experiment is successful (Neuman himself admits that will take time to ascertain), it will serve as a model for the kind of isolated developer communities of which the town of Irvine is

only one of many examples. Although social and economic forces help shape such monotonous and discontinuous entities, Neuman argues that architecture has an ability to transform them into satisfying communities.

"I doubt whether what David has achieved at Irvine can in fact work out there," Duke Oakley comments. "A campus has a clear set of goals and decision-making hierarchy." Yet the model remains a compelling one, and Neuman claims that it is being studied by Irvine town planners and politicians, many of whom are faculty members. Yet he concedes that even the relatively small-scale political struggles of a university—levels of bureaucracy, the policy of allocating budgets only for programmable areas, not to mention a general distrust of architecture—make it hard to realize his plan.

Not surprisingly, since Neuman left Irvine, the whole mood of the planning process has changed: one architect working on campus feels as if he were "thrown to the wolves" since Neuman's departure. Ironically, Neuman's political skill may be a fundamental flaw in his scheme. "David knows how to swim with the piranhas," observes Moss, "He's a manipulator, and that's both good and bad. He's egalitarian and wants to give everybody an opportuni-

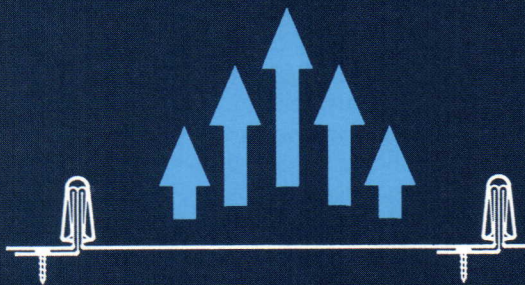
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Rebecca Binder's expressionistic food-service building draws people to the park at the center of the Irvine campus.



Binder's interior is sleek and light.



Fisher Friedman Associates designed a student housing complex to give it a villagelike character.

ty, but he is not that much interested in values." In the end, Neuman's plans may be attractive, but they can only work by refusing to choose one building approach over another. In this light, both Neuman's eclectic choice of architects and his avowed love for landscape may seem an avoidance of the kind of fundamental choice among design languages, attitudes towards construction, and physical planning that both campuses and new communities must make. "In the end," Oakley adds, "his influence was positive. He showed that architecture can make a difference. He proves the need for a translator, someone who isn't concerned with budgets or leaky roofs, but who argues for physical forms, to give a fundamental shape to a campus."

It is that fundamental shape that continues to fascinate Neuman now that he is at Stanford. "I came to a place with an established visual image and had to confront a whole other set of issues having to do with adaptive use and preservation, which ties in nicely with my own interest in history. But Stanford has also been in the forefront in developing its vast real-estate holdings in ways that involve the community, with shopping malls, hotels, medical centers, and research parks." While at Irvine, Neuman developed a mixed-use concept for part of the campus, and at Stanford he wants to

continue "thinking about what happens when the various zones of use, and of clients, start to overlap." Rather than creating large buildings that meld various functions, Neuman hopes to find ways of forming compounds that give each group its own identity, while using landscape to create connections. "I keep going back to the original Richardson and Olmsted plan," he says, pointing at the map over his desk, "a campus that looks outward, and opens to views," made up of discrete buildings interconnected by arcades. Neuman wants to preserve and, in many cases, restore the original scale and texture of the campus, thereby making a distinction between "those things that really need to be in the central campus, and those things that we can put in surge space, constructed with tilt-up panels like much of Silicon Valley around us." He has already started working with Venturi on a new science building, but "the earthquake put most things on hold, which will allow me to once again get into the listening cycle." Given some of the egregious mistakes made on the Stanford campus recently, including a Kohn Pedersen Fox business school that aggressively steps into the formal oval fronting the whole campus, his time will be well spent. Beyond those problems, the severe restrictions placed on any strategy of adaptive

use by the existing architecture, on the one hand, and the economics of building practice and land development in exurbia, on the other hand, loom large. Stanford, unlike Irvine, is hemmed in by mature communities with their own agendas, and is also an aggressive and profitable landowner which has to fund itself partially out of efficient development.

But Neuman thinks at a large scale and for the long term. He is already speculating about his work at Stanford in terms of its regional implications. By thinking in those terms, he does not worry about leaving a monument with his name on it: "I'm working on the scale of the whole campus... I hope that I will have started a tradition that is more than a building, but will be part of the campus's culture." Luckily for Irvine and Stanford, that tradition is based on an understanding that it is buildings and landscape, in all of their complexity, quirkiness, and assertive clarity, and not simply abstract ideas or large sums of money, that will form and sustain great institutions. It can only be hoped that communities now taking root in still unformed locales will learn from both David Neuman's achievements and from his mistakes. □

Aaron Betsky is a Los Angeles-based freelance writer.

ARCHITECTURE FROM THE EAST AND WEST

Two books on the shaping and viewing of architectural space underline cultural differences between Japanese designers and those in the West.

Rediscovering Japanese Space, by Kisho Kurokawa. New York: John Weatherhill, 1988, \$29.95.

Design Strategies in Architecture: An Approach to the Analysis of Form, by Geoffrey H. Baker. London: Van Nostrand Reinhold, 1989, \$42.95.

Reviewed by Ellen Posner

An English-language adaptation of a collection of Kisho Kurokawa's essays first published in Japan in 1984, *Rediscovering Japanese Space* covers a range of architectural issues, from the purpose of ornament and the use of historical allusion to the configuration of cities in the 21st century. But Kurokawa, who was one of the founding members of Japan's Metabolist group, focuses primarily on the ways in which the Japanese perceive, think about, and organize three-dimensional space.

The book includes few illustrations; the discourse on culture-bound ways of seeing and their philosophical underpinnings is primary. Although the essays were first published in Japan, they appear to have been written with a Western audience in mind, since Kurokawa takes great trouble to explain peculiarly Japanese concepts that lie at the heart of his discussion. These include "the value of the invisible," "zones of emptiness," and "mediating bodies," as well as the pivotal but nearly non-translatable terms *ma* (loosely: interval) and *en* (loosely: karmic affinity). And he stresses the role in Japanese architecture of asymmetry, absence of center, and the esthetic impact of perceiving three-dimensional space as if it had been flattened into a planar, pictorial two dimensions.

Unlike its Western counterpart, Japanese architecture values vagueness and ambiguity. The blurring of boundaries between interior and exterior, between public and private spaces, has a special resonance for Japanese architects, and transitional spaces are considered worthy of delicate handling.

Kurokawa contrasts "the hard physical reality" of traditional architecture in the West with the wood-frame construction of Japan, which lies somewhere between the substantial and the nonsubstantial. And he points out what he sees to be the differ-

ence between the Western use of a plaza as an urban organizing device and the Japanese use of street space for the same purpose—the latter being continuous, informal, and unrolled "like handscrolls before a moving viewpoint."

There have been more comprehensive and penetrating studies of some of the issues discussed here (some years ago, for example, the Cooper-Hewitt Museum in New York mounted an entire exhibition devoted to unraveling the essence of *ma*). Lucid and brief, however, Kurokawa's book is a helpful introduction to ideas now making their way into Western design.

Geoffrey Baker takes an opposite—and, undoubtedly, more Western—approach to his (heavily illustrated) discussion of form. And he is far less interesting. He allocates the first half of his book to a jumble of equally short discussions of complicated and elementary ideas: structure, geometry, symbolism, monumentality, the relationship between art and nature, the definition of vernacular. These tend to be arbitrary and vague. "Geometry," for example, touches only on the golden section and one of John Hejduk's projects from the 1960s, while "Complexity and Contradiction" ends with

a confirmation that Robert Venturi's ideas are demonstrated convincingly in his National Gallery extension—a project that is neither illustrated nor described.

The second half of the book contains analyses of two buildings and one competition entry: Alvar Aalto's Town Hall at Saynatsalo; Richard Meier's Athenaeum at New Harmony; and James Stirling's design for the extension to the National Gallery in London.

His intention is to "demonstrate that great architecture depends on an understanding of the role of architecture with reference to examples from both past and present," and "to show how the many layers of richness of architectural concepts can be revealed by diagrammatic analysis." Quoting liberally from Peter Eisenman's 1963 doctoral thesis (among other arcane sources), Baker takes us through a series of drawings, from single rectangles to complex designs, pointing out the visual "currents" and "pressures" that have made the ultimate configurations, to him, virtually inevitable. □

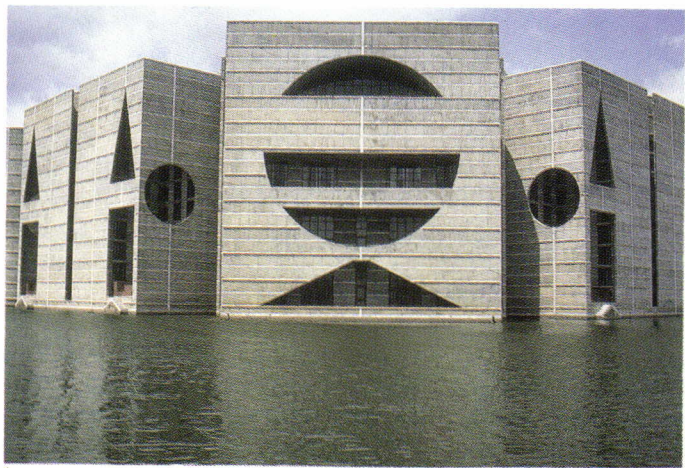
Ellen Posner is architecture critic for The Wall Street Journal.



Mathematical formulae for visual perfection are not infallible.

THE AGA KHAN'S BALANCING ACT

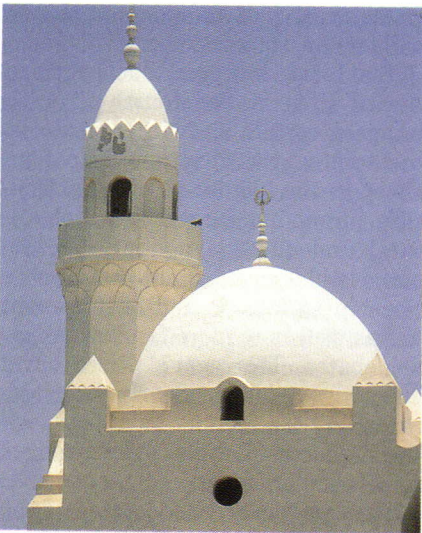
Architect and critic Michael Sorkin examines Modernism's push and tradition's pull in the latest set of Aga Khan Award winners.



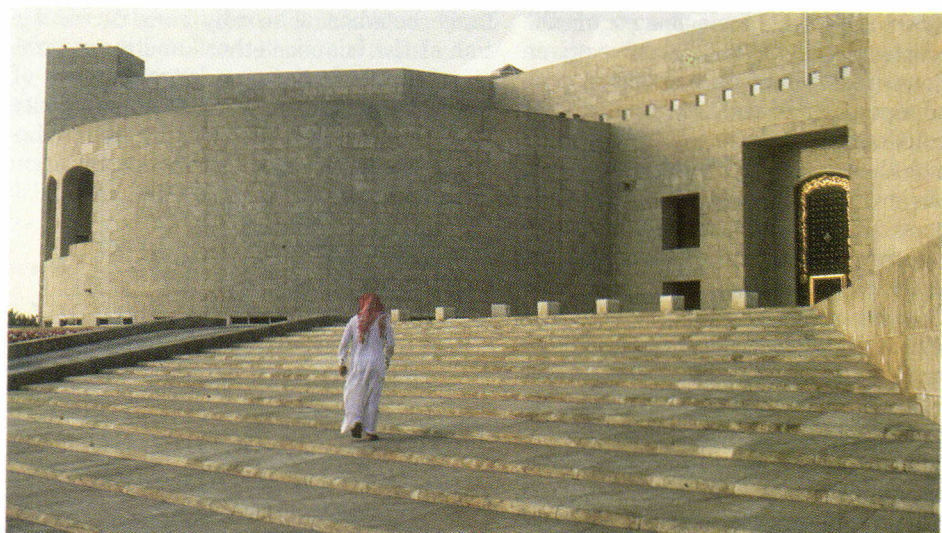
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1. National Assembly Building
Sher-e-Bangla Nagar, Dhaka, Bangladesh
COMPLETED: July 1983
CLIENT: Public Works Department, Dhaka
ARCHITECT: Louis I. Kahn, Philadelphia

2. Institut du Monde Arabe, Paris, France
COMPLETED: November 1987
CLIENT: Institut du Monde Arabe
ARCHITECTS: Jean Nouvel, Gilbert Lezénés and
Pierre Soria with Architecture Studio, Paris
ARCHITECTURAL CONSULTANT: Ziyad Ahmed
Zaidan, Jeddah

3. Corniche Mosque, Jeddah, Saudi Arabia
COMPLETED: 1986
CLIENT: Jeddah Municipality (Mohammed Saïd
Farsi, former Mayor), Jeddah
ARCHITECT: Abdel Wahed El-Wakil, London

4. Ministry of Foreign Affairs,
Riyadh, Saudi Arabia
COMPLETED: August 1984
CLIENT: Ministry of Foreign Affairs, Riyadh
ARCHITECT: Henning Larsen, Copenhagen

Boarding the Air India jumbo, I noticed the paint job. In lieu of the usual speedbirds and racing stripes, each cabin window was ornamented with a little Moghul arch, "Indianizing" the iconically Western Boeing. The kitschometer clangs. We Westerners prefer our technology smooth and "honest": not only does this decoration exceed the limits of chaste Modernist minimalism, the signifier hoaxes. The implicit structural character of that arch is, after all, completely contrary to the kinds of stresses that those porthole perforations are meant to accommodate.

That 747 is an iceberg's tip, the conflict between its two visual systems a metaphor for the larger impingements of tradition and modernity visible in the developing

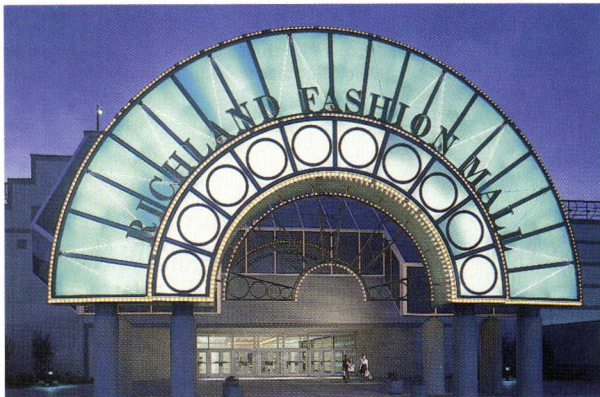
world. On my trip through the "Orient," I saw this bifurcating-grafting operation everywhere. Pedicabs in Dhaka were ornately painted with images that included a DC-10 and Lou Kahn's National Assembly Building, itself an ambiguous gel of double-culture. A nouveau-riche neighborhood in Karachi sprouted dozens of replicated White Houses and Petit Trianons. The traditionally decorated villas in Dubai were crowned with satellite dishes, preeminent interrupters of stabilized notions of time and space. Skyscrapers rose over Cairo, dwarfing mosque and pyramid alike.

Architecture—that most comprehending social signifier—lies at the symbolic nexus of this conflict: its central expressive question is how to embody both the

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South Carolina. The oldest shopping center in the state, its developers decided to expand it from 290,000 square feet to 900,000 square feet and give it a whole new high-fashion image. When finished,

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CHANGING TIMES

After over three decades with RECORD, and five years as chief editor, Mildred Schmertz decides it's time to move on.

To imagine ARCHITECTURAL RECORD without Mildred Schmertz is, well, unimaginable. Mildred's association with RECORD spans a third of the magazine's 99-year history—from 1957, when she joined the staff as an associate editor, until just last month, when she resigned as editor-in-chief in order to pursue a variety of related interests.

Over the past 33 years, the single overriding principle that has driven Mildred professionally has been her unwavering belief in architecture as a social art, and in the responsibility of architects to utilize their role as designers to better the world. Some of that attitude no doubt stems from Mildred's early years at RECORD when, as the magazine's New England correspondent, she developed a close relationship with Walter Gropius, Paul Rudolph, and other Modernists practicing along the New York-Boston axis. Gropius was an especially lasting influence, and Mildred has consistently carried forth the Bauhaus master's interest in finding solutions to low-cost housing (in both the Western and the developing worlds) and in the primacy of collaborative planning over isolated works of architecture.

At the same time, Mildred also has been steadfast in her belief in the architect as hero and in RECORD's essential purpose: to encourage the profession by showcasing the work of its most distinguished practitioners. If that underlying goal at times has come into conflict with Mildred's wish to include architectural criticism in the magazine—a dilemma that all professional journals face—she has found ways to re-introduce thoughtful critical texts into RECORD's pages without forsaking her support of the architect or losing sight of the compromises that inevitably affect architecture's end product.

It seems fitting that on Mildred's final day at 1221 Avenue of the Americas, McGraw-Hill awarded her and the magazine its corporate achievement award for our In the Public Interest program, an annual competition developed specifically to honor the kind of architect-heroes that Mildred has championed so assiduously throughout her career. Although her editorial voice on the profession will no longer be through the monthly forum of this page, Mildred's resignation will enable her to devote more time to important work as a Commissioner on the New York Landmarks Preservation Commission, to her recent appointment as lecturer in the architectural criticism program at the Parsons School, and to whatever other projects she elects to undertake. We fully expect to see Mildred in her usual haunts—attending lectures at the Architectural League, participating in symposiums that address urban-design issues, pushing the profession toward a higher level of excellence—and when we do, it will be with a renewed sense of gratitude, respect, and admiration. **PAUL M. SACHNER**



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MEET STEPHEN KLIMENT

RECORD's new editor-in-chief comes to us with distinguished credentials in architectural magazine and book publishing.



STEPHEN A. KLIMENT

Our search to find a successor to Mildred Schmertz began several months ago (at one time there were over 30 candidates for the position of editor-in-chief of RECORD). Last month I drew up a short list and, after several intensive interviews, decided that Stephen A. Kliment, FAIA, was the most qualified to take us into this new decade as well as into our 100th year of continuous publication.

Steve is no stranger to this profession. Most recently he has been editor for architecture and interior design books at John Wiley & Sons, whose titles include the illustrious *Architectural Graphic Standards*. In fact, Steve has been responsible for producing the first two in a planned family of AGS spinoff products, including the already-successful student edition.

For eight years he was editor-in-chief of *Architectural & Engineering News*, which was the first magazine in this profession to place publishing focus on the practice and technology of architecture. This emphasis dovetails with some of our own objectives, which are reflected in our new redesign.

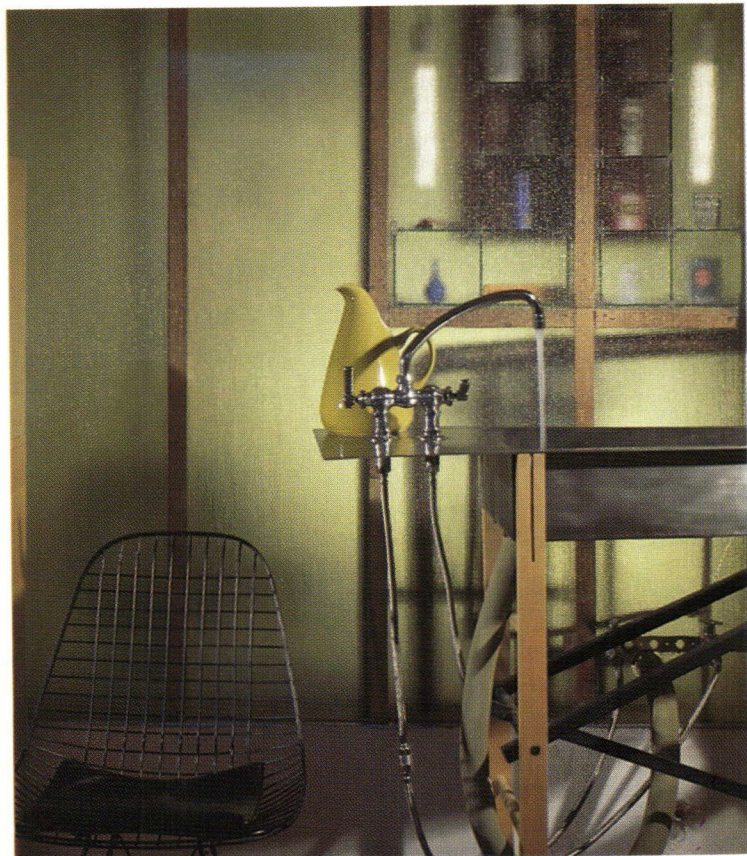
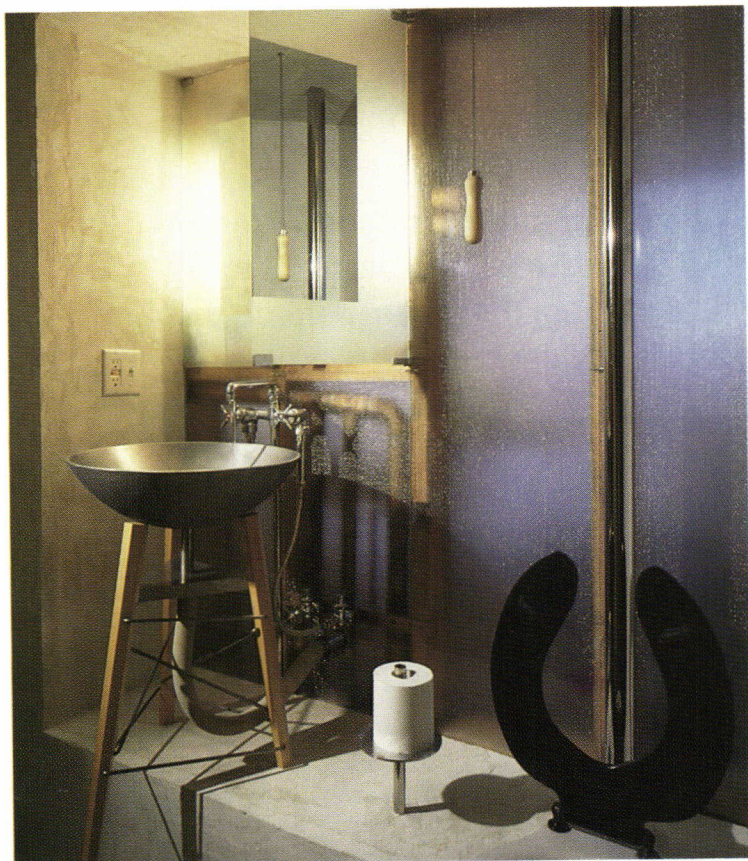
Other positions he has held during his distinguished career in publishing include executive editor of the Whitney Library of Design, an imprint of Watson-Guptill Publications; founding editor-in-chief of *Advertising & Publishing News*, published by Hagen Communications; and editorial director of book publishing for Practice Management Associates, publisher of surveys, directories, and books for design professionals.

Inducted as a Fellow of the American Institute of Architects in 1978, Steve is also the author of numerous books and articles pertaining to the practice of architecture and design. He holds a bachelor of architecture from MIT and a master of fine arts degree in architecture from Princeton.

Steve's objectives for RECORD: to help you recognize and solve the problems you face operating a successful practice; to expose you to the best in architectural design wherever it is; to help you understand new advances in systems and component technology that will affect your design work in the future. He is committed to a magazine that is clearly and concisely written, and to managing a superb editorial staff with care, insight, and understanding.

Steve officially joins us on April 9th. We are extremely proud to have him head our editorial team.

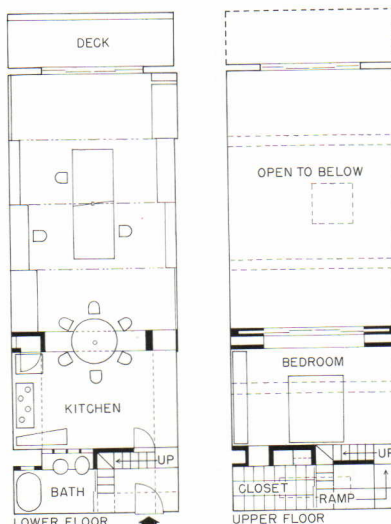
ROScoe C. SMITH III



Located back-to-back, the bathroom (above left) and kitchen (above right) are separated by textured-glass panels affixed to exposed wood studs. Tomb and Randolph's bathroom basin and kitchen sink reveal the architects' interest in transforming equipment of daily use into sensuous objects—much in the spirit of the client's collection of cabinetry designed by Phillip Agee (right).



multipurpose furnishings, but also to accommodate the personal belongings of a self-described "obsessive collector" of visual icons. Toward that end, the architects designed a 13-foot-long glass-topped desk/conference table with built-in light boxes and white-washed mahogany cabinets whose aluminum counters provide ample display space for treasured objects and the graphic designer's own work. But perhaps the most unusual request Bonauro made of the architects was to devise a showcase for his most precious possessions. Drawing on Bonauro's religious upbringing, they fashioned a translucent reliquary with sacred totems sandwiched between glass slabs. This beguiling shrine is both a tribute to



Tomb and Randolph's client and an apt summary of their own functionally mandated, poetically inspired work. **KAREN STEIN**

ARCHITECT: *Interim Office of Architecture—John Randolph and Bruce Tomb, principals-in-charge; Maeryta Parkhurst, project architect; Vanessa Belli and Ben King, assistants*
CONSULTANTS: *Pacassa Studios—Paco Prieto; South Park Fabricators—Jeff Sand, Horst Gruner, Wolfgang Thier, Richard Serp, Edward O'Brien, Glen Sheppard, and Thomas Jameson*
GENERAL CONTRACTOR: *Makerstudio—Randy Castellon, Andy Ruiter, and Ben Smith; Neil Marshall (electrician)*

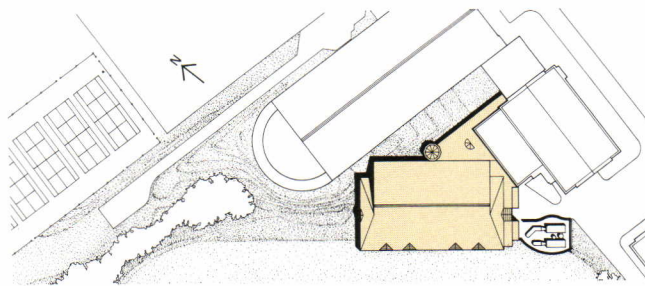


AQUATIC ART

With brilliantly composed natural light, Perry Dean Rogers & Partners bring the special pleasures of the unexpected to the matter-of-fact simplicity of a small-college natatorium.



©RICHARD MANDELKORN PHOTOS



Hamilton College, a small liberal-arts school tucked into the hills of central New York State, is justly proud of a campus that reflects a history reaching back to 1812 and the college's founding under the will of Alexander Hamilton. Several of the earliest buildings not only survive but are still in use, although the campus is now dominated by buildings of the 19th and early 20th centuries, eclectic but unified by the use of a distinctive native stone. Later departures from the theme are few; new projects are approached with care for the ensemble they join.

The newest entrant is a natatorium which replaces an outgrown 50-year-old pool and a pool house that had crumbled to the point of hazard. A literal replacement, the new pool was built on the site of the old to keep Hamilton's athletic facilities concentrated in a single complex, which also includes a gymnasium and hockey rink, and allow the continued use of the gym's locker rooms and mechanical systems. By holding the new pool captive to the existing gym, the recycled site constrained still more an already bare-bones program, leaving the enclosure

without so much as a separate entrance of its own. Yet designer Charles Rogers has given the skeletal structure a lively distinction, and even conjured special spaces from the obligatory connectors with the adjoining gym.

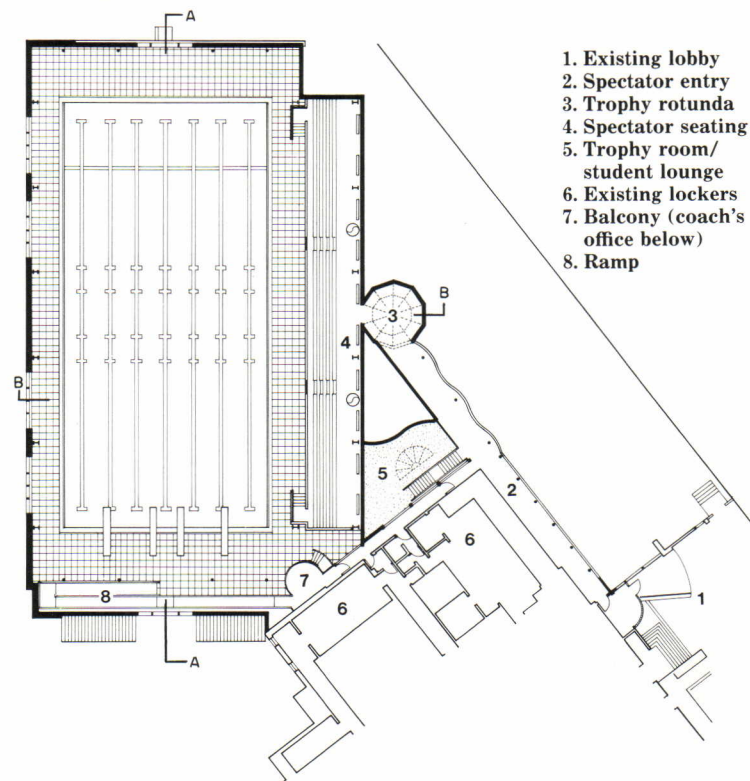
The building's four-square shape and broad hipped roof would be equally at home in the country setting suggested by the workaday cladding of vertically ribbed sage-green metal that sheathes the end walls. The hint of rural (though prosperous) origins is maintained in the prominent use of the same stone that faces earlier college buildings, which more importantly assures the new structure visual continuity with the nearby central campus. No working farm building, however, ever bridged inside and out with the natatorium's skylit dormers and brilliant window walls—Rogers's signature compositions of interplaying grids of clear glass and glass block, in this case joined by round "portholes" in a gesture to the aquatic.

Like the original, the new pool house crosses the angle formed by the hockey rink and gymnasium, where one corner





Though largely limited to circulation, subsidiary spaces are fitting introductions to the grand space of the pool enclosure. A leftover angle between branching corridors becomes a comfortable team room (near left); the spectators' entry from the gym (far left) leads past shimmering waves of glass block; swimmers move from lockers to pool via a glass-block-walled passage to a balcony over the swim coach's poolside office (bottom left).



1. Existing lobby
2. Spectator entry
3. Trophy rotunda
4. Spectator seating
5. Trophy room/student lounge
6. Existing lockers
7. Balcony (coach's office below)
8. Ramp



*William M. Bristol Jr. Natatorium
Hamilton College
Clinton, New York*

OWNER: Hamilton College

ARCHITECT: Perry Dean Rogers & Partners—Charles F. Rogers II, principal-in-charge; Thomas J. McCarty, senior associate; David Storeygard, Gabriel Yaari, Anna Wu, project team

ENGINEERS: Bolton & DiMartino (structural); BR+A Consulting Engineers, Inc. (mechanical/electrical); R. W. Sullivan, Inc. (plumbing/fire protection); Acentech Incorporated (acoustics)

CONSULTANTS: Jerry Kugler Associates (lighting); Mark Randall (pool)

GENERAL CONTRACTOR: Murnane Associates



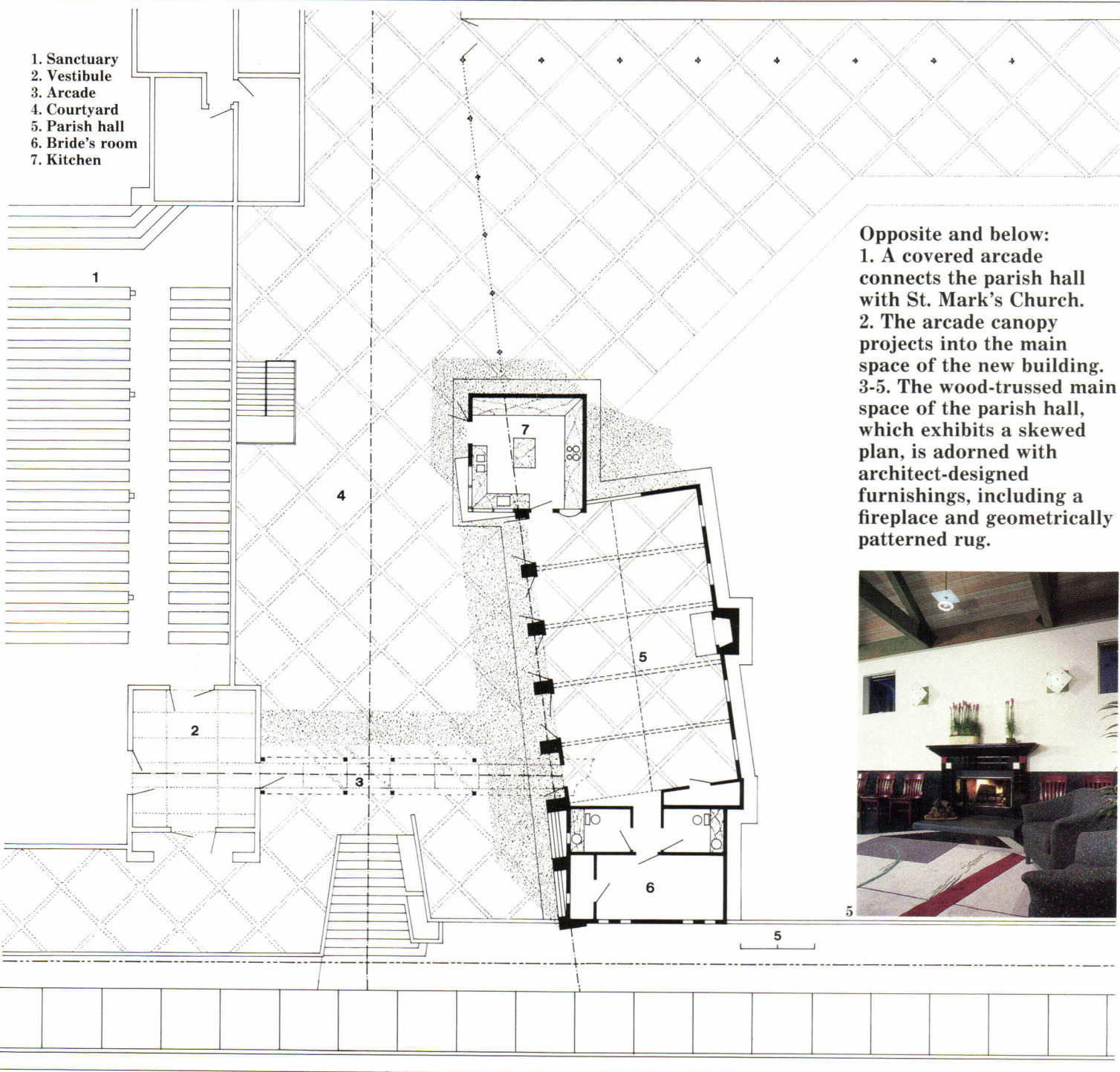


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Opposite and below:
 1. A covered arcade connects the parish hall with St. Mark's Church.
 2. The arcade canopy projects into the main space of the new building.
 3-5. The wood-trussed main space of the parish hall, which exhibits a skewed plan, is adorned with architect-designed furnishings, including a fireplace and geometrically patterned rug.



A closer look at the parish hall reveals some intriguing complexities. The diminutive building is replete with conceptual gestures—"a melting pot of incongruities," in Baker's words, beginning with the structure's slightly offset alignment with the church. What's more, when the canopy over the walkway penetrates the parish hall, it transforms itself from metal into wood, with one end truncated alongside the narrow end of a wedge-shaped crosspiece, located beneath an arched window.

Another wall relief at the opposite end of the parish hall echoes the form of the adjacent kitchen structure. Here the window is round. The diamond pattern of the garage's rooftop paving is picked up in the flooring of the parish hall, and there is a large rug designed by the architect in the manner of Klee, or perhaps Miró.

Back outside, the orange wall continues past the building and extends down the edge of the garage, terminating in a skewed medallion. Lower walls pierced with square openings join it to form a courtyard. These lower walls, like those of the kitchen

structure, aligned with the church. At the center of the street-side composition is an enlarged metal downspout with a flared top. "The building doesn't meet the ground," explains Baker, "and this element kind of pins it down." **DONALD J. CANTY**

Hodgkin Hall

St. Mark's Church

Berkeley, California

OWNER: *St. Mark's Church*

ARCHITECT: *David Baker Architects—David Baker, Peter Mackenzie, Rita Burgess, Tomo Fushimi, design team*

ENGINEER: *A. J. Miller (structural)*

GENERAL CONTRACTOR: *Creative Spaces*



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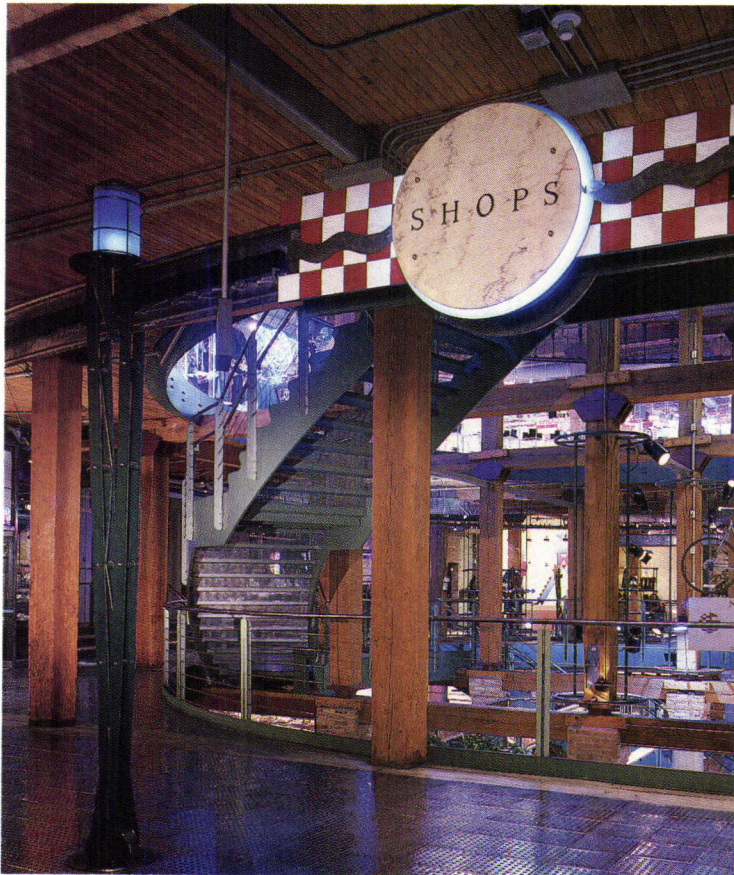
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RESHUFFLING THE DECK

With the retail industry in turmoil, four developers gamble their future on reusing the past.

©WAYNE CABLE/CABLE STUDIOS



Old meets new at Chicago's North Pier, where steel posts and wire railings mingle with wood and brick.

Adaptive use is hardly a new idea in the retail business. But with the department-store end of the industry caught up in the bankruptcy proceedings of the Campeau empire and changes being made in general operating philosophy, experts are rethinking retail. Businessmen are rejecting some of their old formulas and trying to figure out what to do with outdated, outmoded facilities, many of which are dinosaurs from a less troubled past. For architects, this turmoil can mean opportunities to blaze new paths.

Each of the four projects profiled in this study somehow builds on the past. Over the years we've grown accustomed to seeing obsolete industrial facilities (such as the Tucker automobile factory near Chicago), civic structures (such as Union Station in St. Louis), even collections of historic structures (such as Faneuil Hall/Quincy Market in Boston) converted to new uses.

So it comes as no surprise to find Chicago's North Pier, once a gigantic warehouse and exposition center, resurrected as a mixed-use retail and commercial complex (pages 102-105). What makes this project worthy of special attention is the way the architects handled the great scale of the building, making it work inside as a lively and beautifully detailed environment and outside as a catalyst in the revival of a once-derelict part of town. North Pier is also important because it makes connections, tying the present to a part of Chicago's maritime history and linking an underutilized part of the waterfront to the rest of the city. It is gratifying to note that the architects achieved all this without resorting to any cloying use of historicizing elements or materials.

The other three projects in this article represent a different kind of conversion—from one type of retail to another. The industry is undergoing some major changes these days, with celebrated department

stores such as Gimbels and B. Altman going out of business and catalog operations grabbing a rapidly growing portion of total sales. Most industry analysts predict that more department stores will close in the next few years; either new uses will be found for these buildings or they will be torn down. According to statistics compiled by F. W. Dodge, 272 million square feet of retail were built in 1985, while only 235 million were constructed in 1989. If current projections are correct, 200 million square feet will be built in 1990, 190 million in 1991, and 180 million in 1992.

Perhaps because retail is a troubled industry, developers are more willing today to experiment with new ideas. During the boom years of the previous decade, shopping malls were hermetically sealed environments built by rote. They all looked very much the same. The malls profiled here, however, reach out to their surround-

ings. Instead of creating artificial oases indoors, they relate directly to the outdoors.

In New York, for example, RTKL Associates faced a design problem that will most probably turn up more frequently in the future: converting an old department store into a mixed-use mall (pages 108-111). The store in question was the once-mighty Gimbels, and the site was the formerly fashionable Greeley Square in midtown Manhattan. By carving out an 11-story-tall atrium along the Sixth Avenue end of the building and orienting the mall to the view of the city, RTKL took advantage of its surroundings, rather than ignoring them.

Both of the California projects in this study use outdoor spaces as key features in their designs. In renovating Fashion Island, a shopping mall in suburban Orange County, Jon Jerde and the SWA Group took a set of buildings separated by gardens and transformed it into the retail equivalent of an Italian hill town (pages 98-101).

The outdoor spaces are now less pristine and more intense, less subdued and more urban. The architects also convinced the developer to close two streets leading to nearby office towers and turn them into pedestrian pathways. Given the chance to walk somewhere at lunch, office workers have flocked to the mall, proving that good connections can open up new markets.

At Napa Town Center, Field Paoli Architects wove unrelated retail buildings together by adding new stores, new streets, and a series of plazas (pages 106-107). Instead of enclosing the entire project to give it a single identity (as might have been done a few years ago), the architects used outdoor spaces as the main organizing elements. The result is a true town center, not a shopping mall. Just as importantly, the project has a strong sense of place. It could only be Northern California, not Anywhere, U. S. A. **CLIFFORD A. PEARSON**

of high-rise residential structures such as the 61-story apartment tower going up at the eastern end of North Pier.

Originally used as an exhibition and distribution facility, North Pier is a series of connected buildings, each 120 by 90 feet. When Chicago Dock and Canal brought in Broadacre Development to convert the pier into a mall, the structure stretched 900 feet long. After being shortened one bay on the lake side for the apartment tower and another two bays on the city side for access, the building now measures 630 feet from end to end.

A heavy-timber structure with posts set at 12-foot intervals, North Pier was built to last. After sandblasting white paint from the red-brick exterior and all of the interior wood elements, the architects had a building whose structure was expressed in a simple but powerful way. Salvaging timbers from the razed bays, the architects built three-story galleries on the Ogden Slip facade. A glass and metal curtain-wall, however, clearly identifies the galleries as new construction.

To break the great length of the building into more manageable parts, the architects cut an oval atrium out of the center of the structure and two slivers from each of the two wings. By forcing shoppers to move around these curved spaces, the plan reads less as a long march and more as a pleasant stroll. "We wanted to reduce the sense of distance from one end to another," explains Jeffrey Penn, senior design architect with The Austin Company.

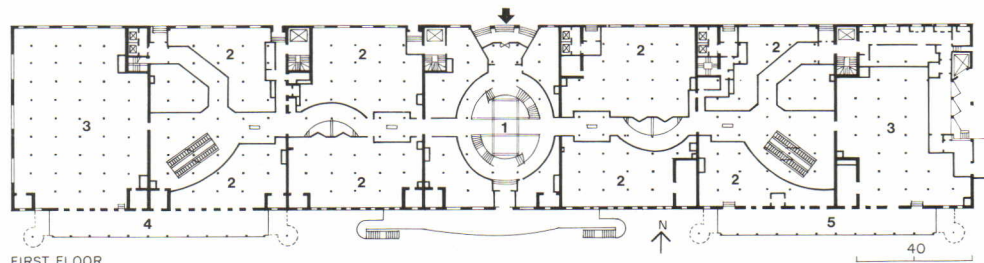
On both the exterior and the interior, new architecture is executed in metal—from the bowed canopies over the three entrances on the north facade to the steel storefronts and oval staircase on the inside. "The idea was to add only metal, to set it apart from all the wood that was there," says Laurence Booth, of Booth/Hansen, the design architects for the project. Instead of being slick and high-tech, the metal elements have a crafted character that fits in with the original industrial architecture. **C. A. P.**

*North Pier
Chicago, Illinois*

OWNER: Broadacre Development
ARCHITECT: Booth/Hansen & Associates—Laurence Booth, design principal; Paul Hansen, business principal; Paul Duffy, project manager
ASSOCIATE ARCHITECT: The Austin Company—J. Bradley Shafer, William Lauck, principals-in-charge; Jeffrey Penn, project architect; Carl T. Groesbeck, project manager; Pat Ventura, technical coordinator
ENGINEERS: The Austin Company
CONSULTANTS: Peterhansrea (interiors); Illuminart (lighting)
GENERAL CONTRACTOR: The Austin Company



The main atrium (left and opposite) is a three-story space that serves as a focal point for retail activities. In converting the 85-year-old pier into a retail and office



- FIRST FLOOR
- 1. Main atrium
 - 2. Stores
 - 3. Restaurant
 - 4. West Galleria
 - 5. East Galleria



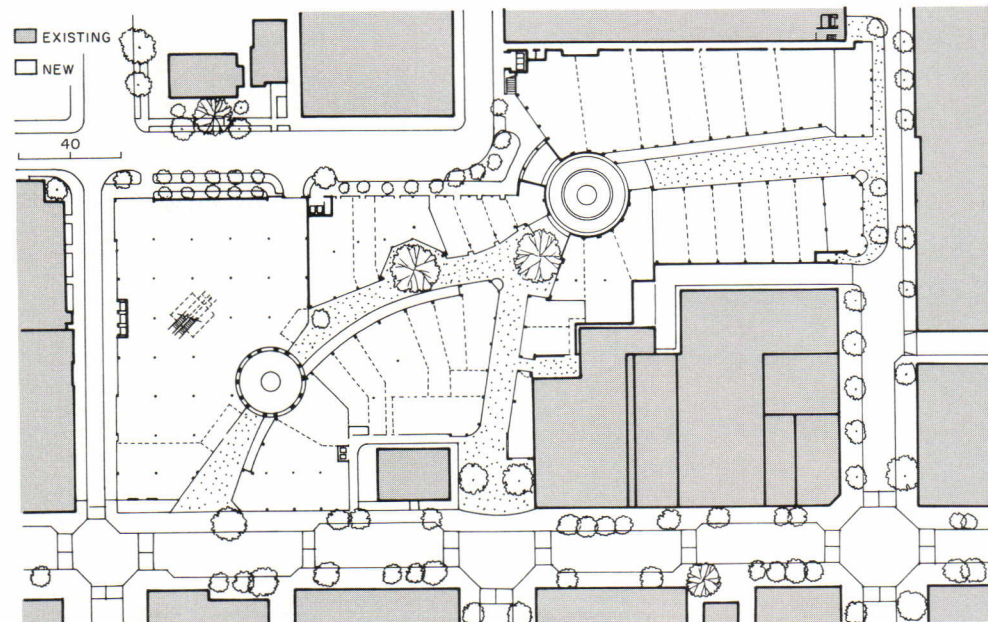
complex, the architects executed new elements such as stairs, railings, storefronts, and light posts in metal to contrast with existing wood timbers. Because the pier is essentially seven connected buildings measuring 120 by 90 feet, the size of floor plates available to retailers was limited to 10,800 square feet—too small for department stores, but fine for restaurants and specialty stores.





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As shoppers move from one end of the project to the other, they encounter two possible destinations along the way: a fountain surrounded by a two-story open drum (right) and a covered circular pavilion (opposite). To develop the proper sense of enclosure along the path, Field designed one-story buildings that rise 26 feet (above). A covered arcade and a system of awnings and wood lattices provide shade during the hot summer months. By retaining two large trees, the architect made the project look as if it has been there for years.



GOOD CONNECTIONS

Field Paoli reinforced Napa's small-town ambience with a shopping center that weaves new and old.

Napa Town Center
Napa, California
Field Paoli Architects

Before John Field showed Napa a better way, the Northern California town's redevelopment agency planned on building a typical internalized mall downtown. But by the time work got started on the project, Field had demonstrated that focusing the 37 new shops and one new department store around an outdoor pedestrian path would create a retail center more in keeping with the character of the small town.

The curving path not only provides a series of landscaped experiences, it also establishes an urban fabric that connects two existing department stores and a row of shops to the project. Moreover, by bending the path in the right places, Field was able to frame views of the nearby mountains and retain two large trees on the site. "The trees make the project look like it's been there for years," says Field.

Picking up the scale of 19th-century buildings along First Street, Field instilled a small-town feeling to the mall without appropriating the exact elements, forms, or style of the old structures. Instead of treating the new buildings as individual objects, Field designed them as background architecture to "define a sequence of outdoor experiences." **C. A. P.**

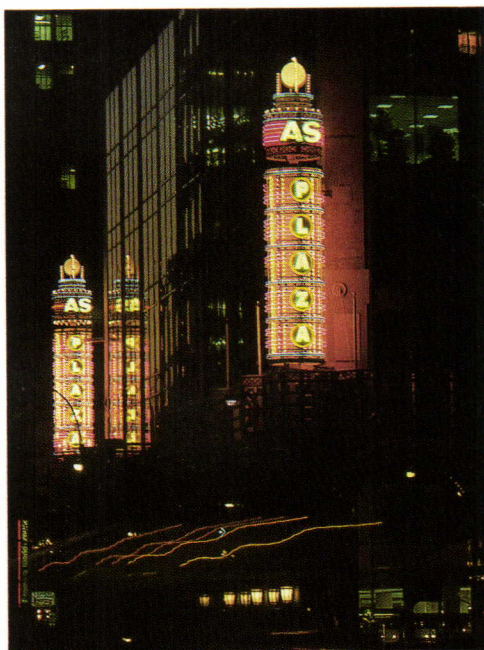
OWNER: Reininga Corp.
ARCHITECT: HGHB and Field Paoli Architects—John Field, partner-in-charge; Rob Anderson, Tucker Bishop, project managers; Michael Raphael, Eric Maltman, Sudhish Mohindroo, designers; Chris Haggland, Irene Mitsuhashi, Lynn Wong, Fred Quesada, Gary Schilling, Raphael Cedillos, project team
ASSOCIATE ARCHITECT: Field/Gruzen Associates
ENGINEERS: Kraft Structural Engineers (structural); Montgomery & Roberts (mechanical); Hansen & Slaughter (electrical); Michael Majors Engineering (civil)
GENERAL CONTRACTOR: Rudolph and Stetten



A MALL WITH A BIG-CITY VIEW

From the old Gimbels department store, RTKL Associates created a mall with street smarts.

A&S Plaza
New York City
RTKL Associates, Architects



When Gimbels closed in 1986, a piece of retailing history and a venerable New York City landmark died with it. Along with neighboring Macy's and Saks 34th Street, Gimbels helped make the three blocks just west of Greeley and Herald squares into the shopping mecca for the entire New York metropolitan region. But times changed, and suburban malls drained life from downtown department stores. First Saks sold out to E. J. Korvettes, then Korvettes was converted into a poorly conceived vertical mall called Herald Center.

Reworking the Gimbels building into a new anchor department store—Brooklyn-based A & S—and a mix of retail and showroom uses, RTKL Associates avoided the mistakes of most other downtown malls. While the giant atrium that the architects carved in the belly of this kind of conversion, they also pushed it up against the site's major street, Sixth Avenue. By opening up the bays between the front facade's



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brick piers with windows, RTKL made sure the atrium and the stores around it addressed Sixth Avenue and the city beyond.

"We thought of the building as part of a midtown redevelopment scheme," not just as an individual structure, says Leonard Kagan, the RTKL principal-in-charge of the project. While clearly taking liberties with the Daniel Burnham structure, Kagan felt it was important to make the Sixth Avenue facade as transparent as possible. "From the street, the building had to read as retail and engage pedestrians," says Kagan. The new fenestration continues for three bays around the building's corners at West 32nd and 33rd streets.

To announce the building further, RTKL designed a giant marquee that runs for three bays on each end of the Sixth Avenue facade and three bays back on the two side streets. Illuminated by multicolored dancing neon and punctuated by three-story-tall light posts at the two main entrances on 32nd and 33rd streets, the marquee adds a flourish of theatricality to the once-somber exterior. A new stone cornice at the eighth floor separates the retail portion of the building from the four floors of offices and apparel showrooms above.

Inside, the atrium rises from a subway station two floors below the street to a skylight one story above the building's original cornice. To reduce the atrium's perceived height, RTKL broke the space down into three basic sections, using arches, protruding bays, light fixtures, and railings as dividing elements. Escalators on the first four floors run east-west, preserving views to Sixth Avenue, but those on the next three floors run north-south, maintaining views from shops on one side of the atrium to those on the other. While the architects admit that the upper escalators block views to the city, they also understand the need to accommodate legitimate retailing concerns.

C. A. P.

*A & S Plaza
New York City*

OWNER: Melvin Simon & Associates, Silverstein Properties, and The Zeckendorf Company

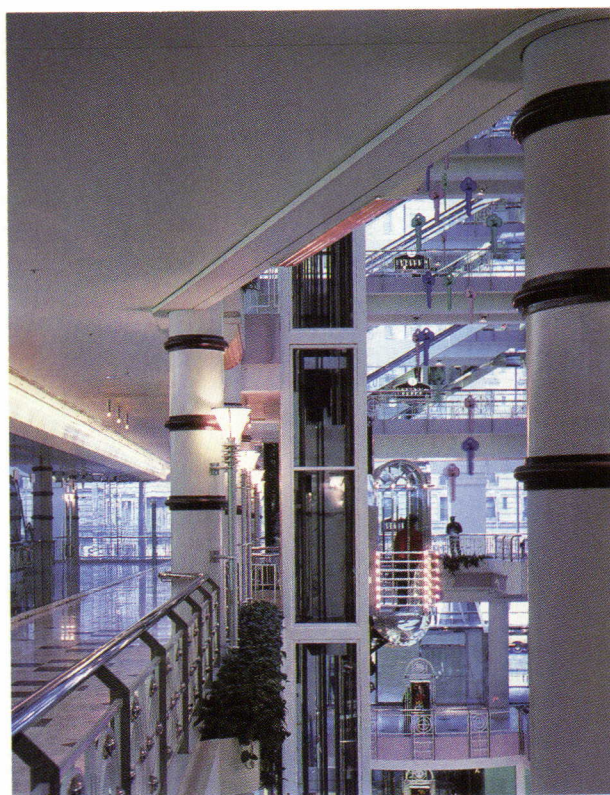
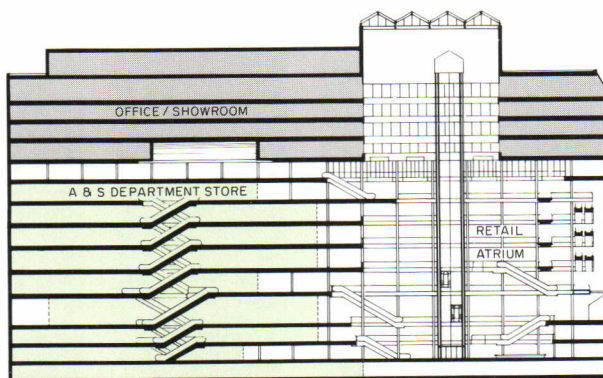
DESIGN ARCHITECT: RTKL Associates—Leonard Kagan, principal-in-charge; Charles Greenland, project manager; Dave Kimball, project architect; Ken Maynard, Jo Schneider, Steve Gilliss, Lee Mason, Kiat Foo, design team; Phil Engelke, Steve O'Hearn, graphic designers

ARCHITECT OF RECORD: Emery Roth & Sons

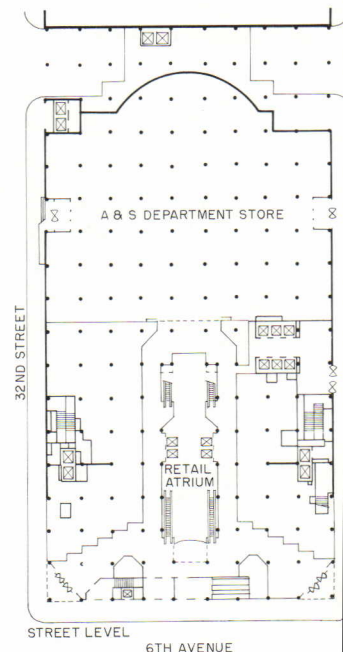
ENGINEERS: Office of Irwin G. Cantor (structural); Syska & Hennessy (mechanical/electrical)

CONSULTANTS: Theo Kondos Associates (lighting)

GENERAL CONTRACTOR: Tishman Construction



The Sixth Avenue facade of A & S Plaza (previous page) was opened up with new windows to the eighth floor, at which point retail ends and showrooms begin. A neon marquee runs along six of the nine bays of this elevation. By pushing the mall's atrium up to Sixth Avenue, the architects were able to locate the anchor department store, A & S, in the rear (opposite), yet still give it city exposure. The nine-story atrium (top and bottom left) is broken down into three distinct sections: a "base" including two levels below grade and two above, a "shaft" of four floors, and a "capital" marked by a 1,200-seat food court. To create the atrium, RTKL poured new concrete floors and removed some of the old columns. The old Gimbels structure, though, was essentially kept intact in the A & S store.





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WHEN NO GLITCHES ARE ALLOWED

High-security computers call for flexibility in the design of curtainwalls, hvac, electrical servicing, and structural systems.

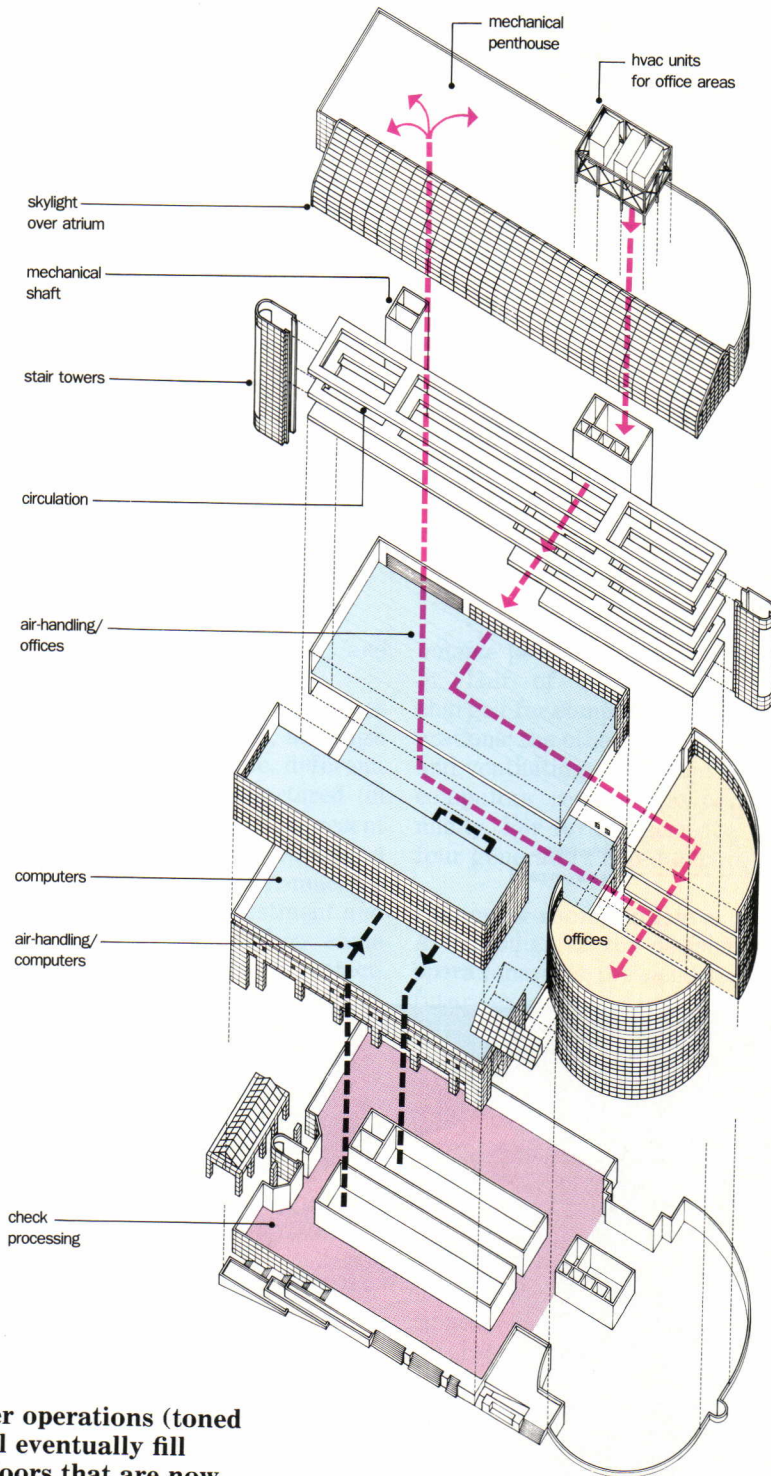
If there is one area that has been affected by leapfrogging technology in computers and transmission media, it is banking. The customer sees these changes through his ability to withdraw funds through automatic teller machines just about anywhere in North America. But banks can now react instantly to distant developments and perform mind-boggling numbers of transactions in milliseconds. With this newfound freedom and flexibility has come the burden of guarding against competitive intrusion and, more importantly, preventing loss of information—data that much of the time exists only as ephemeral electronic bytes—should a breakdown occur. Data security is especially crucial at computer-operations centers where most transactions are processed.

The Scarborough Operations Centre, designed by the NORR Partnership, of Toronto, is a particularly ambitious example of this genre, and it represents only one institution's priorities. Nevertheless, buildings for the care and feeding of computers are likely to become ever more important, and there is anything but a consensus on the way these facilities should be built.

System redundancy for security

David Jansen, a design partner with NORR, and bank officials toured facilities in several countries while the Scarborough center was in design. "In the U.S. the trend is to build many small, decentralized centers that are highly redundant," he explains. "In England, these centers are built on a naval model; a central facility controls a group of about five smaller centers. In an emergency three of these five can take the full load of the network. In Germany, they have built large centralized centers, but entirely underground, like bunkers."

The Scarborough center, while certainly handsome and architecturally articulate, doesn't call much attention to itself within its amorphous auto-oriented landscape on the outskirts of Toronto. Nor is it conspicuously a "secure" structure, though the center performs much of the data processing for the nationwide operations of the Toronto Dominion Bank. Yet to accommodate the clients' demanding program, the architects had to reconsider conventional solutions to curtainwalls, heating and ven-



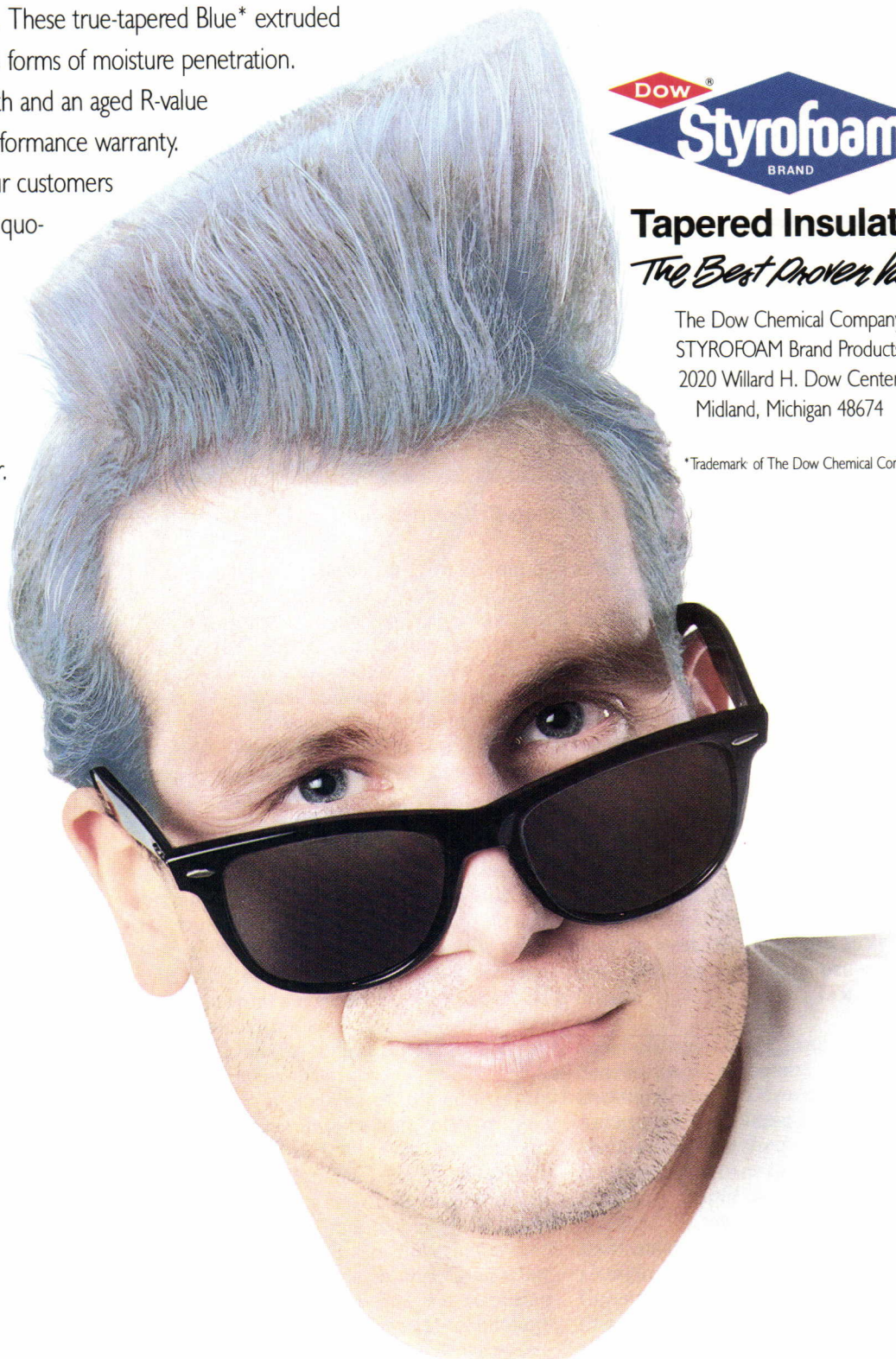
Computer operations (toned blue) will eventually fill middle floors that are now partly devoted to offices. At that time support staff will occupy orange-toned areas.

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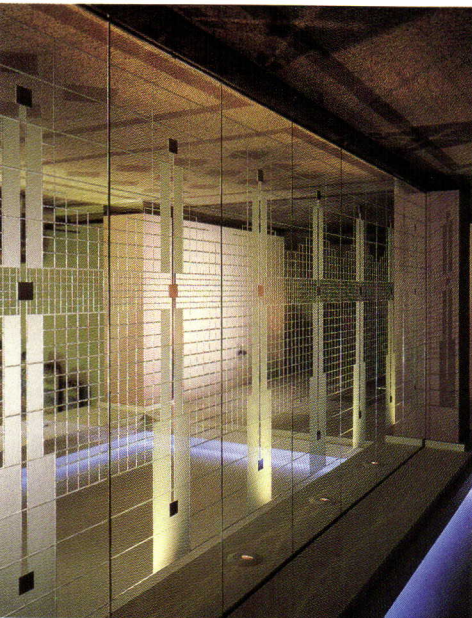
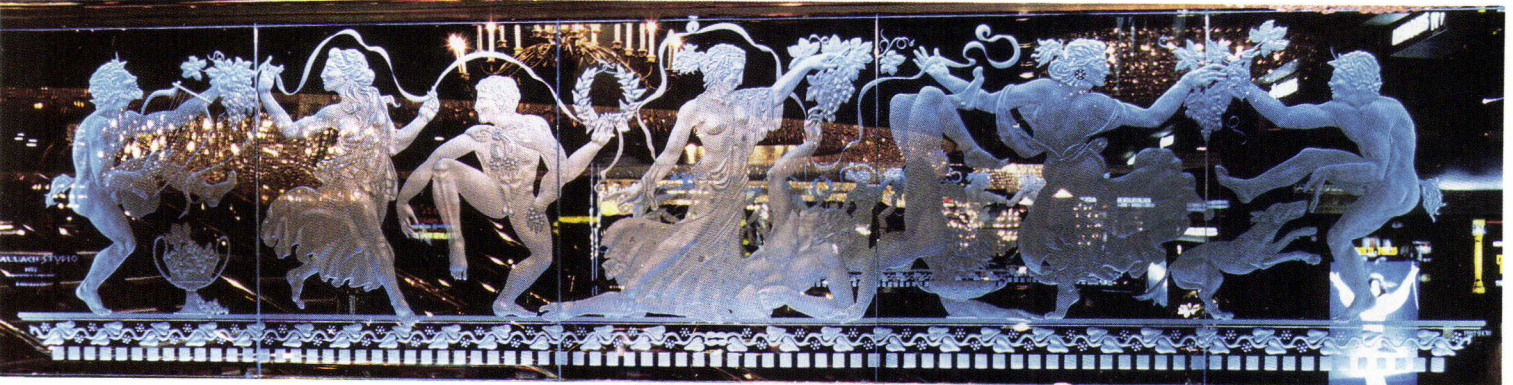
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DECORATIVE GLASS

Waterwhite glass and a deep-V carving technique are used to create dramatic graphics and signage.

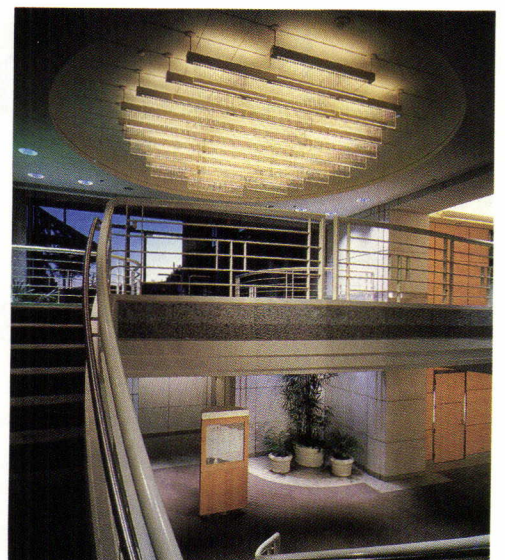


Jed and Christine Wallach execute architectural commissions in glass, using a unique "deep V" high-pressure sandblasting technique they developed. Glass is carved like stone, creating a dramatic, light-refracting three-dimensional effect when read from the smooth front surface. The etching is done (very carefully) in reverse on the back of the panel. When effected on German-made waterwhite glass with no light-distorting impurities, the graphics can be edge-lit to glow almost like a laser hologram image painted in light.

The Bacchanal Mural shown above, a large-scale design on 3/4-in. plate glass, is a tour de force of Wallach etching techniques. 1. A large (9- by 20-ft) lobby wall has frosted, metal-inlaid, and V-cut laminated glass panels. 2, 3. Deep-carved signage is readable from a considerable distance, catching light from directed or ambient sources. 4. Chandelier incorporates 26 waterwhite panels with deep-carved lines illuminated by neon. The Wallach Glass Studio, Inc., Santa Rosa, Calif.

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More products on page 145



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AUTOCAD 10's 386 OR OS/2: WHICH TO CHOOSE?

Here's some practical advice to help you select a version which will prove the most satisfactory with your present computer setup.

These two new versions of AutoCAD 10 easily sidestep the memory limitations of MS-DOS and PC-DOS. They are faster, easier to install, and easier to use with networks than the plain-DOS version of this popular 3-D package, introduced late in 1988 [RECORD, March 1989, page 141].

Because many of the features of these two new versions are similar to the straight-DOS version, and to each other, we are reviewing them together. In general, you want AutoCAD 10/386 in installations set up for single-user seats. The OS/2 version, while slower, offers some advantages for sharing files among many users, and for exchanging AutoCAD-generated data with other software that supports OS/2 dynamic data exchange (few other programs do, at this writing). The OS/2 version's on-screen appearance has some resemblance to that of the Macintosh.

Equipment required: The OS/2 version will run on your old 80286-equipped computers with at least 4 MB of random-access memory (6 MB strongly recommended). With the current versions of OS/2 (1.1 or 1.2, standard or extended) the OS/2 version of AutoCAD will run no faster on an 80386 than it will on an 80286 or 80386SX of the same "clock" speed (16 MHz, 20 MHz, or whatever).

The 386 version requires a more advanced computer than the OS/2 version. It must have an 80386SX, 80386, or 80486 chip. The 386 version needs at least 2 MB of RAM, but 4 MB to 6 MB would be better. We looked at both versions on an IBM PS/2 Model 80 with 9 MB of RAM. We also looked at the OS/2 version on an 80286-equipped IBM clone with 4.64 MB, using OS/2 1.1 Extended Edition.

Both versions require a math co-processor chip—the 80287 or 80387, depending on the system. AutoCAD will not access the Weitek Abacus 3167, 4167, or 1167. It will, however, access other substitutes for the 80387

that have exactly the same pin configuration. The co-processor is built into the 80486; no additional chip is needed to run AutoCAD on it.

Vendor: Autodesk, Inc., 2320 Marinship Way, Sausalito, CA 94965 (415/332-2344). AutoCAD/386 is \$3,300 (\$300 to upgrade for owners of the earlier, pure DOS, release of AutoCAD 10). AutoCAD OS/2 is \$3,000 (\$250 for the upgrade).

SUMMARY

Manuals: Standard AutoCAD. Both versions come with a hardbound reference manual, a tutorial manual not specific to architects, AutoLISP programmer's reference, and installation guide. The OS/2 version also includes a programmer's reference for AutoCAD's new C-language interface for add-on programs. Such programs can run faster and be more flexible than programs written in the original AutoCAD language, AutoLISP.

Registration brings a plastic 11- by 11-inch digitizer template, and details of the AutoCAD to IGES interface.

The installation manual for OS/2 covers

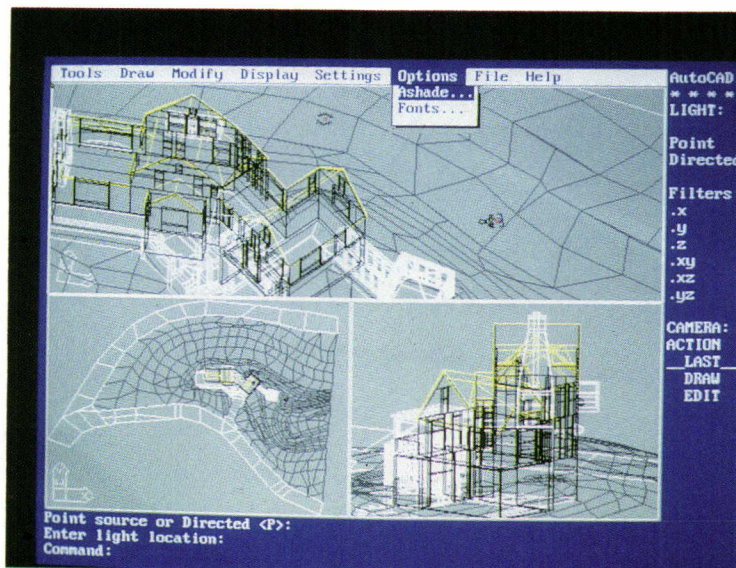
conventions for OS/2 1.1 with Presentation Manager. Users of other versions of OS/2 will find that the on-screen interface looks slightly different from the manual description.

Ease-of-use: Installation is a breeze because there is no LISP heap or LISP stack to worry about. There's also no need for the distinction between AutoLISP and Extended AutoLISP. Such fine-tuning is unnecessary, now that AutoCAD has been freed from the 640K limit imposed by MS-DOS and PC-DOS. Users with many equipment add-ons that require ADIs (AutoCAD Device Interface software links) may, as in previous versions, occasionally find the ADIs in conflict. They usually can be adjusted.

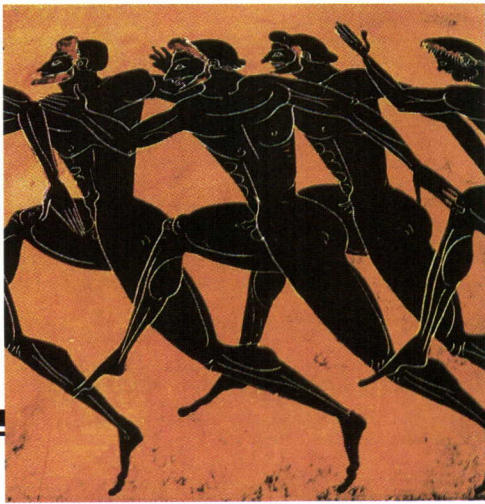
Use in an architectural office usually requires purchase of an add-on program from one of several third-party vendors, or development of your own AutoLISP routines to handle such matters as double lines to represent walls.

Error-trapping: Good for AutoCAD itself. In general, AutoCAD prompts a confirmation if you plan an action that can potentially cause the loss of data. AutoCAD does not automatically create backup files when exiting from drawing sessions. It does, however, back up files when translating from one format to another, and when modifying the configuration. Add-on programs, which usually are meant to be melded into the AutoCAD interface, vary in quality and sophistication.

Two or more OS/2 users may be tempted to work on the same file at the same time, with the file supplied by a central network server. Don't. The file will be modified separately by each user. As each user saves the file at the end of the drawing session, each will overwrite the previously saved work. Only the work in the last file will be saved permanently. Autodesk says newer releases of the OS/2 version will lock the file being worked on. For



A modified version of ASHADE.LSP, but not AutoShade itself, is included with both versions. You substitute the new copy of ASHADE.LSP for the old to create filmrolls inside AutoCAD. Here, a camera and single light source are added to the upper window.



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two people to work on a file at the same time, create two separate copies of it.

The 386 version comes with AutoCAD Device Interfaces that use "protected-mode" memory above the normal DOS limit. But ADIs from third-party vendors, at this point, generally use normal ("real-mode") memory—the memory within the normal DOS 640K. Thus, if you are using a large network program and a fancy large-screen graphics monitor (with its own ADI), you might still have a tight fit to get inside RAM below the 640K limit.

When the 386 version runs out of RAM, it begins paging files to disk rather than freezing the system. If this happens frequently, add more RAM.

Unless disk space is really tight, it is usually wise to send large plots to disk for spooling to the plotter or (especially) to a Postscript device. Otherwise the device may get tired of waiting for AutoCAD; that is, it may take "time out" and stop handling the drawing.

OS/2 (and thus AutoCAD for OS/2) has poor printer support at this time.

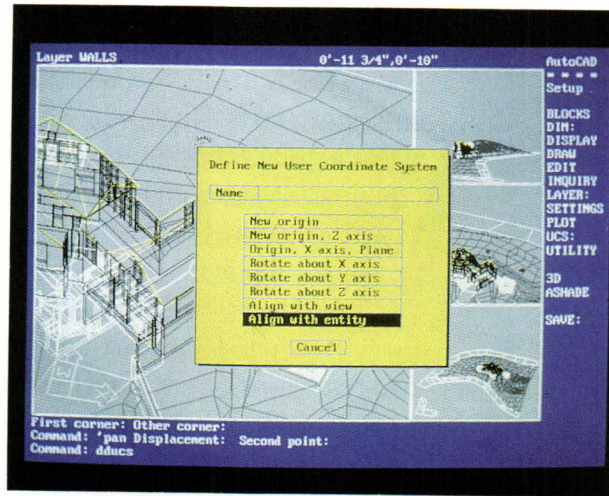
REVIEW

If you are an existing AutoCAD user, there is no question you will want to take a long look at these two upgrade paths. Should you upgrade? And which path should you take? This review will help you decide.

With the AutoCAD 386 version you can:

- Run programs faster. The 386 version is roughly twice as fast as the straight-DOS version of AutoCAD 10, in such matters as hiding background lines and handling screen regenerations. It is comparable in speed to AutoCAD 9, a much smaller, mainly 2-D package.

- Move files easily on networks. AutoCAD 386 uses the now-standard Phar Lap DOS extender to manage memory. When you leave AutoCAD, you return to normal DOS operation. But while inside AutoCAD, most standard DOS memory (well over 300K of the 640K total) is left free for



Up to 16 viewports can be created and named with either version. The 386 windows are preset in specific configurations. Going from the three-view windows (page 129) to this configuration takes several minutes of machine time the first time you do it. Also note the awkward placement of the File pulldown menu, on the right. In the OS/2 version it is at the far left, as it would be on a Macintosh.

other purposes. This is more than enough room for standard network software.

- Build truly huge files and leave them all in memory. Most computers built around the Intel 80386 or Intel 80486 can handle 16 MB, which allows a drawing of 13 MB or more to be resident in memory all at once.
- Use giant AutoLISP add-on programs. The old limit of roughly 500K is now one of convenience (larger programs run more slowly, because AutoLISP is an interpreted, rather than compiled, language).

The OS/2 version is slower (about the speed of the older straight-DOS AutoCAD 10), but can do everything above. In addition, it can:

- Run on older 80286 ("AT-style") computers you probably already have. That's not as much of an advantage as you might think, however. You will probably need to add extra memory (6 MB total is our recommended minimum). RAM is selling for \$150-200 per MB as of this writing, with prices rising slowly after a drop this past fall. OS/2 itself sells for about \$800 (versus \$100 for MS-DOS or PPC-DO). You save \$3,300 on the price of AutoCAD itself. But the extra RAM and OS/2 software adds about \$1,000 per seat to the existing computer's cost.

- Exchange data. As more OS/2 software becomes available, more will support dynamic data exchange (DDE). That, in turn, will allow easier use of your drawing database inside non-AutoCAD software that can schedule projects, write bills of material and schedules, and so forth. AutoCAD drawings can be pasted to the OS/2 clipboard and thus exported as bitmapped images to other software. Bitmapped images cannot be turned into AutoCAD vector images this way, however.

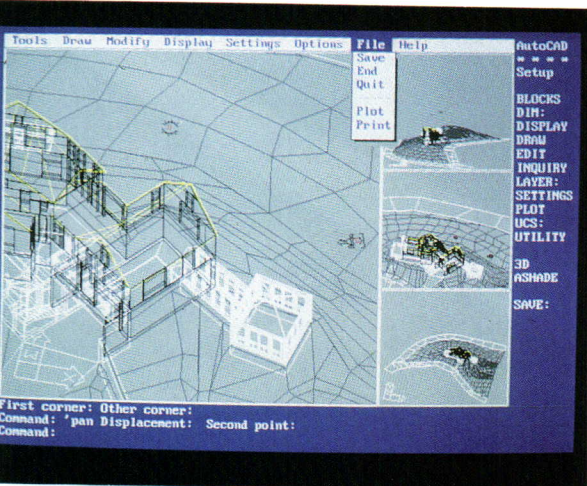
- Easy to network. It will not be until later this year, however, before OS/2 can truly "multitask." Multitasking allows one or more programs to run in the background, while one runs in the foreground. But at this moment, most OS/2 applications do not truly multitask. The background applications are often "frozen" when the foreground application is running. AutoCAD itself does support multitasking, so one copy can run in the background (to plot a drawing, for example).

This also allows an AutoCAD terminal to load one file on a network, while working on another. A designer could see one drawing change as another designer worked on it, while he or she worked on another. But, except on the very fastest computers (an 80386-equipped machine at 25 MHz, at least), doing this will slow the system down too much.

One commonly used spreadsheet package, Excel, does multitask under OS/2. Look for add-on software that exploits this ability.

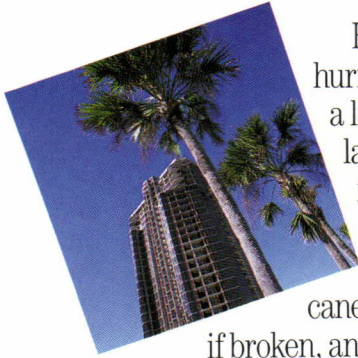
The OS/2 version cannot run AutoShade or AutoFlix. AutoCAD 386 can. But even with OS/2 you can create the filmroll file, and then use the DOS versions of these programs to view the filmroll "slides" on-screen.

AutoCAD 386 cannot use the PS/2 mouse. The OS/2 version can. The OS/2 interface is easier to use. But, as with the Mac version of AutoCAD, the software does not take full advantage of the interface. The OS/2 version cannot connect to a dot-matrix or non-Postscript laser



The easiest way to work in 3-D is to select an existing entity and let AutoCAD realign its Z-axis to the entity's Z-axis.

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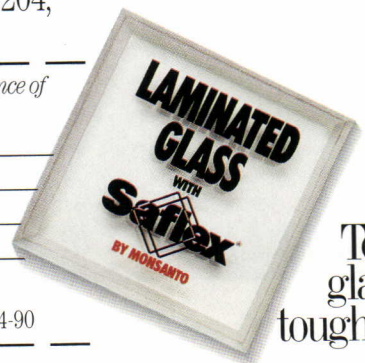
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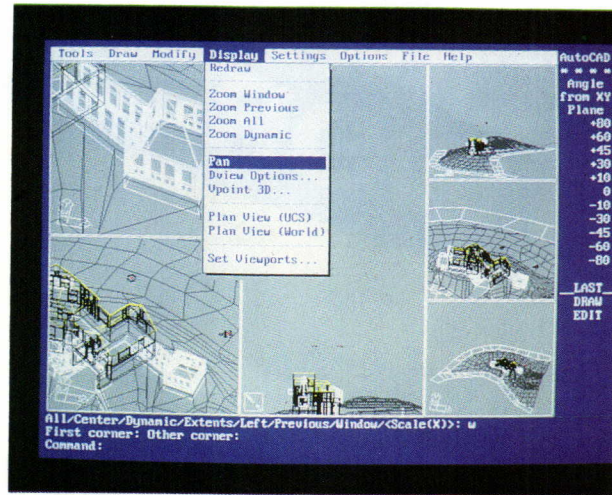
printer used as a plotter. The 386 version can. But most offices use laser printers with Postscript. They can run with either package.

Both versions allow pull-down menus to be accessed from the digitizer. AutoCAD calls this "mole mode" for OS/2. It is built into the interface for the 386 version.

AutoCAD has always offered a number of features—some automatic and thus hidden from users—that facilitate transfer of files to and from DOS, UNIX, Macintosh, and now OS/2. In DOS systems, for instance, the backslash (\) separates subdirectories. In UNIX, the slash (/) is the separator. In AutoCAD, you can use either one. Likewise, UNIX and Macintosh filenames can be either upper- or lower-case. DOS and OS/2 file-names can be either one, but are recorded on disk as upper-case only. If you type a filename as lower-case in AutoCAD, it will appear upper-case, but transfer to UNIX in lower-case.

Likewise, DXF and IGES files are text-like representations of drawing files. Some systems separate the lines of text and numbers with carriage returns, and some use no separators at all. DOS usually uses a carriage-return linefeed pair. AutoCAD handles the line-endings automatically in DXF and IGES, and in text inserted into your drawings as well.

If you are now using AutoCAD 9 on an 80286 computer, you can upgrade to the OS/2 version for less than \$2,000. That's \$800 for OS/2 itself, \$600 for 4 MB of RAM (this assumes you have 2 MB now), and \$500 for the upgrade. Why upgrade? To use the AutoCAD 10 file structure (fast becoming a standard, compared to the 2-D representations of AutoCAD 9), to design in 3-D, to network more easily, and perhaps to take advantage of new add-ons.



Here you see six views open at once—a customized set, not one of the preset options. This is about the practical maximum for typical architectural work on even the fastest computers if you want to regenerate all views continuously on-screen. Regenerations take time. The OS/2 version allows views to be expanded and shrunk on-screen.

The OS/2 version will run about as fast, but may not be able to take advantage of any graphics accelerator card you may have.

Upgrading to AutoCAD 10/386 requires an 80386, 80386SX, or 80486 computer. Add-on boards can sometimes be used to upgrade the 80286 to an 80386SX. Not all combinations of boards and computers work with AutoCAD, however. Consult your dealer. Cost of the board is typically \$800 to \$1,200 installed. If you have to replace the entire motherboard, go all the way to a true 32-bit 80386 for about \$1,600 installed. To either option, add memory.

Equipment cost: \$1,400 to \$2,200. Notice that the extra equipment cost is partially balanced by not having to pay for OS/2 itself. But if you have to network anyway, networking software from Novell, 3COM, and others will set you back \$3,000 to \$6,000. The upgrade from AutoCAD 9 to the 386 version of AutoCAD 10 is \$550.

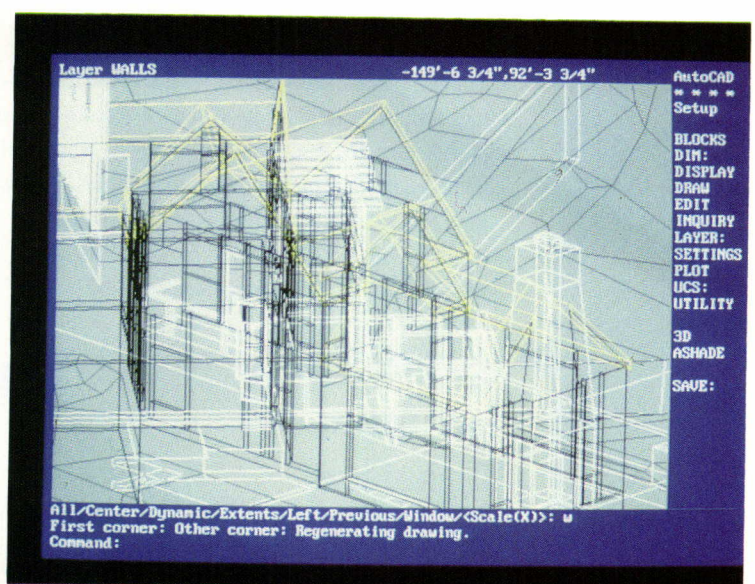
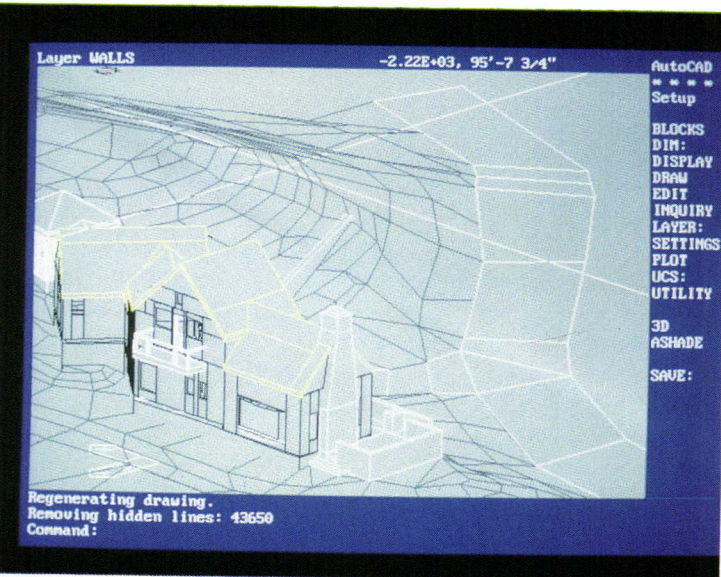
The chief 386 advantage: speed. If you go the 386 route, you have the advantage

of speed now, and an upgrade path using OS/2 on the same computers, later, as OS/2 2.0 with true 32-bit processing becomes available. The upgrade from 386 to OS/2 is currently \$250.

The chief OS/2 advantage: A more intuitive interface, making training easier. And data exchange should also be easier, as more software is built on the new AutoCAD C-language interface, and as more software becomes available with dynamic data exchange.

In short: Go 386 unless you have to network, or unless employee turnover (and thus training cost) is high. Otherwise, the choice is a tossup, depending on your current situation. Buying 80286 computers new, to run the OS/2 version as cheaply as possible, would be a poor investment. □

Mr. Ross is a prominent computer consultant and a regular contributor to RECORD. His latest book, Data Exchange in MS/PC-DOS, was published in 1989 by McGraw-Hill.



since there's no built-in solids modeling or rendering in AutoCAD, you'll need add-ons. However, by using the IDE command, background lines are hidden from view

in a wireframe. In a complex drawing, this takes several minutes. Zooming (right) immediately cancels hidden-line removal. This view has over 30,000 hidden lines.

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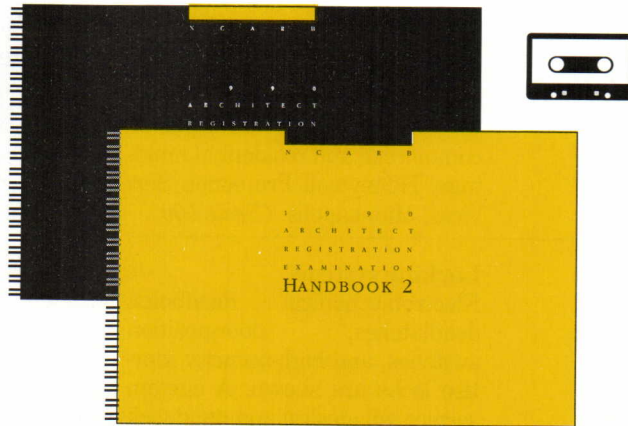
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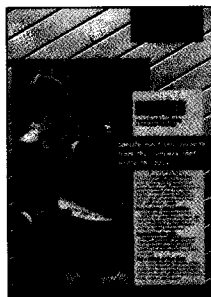
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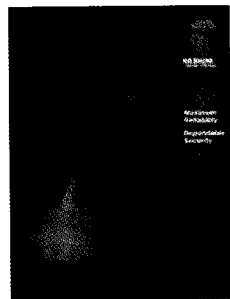
Designing for security

Security Solutions booklet highlights electronic systems that protect property, manage entry, detect fire, monitor sprinklers, and provide camera surveillance for remote areas in all types of commercial and residential buildings. Honeywell Protection Services, Minneapolis. *Circle 400*



Single-source

Diebold offers the architect electronic security products, service, and design assistance. A four-page catalog highlights access control, central station, alarm, and video-surveillance systems. Diebold, Inc., Canton, Ohio. *Circle 406*



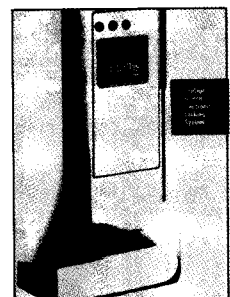
Locking systems

Electromechanical deadbolts, deadlatches, door-position switches, and high-security mortise locks are shown. A custom service will design and build lock control panels to meet specific access needs. R. R. Brink Locking Systems, Inc., Shorewood, Ill. *Circle 401*



Monitoring systems

A brochure on the COMSEC system explains its ability to reduce the risk of forced entry, intrusion, fire, and wasted energy by monitoring access control, perimeter protection, CCTV, and energy-control devices from a central location. Mosler, Hamilton, Ohio. *Circle 407*



Computerized access control

The Intellis Electronic Locking System combines a commercial-grade Schlage mechanical lock with a battery-operated microprocessor to create a versatile access-control device that needs no hard wiring or customized door preparation. Schlage Lock Co., San Francisco. *Circle 402*



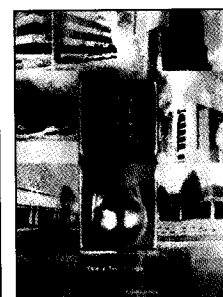
Tailor-made security

The high-technology capabilities provided by OMNI II equipment can be customized for specific building and occupancy requirements. A brochure outlines typical configurations used in hotel, institutional, and commercial applications. Javelin Electronics, Torrance, Calif. *Circle 408*



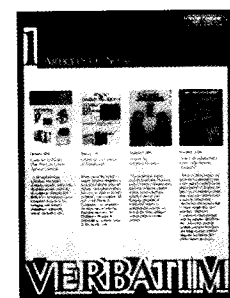
Security devices

A folder introduces a range of access control devices for both single- and multiple-door installations, watchlocks and computerized security patrol monitors, and accessories such as exit alarms. System design assistance is offered. Detex Corp., New Braunfels, Tex. *Circle 403*



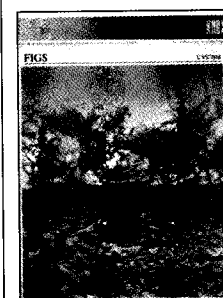
Keyless access system

A four-page brochure highlights features and gives technical and application information on the self-contained Touchcode keypad, which electronically operates mortise or cylindrical mechanical locksets. Yale Security, Inc., Charlotte, N. C. *Circle 409*



Site-specific security

Security installations for hospitals, airports, and police facilities are reviewed in articles prepared by a manufacturer of computerized access control systems. Also offered is an architectural catalog of security products. Northern Computers, Inc., Milwaukee. *Circle 404*



Video surveillance

An in-ground camera that is remotely triggered to pop up and detect intruders is described in a brochure from a maker of integrated energy/security control devices and state-of-the-art concealed media equipment. Knox Security Engineering Corp., Greenwich, Conn. *Circle 410*



Central-station installations

Corporate literature explains the services offered by SecurityLink, a network of locally operated vendors who design security installations incorporating products from a number of prominent suppliers. SecurityLink Corp., Orange, Conn. *Circle 405*



Residential security

A color booklet describes the "home security system of the future", which can do everything from repel burglars to turn off lights when a room is unoccupied. Home Automation, Inc., Metairie, La. *Circle 411*

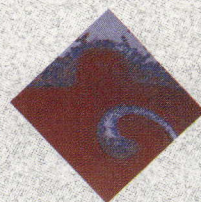


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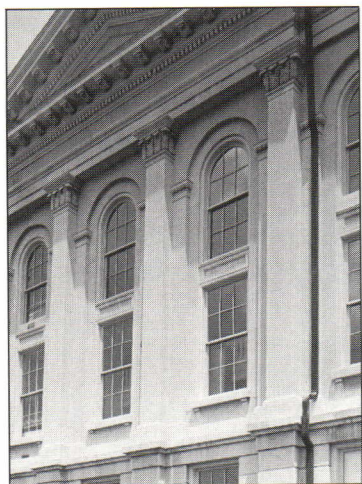
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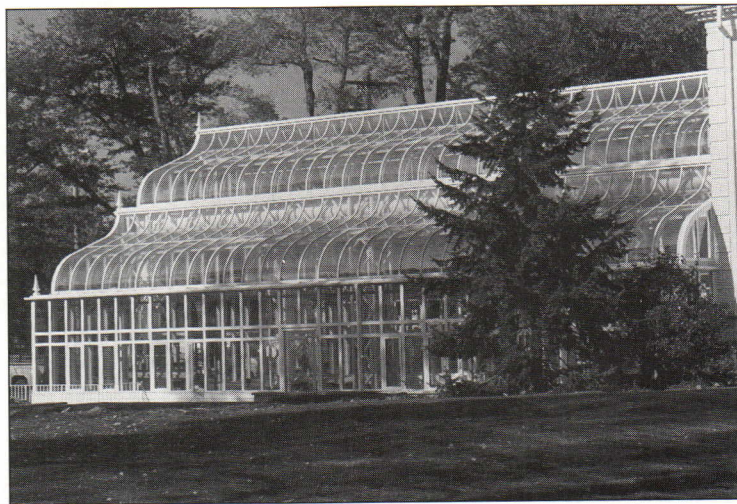
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Continued from page 127



Heavy commercial window
Offered in single-hung, double-hung (pictured), and horizontal sliding models, the Commercial-Line architectural-grade window is factory glazed with 1-in. insulating glass; thermally efficient frames come in a wide range of painted and anodized finishes. Kawneer Co., Inc., Norcross, Ga.

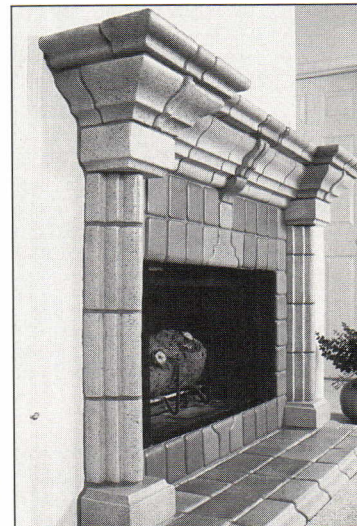
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Glazing material
Hyzod SolarShield SR, a polycarbonate sheet with a fusion-bonded acrylic surface, is said to combine the UV-resistant properties of acrylic with the impact- and fire-retardant characteristics of polycarbonate. Particularly suitable for overhead glaz-

ing applications, sheets of clear SolarShield were cold-bent on-site to fit the curves of this English-style conservatory by Machin Design, USA. It is also available in solar bronze and gray tints. Sheffield Plastics, Inc., Sheffield, Mass.

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Details in terra-cotta
Custom-design elements (a fireplace is shown) can be assembled of standardized modular components of handmade terra cotta. Architectural forms such as columns, pedestals, moldings, sconces, and surrounds are created simply by rearranging components. Terra-cotta modules come in a range of colors, textures, and styles. Architerra Austin, Austin, Tex.

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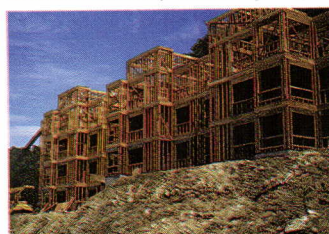


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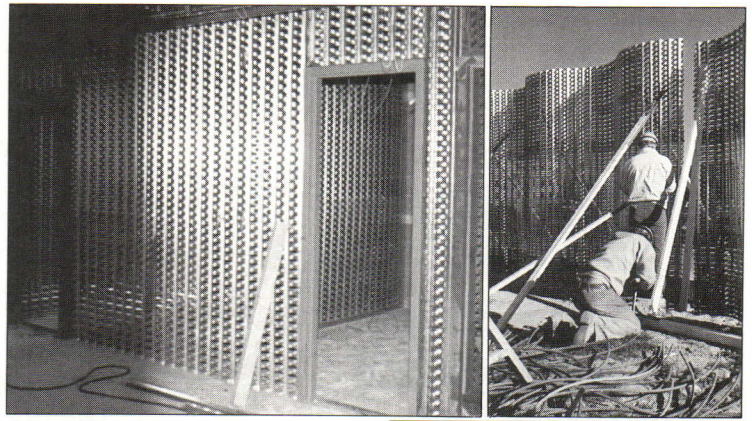


Task light

A sleek, compact halogen light created by the Porsche Design Studio for PAF, Jazz features an extendable arm that glides out from a fold-up base. The

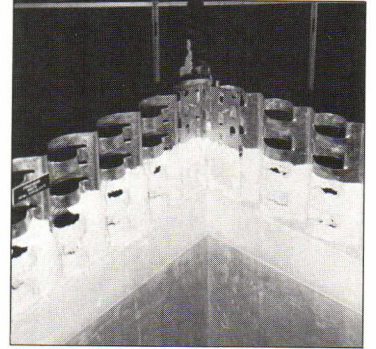
electrical cord retracts into the base for easy carrying. The luminous switch incorporates an electronic dimmer. Koch + Lowy, Long Island City, N. Y.

Circle 304 on reader service card



Security wall system

The Structocore wall, consisting of specially formed galvanized-steel mesh sheets that provide continuous reinforcement for machine-applied base-coat plaster or portland cement stucco, is both thinner and lighter than concrete-block walls. Walls only 4 1/2-in. thick can resist ballistic threats of up to rifle level under SD-STD-1.02 and are recommended for jail-cell partitions and security vaults. While not load-bearing, the wall can support very heavy fixtures such as beds and sinks, and readily accommodates elec-



trical conduit and plumbing pipes. United States Gypsum Co., Chicago.

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Continued on page 149

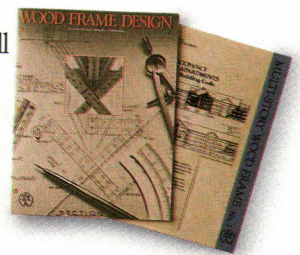


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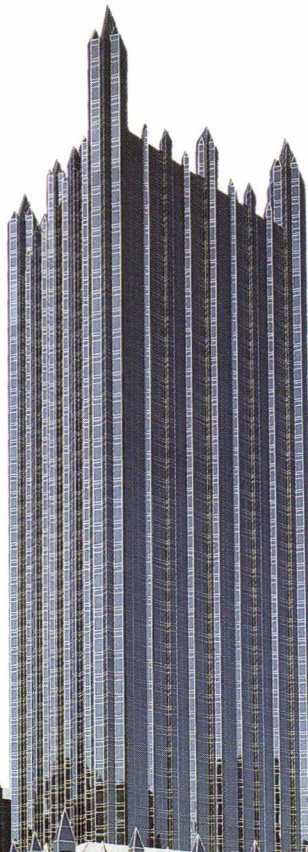
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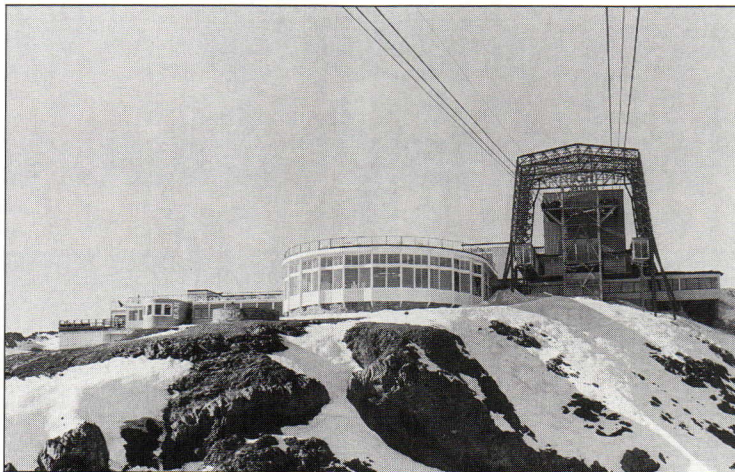
Continued from page 145



Structural lumber design

Developed for the American Institute of Timber Construction, a new DOS-based program makes it possible to quickly determine the size of structural glue-laminated timber beams having a constant rectangular cross section. Called GLSizer, the software simplifies the sizing of glulam bending members, even those with complex loadings, such as multiple-span or cantilevered beams. Design solutions are produced with the wood species, beam size, and laminating combination graphically depicted. American Institute of Timber Construction, Vancouver, Wash.

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Wind-rated metal panels

A new 24-gauge Klip-Rib, which permits a flatter profile on both roof and siding panels, carries a UL-90 wind-uplift rating. Applied on purlins 5-ft o.c., panels can be ordered in specific lengths to eliminate endlaps. Architects Bull, Volkman, Stockwell of San Francisco used the system for the mountain-top Squaw Valley High Camp (left), subject to 125 mph winds and extreme snow loads. ASC Pacific, West Sacramento, Calif.

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Jointed tile

A new tile configuration from Impruneta, Modoflex consists of two rectangular terra-cotta tiles held together by a flexible, ribbed-rubber hinge. The two parts are sized to fit the step and riser of stairs, as shown, with a 12- by 12-in. tile tread connected to a 6- by 12-in. tile riser. Modoflex can also be used at floor-to-wall transitions. The tile itself is frost proof. Tile Group Italia, Elk Grove Village, Ill.

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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 68-73

The NBC Tower at Cityfront Center
Skidmore, Owings & Merrill Architects
Precast concrete spandrels: Material Service.
Granite: V.S. Walgren. Limestone: Harding & Cogswell Corp. Windows: Inland Windows. Tinted glazing: Cardinal Glass. Elastomeric roofing: American Hydrotech. Bronze entrance and grilles: MTH Industries. Lighting: Custom by architects, fabricated by CSL Lighting. Marble: Campolongo.

Pages 74-77

Bonauro Studio
Interim Office of Architecture
Translucent panels: Filon Div., Engineered Materials Co. Custom casework: Pacassa Studios. Windows and lighting: custom by architect. Desk chair: Krueger (Vertebra Chair).
Page 76—Wall storage piece: designed and made by Phillip Agee. Faucets: Chicago Faucet Co.

Pages 84-89

Bristol Pool, Hamilton College
Perry Dean Rogers & Partners Architects
Pages 84-87—Glass block: Pittsburgh-Corning Corp. Windows and exterior doors: Curries Co. Gable skylights: Super Sky Products, Inc. Stone: Herkimer Fieldstone. Tile roofing: Ludowici-Celadon. Metal roofing, fascia, and wall panels: Zip-Rib, Inc.
Pages 88-89—Pendant lighting: Holophane. Tile: Partek. Paints on metal surfaces: Tnemec. Wall finish: Sto Industries, Inc. Ramp carpet: Heron Vinyl (Duckboard). Non-slip concrete flooring: The Euclid Chemical Co. Railings: Faulli & Sons, Inc. Linear suspended lighting: Litecontrol Corp. In-floor diffusers: Gauthier Sheet Metal. Lounge carpeting: Lee's Commercial Carpet. Linear diffusers: Air Devices, Inc. Track lighting: Edison Price, Inc.

Pages 90-93

Hodgkin Hall
David Baker Architects
Metal roofing, panels, and walkway cover: Copper. Ornamental fencing: Ironcraft. Play equipment: Big Toys. Windows: J&D. Glazed doors: All-Wood. Lever locksets: Schlage Lock Co. Door hardware: Von Duprin. Site furniture: Jade Design-Build.
Pages 92-93—Suspended and bracket lighting: custom by architect, shade by Ban-lite. Resilient flooring and wainscot: Azrock Floor Products. Paints: Benjamin Moore & Co. Area rug: design by David Baker and Rita Burgess, woven by Tai Ping Carpets. Wood chairs: existing, custom-colored with aniline dye. Upholstered seating: Brayton International. Fabric: Unika Vaev. Fireplace tile: American Olean Tile Co. Timber connections: John Fick.

Pages 98-101

Fashion Island
The Jerde Partnership, Inc., Architects
Stucco: U.S. Gypsum. Floor and courtyard tile: Bayshore Tile. Built-up roofing: Owen Pacific. Aluminum windows: Mesa Glazing.

Pages 102-105

North Pier
The Austin Company and Booth/Hansen Associates, Architects

Pages 102-103—Curtainwall windows: custom by Ilope's Architectural Products, Inc. Double-hung windows: Republic Aluminum. Glazing: PPG Industries. Entrances: Service Glass. Paints: Pratt & Lambert. Architectural woodwork: American Heri-

tage Woods. Exterior paving: Bomanite. Outdoor seating: Landscape Forms, Inc.

Page 97, 104-105—Metal tiles: Argo Industries. Terrazzo: John Caretti & Co. Metal tables: Falcon Products, Inc. Light fixtures: Steven Frank Studio. Escalators: Montgomery Elevator Co.

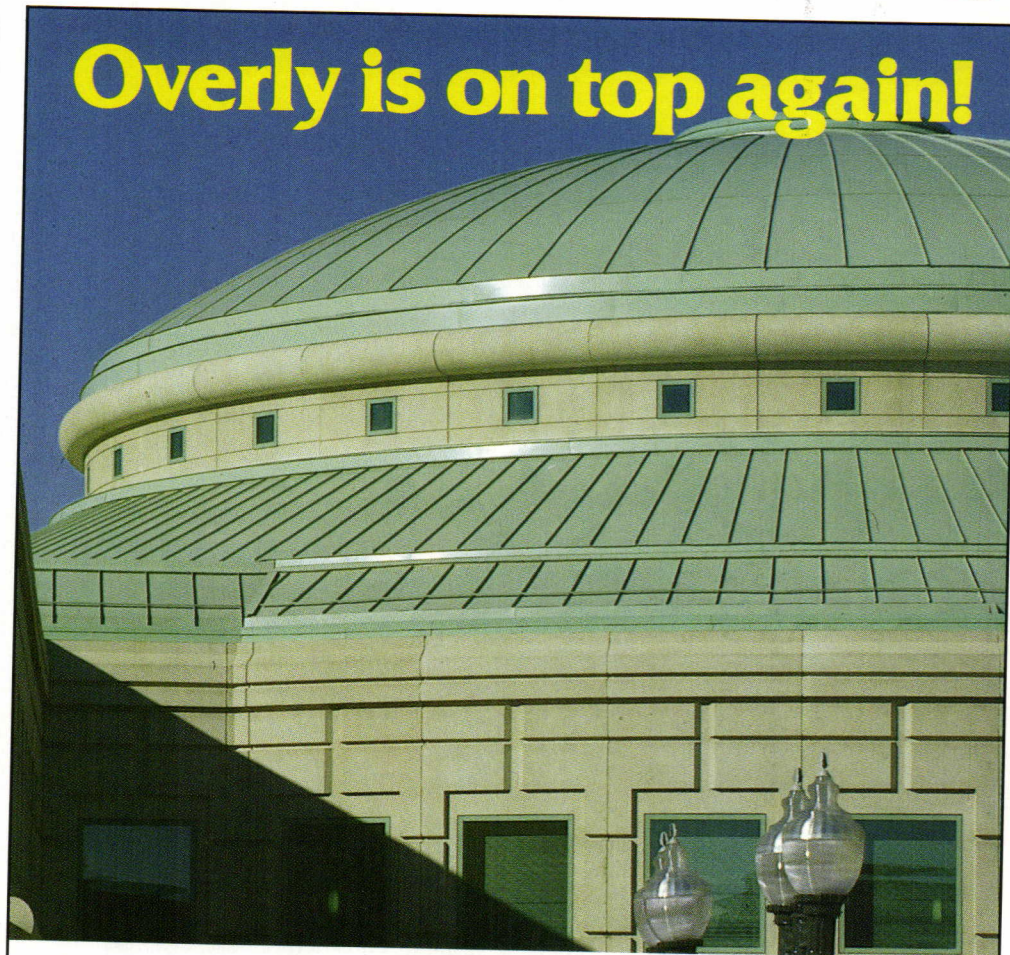
Pages 106-107

Napa Town Center
Field Paoli, Architects
Exterior finish: Dryvit Systems, Inc. Benches: Smith & Hawkin. Pavers: Kratzer. Lighting: Moldcast.

Pages 108-111

A&S Plaza
RTKL Associates, Inc., Architects
Pages 108-109—Curtainwall: Cupples Products Div., H. H. Robertson. Granite: Balmoral Red and Mt. Airy White. Skylights: SuperSky Products, Inc. Aluminum windows: Kawneer Co., Inc. Glazing: Spectrum. Stainless steel doors and entrances: Allied Bronze. Interior storefront systems: Allied Bronze and Falconer Glass Industries.
Pages 110-111—Paints: Ox-Line. Wall tile: American Olean Tile Co. Floor facing tile: Buchtal. Carrara and agglomerate marble: MAB. Metal chairs: EMU. Tables: Johnson Industries. Site accessories: Glasspec. Special lighting: NL Corp. Escalators: Otis.

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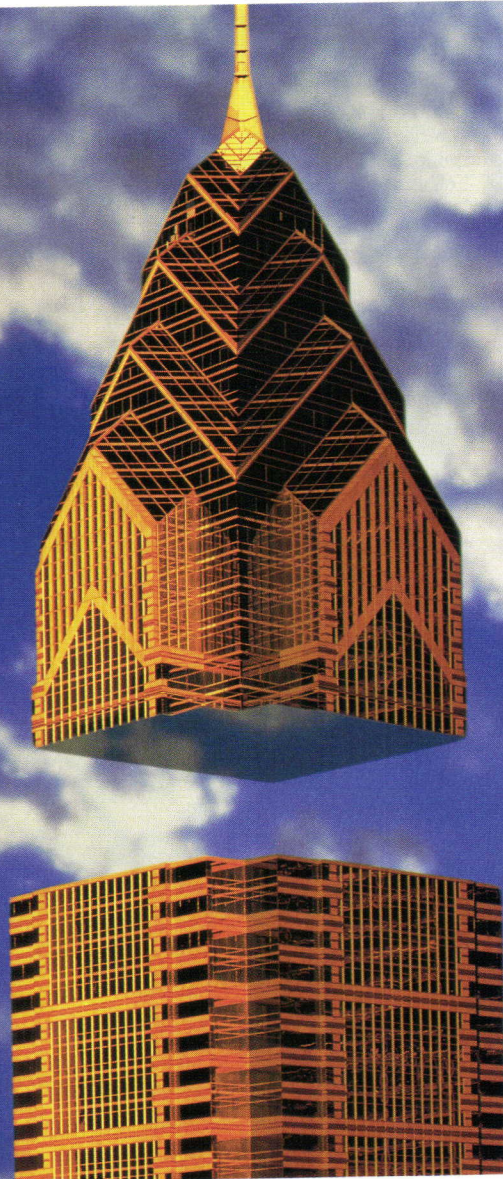
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Continued from 79

fan-shaped site, this one near the Eiffel Tower, the building is meant as a metamorphic interplay between French and Japanese cultures. The structure takes physical cues from adjacent buildings, and then visually transforms them from Parisian verticality, with its Classical motifs and rigorously ordered gardens, to Japanese horizontality, with its asymmetrical, ritualized traditions of landscape.

The dominant configuration of the Cultural Center is also based on the Japanese fan and includes various sub-themes responsive to internationally identifiable images of the culture—the radiating sun, the layered plates of Samurai armor, regional topography, and various forms of symbolic gardens. The fan shape is at its greatest geometric consistency on the roof level; then, as utilized throughout the rest of the building, this convention becomes increasingly informal (de-materialized) and, on each floor level, serves as cantilevered balconies to support a weave of landscapes. The total ensemble appears as though a series of horizontally stacked fans were revolving slowly at different speeds. The main enclosing (recessed) walls are glass; but the true facade is created by the transition between freestanding window frames and terraces (representing the French context) and their gradual metamorphosis into every category of Japanese garden.

Vegetation is clearly the major feature of this building. It starts on one side as formal Parisian gardenscape, and, as it progresses around to the other side, the landscapes become wider and more enclosing toward the interior space to emphasize views of the Eiffel Tower and the Seine.

In many ways the concept for the Cultural Center is a crystallization of certain narrative approaches and landscape ideas that have characterized SITE's work of the past two decades. This building stands for a heightened level of inclusion in the urban context. It is not an isolated structure to be perceived only for its abstract relationships of form and space, but rather, it is public art that accounts for the mythology, cultural heritage, regional and imported imagery, and natural environment of two nations.

The major advantage of narrative architecture in today's world is that it liberates the designer to address the actual (but often suppressed) desires of clients—particularly among municipalities and counties—to have buildings that reveal their unique identities. The traditions of Modernism, Postmodern historicism, and, more recently, the surge of neo-constructivism that preoccupies theoretical circles are still strained by the notion that architecture exists as a kind of hermetically sealed endeavor whose only standards of evaluation are based on how adeptly volumes and

spaces have been orchestrated. Even when contextual sensitivity is proclaimed by architects, the results are too often reflective of time-worn formalist relationships that have nothing to do with the psychological or informational nature of a specific location. Narrative ideas in the building arts are successful to the degree that architecture expresses the notion of mutability and change. This concept underplays the usual aggressive physicality of buildings and converts their visual language to a more speculative public dialogue, to a condition of questioning and commentary.

By taking vegetation out of the ubiquitous planter and using it as an extension of

structure and form, SITE has demonstrated one available option to create an iconography of flux and change in architecture, and to add those desperately needed fragments of nature in our overwhelmingly concrete cityscapes. As Voltaire indicates in *Candide*, the garden exists as the perfect sanctuary, but also as the essence of humanity's struggle to survive. To blend this idea of conflict, this ultimate dialectic, into contemporary buildings is an intriguing and necessary challenge for architecture in the 1990s. Admittedly, art cannot change the world, but it can at least indicate a direction and make the audience think. Green is the message of the future. □

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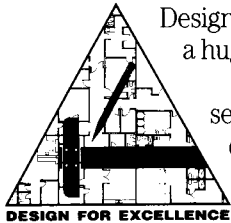


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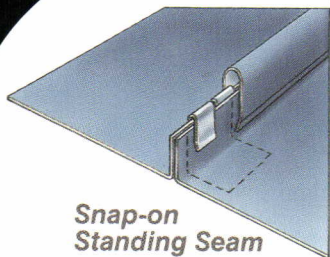
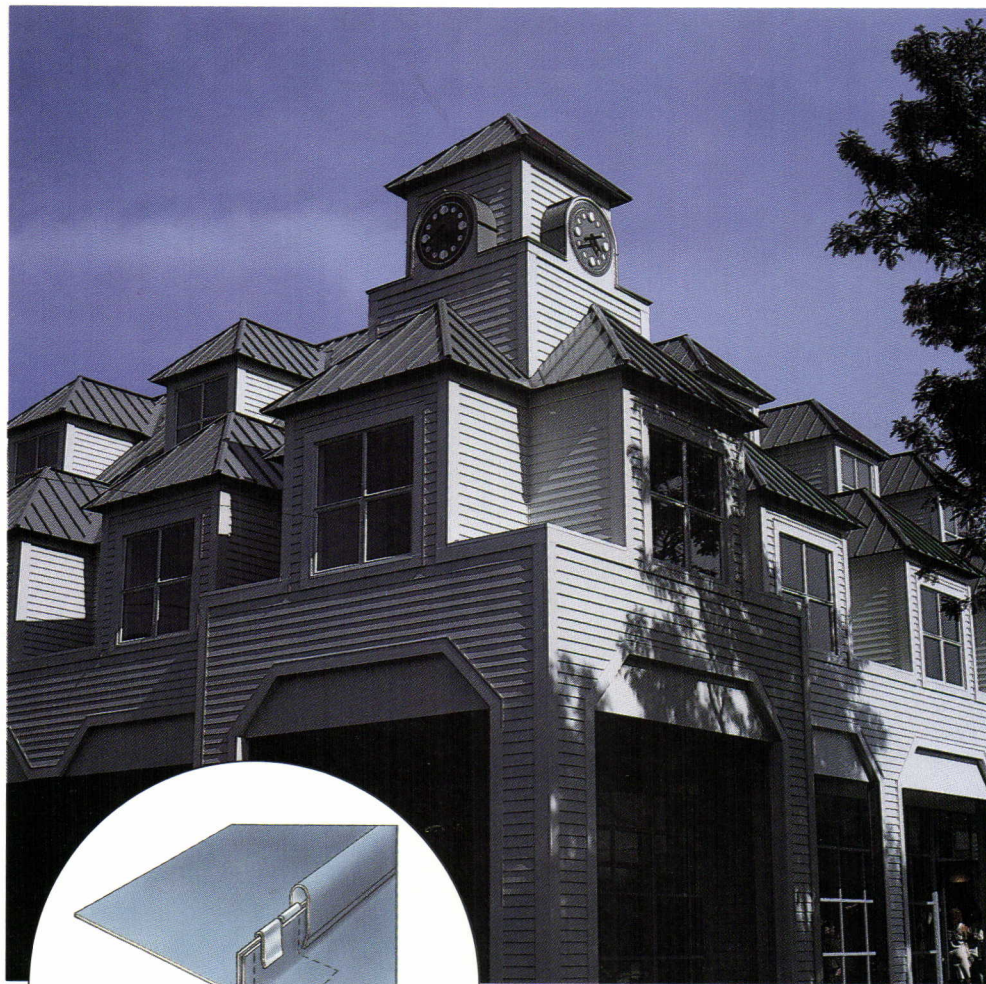
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