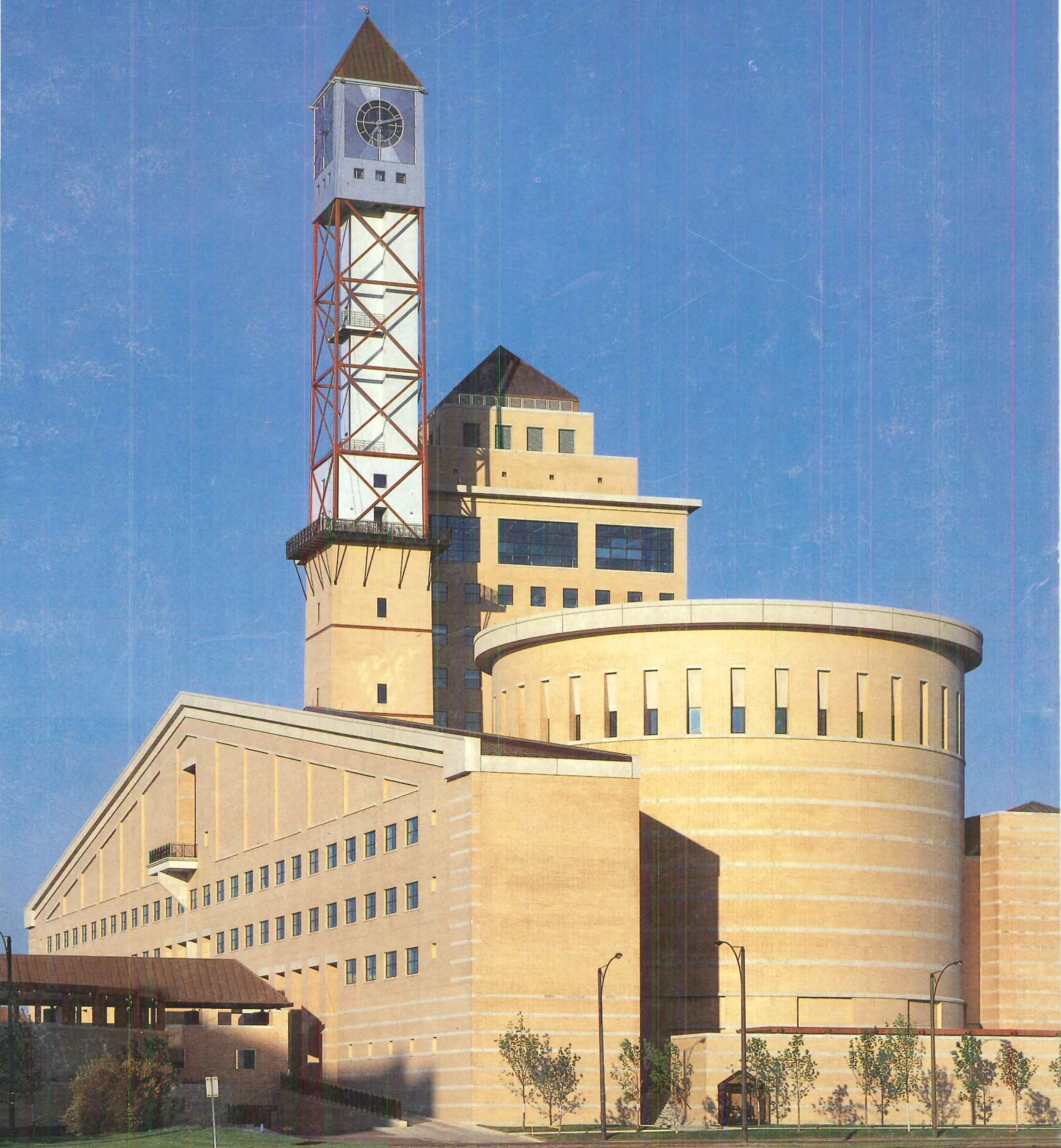


# Progressive Architecture

AUGUST 1987





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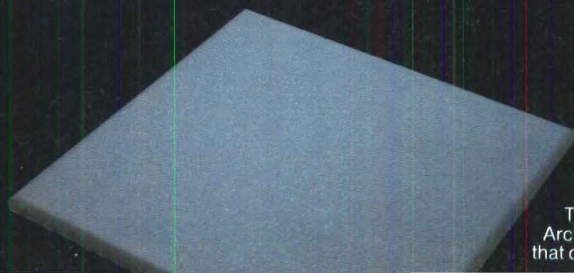
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ABP

**ARCHITECTURAL DESIGN***Editor in charge: Susan Doubilet***69 City Image**

The Mississauga City Hall, Mississauga, Ontario, by Jones & Kirkland, winner of a Canadian competition and a P/A Awards Citation, creates a centerpiece for a developing city. *Jim Murphy*

**80 Parliament House Update**

Construction photos reveal forms and details of the new Parliament House in Canberra, Australia, by Mitchell/Giurgola/Thorp, due for completion in 1988. *Grant Marani and Anne Rieselbach*

**86 Inside the Garden Wall**

Inmates of the Clinton Correctional Facility, Dannemora, N.Y., have created courts out of found materials, shown in photos by Joshua Freiwald. *Pilar Viladas*

**88 P/A Profile: Martorell-Bohigas-Mackay**

Three buildings are representative of the work of Barcelona architects Josep Martorell, Oriol Bohigas, and David Mackay: Escuela Cataluna public primary school; Masia Can Sumarra Library, a conversion of farm buildings; and Casa Canovelles, a private residence. *Susan Doubilet*

**98 Plane Spoken**

The BASCO showroom in New York, by Rosenblum/Harb Architects, is a suitably modern space for displaying the firm's equally modern sportswear. *Pilar Viladas*

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New graphic and technological developments are enabling the creation of more effective, attractive, and flexible signage. *Thomas Vonier*

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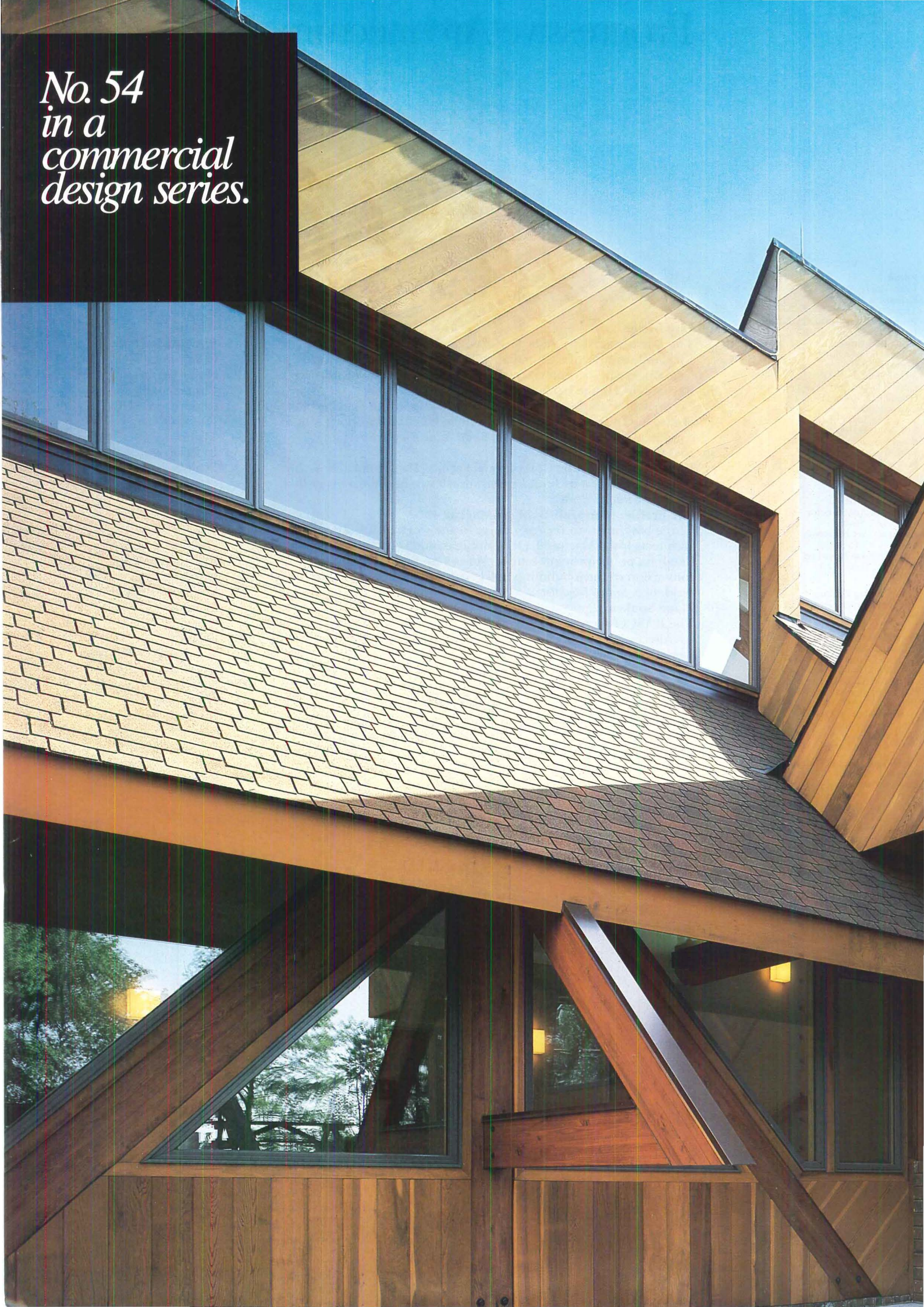
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**Cover**

Mississauga City Hall,  
Mississauga, Ontario, by Jones  
& Kirkland (p. 69). Photo:  
Rupert Burley.



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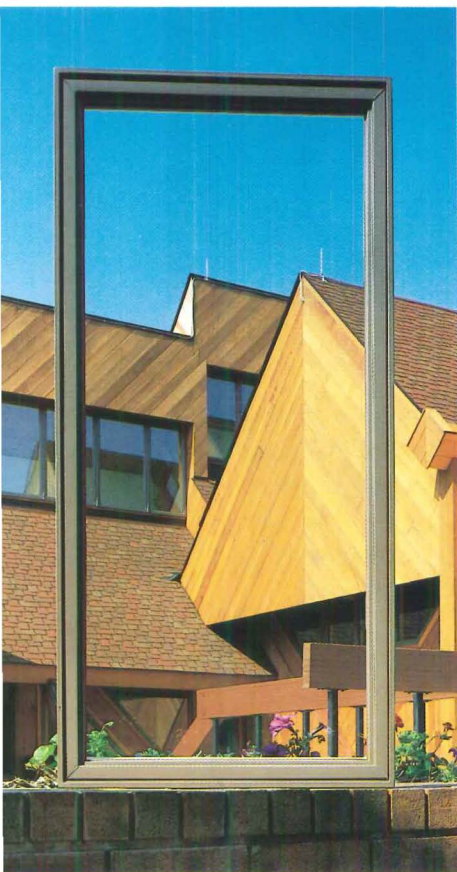


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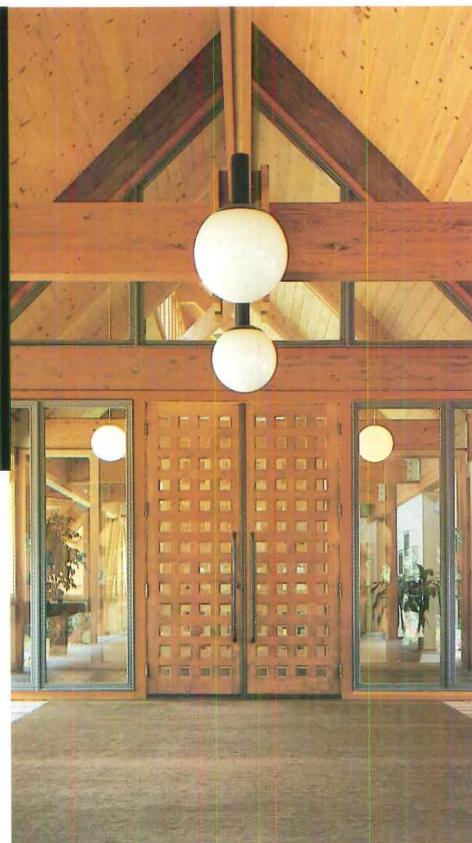
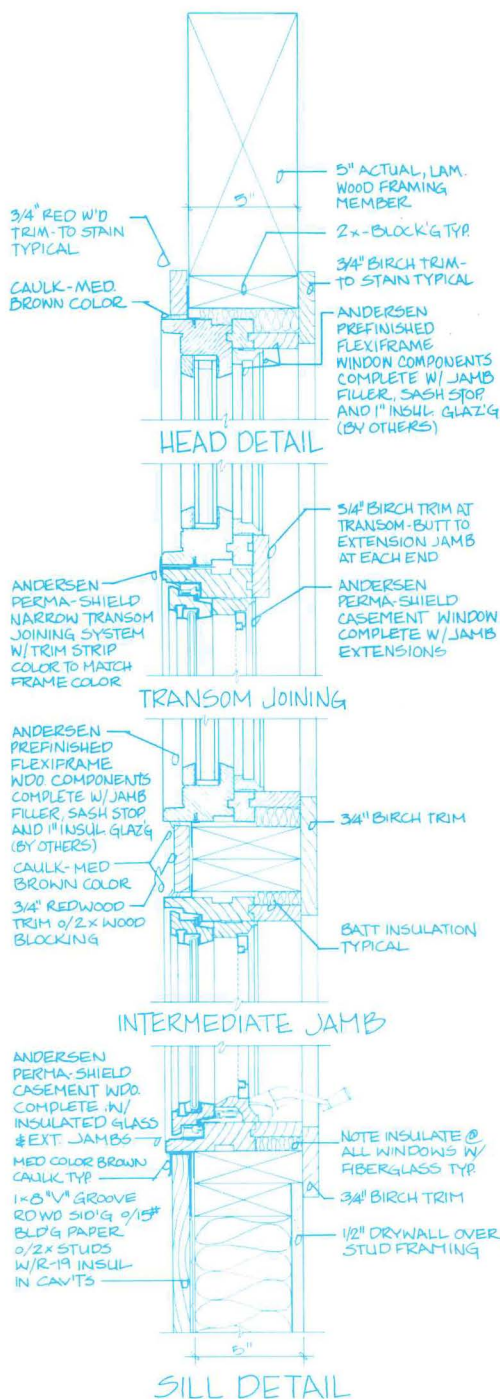
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the Ruhlin Company  
Akron, Ohio

Architects: Gerald M. Rembowski and Associates, Inc.  
Fairlawn, Ohio

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See actual sample for building specifications.

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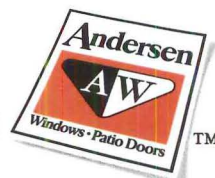
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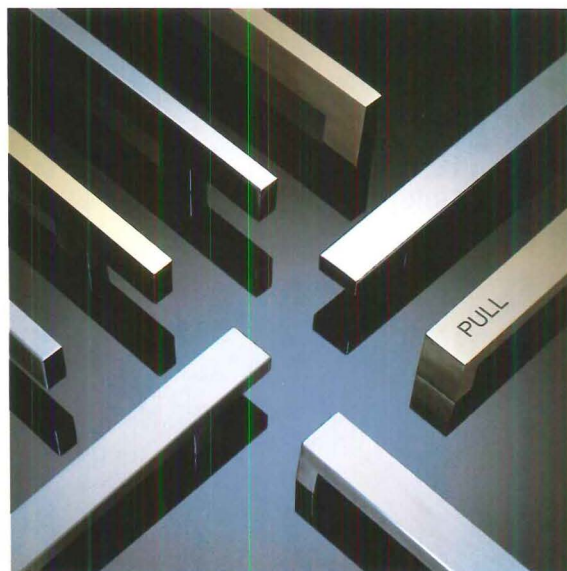
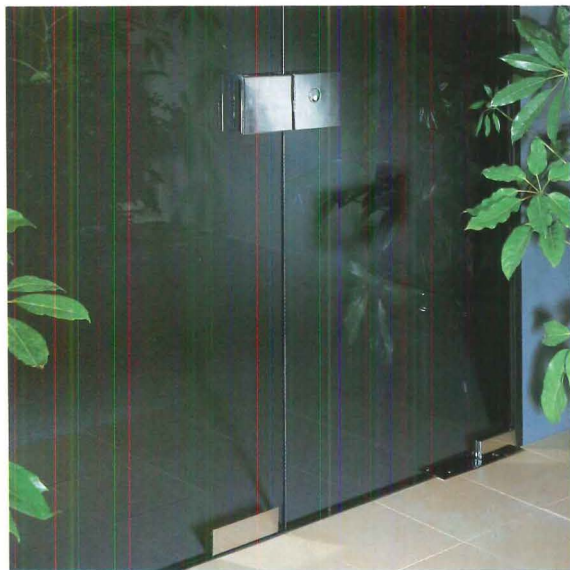
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# P/A Awards

## 35 Years at the Frontier

Dating from 1954, the P/A Awards competitions present a history of the forms and ideas at the leading edge of the profession's thinking.

You are invited to enter the 35th P/A Awards program. Entry forms are on page 111.

"THIS is the way we had hoped it would be," wrote the editors of P/A, reporting on their first awards competition back in 1954. The entries had numbered over 600 and included some of the best known firms as well as some unknown ones; that same mix of established names and new discoveries was maintained among the 57 winning schemes. Except for its staggering number of winners, the first P/A Awards program set a pattern that has persisted through 35 years of changes in architecture that would have been unimaginable in 1954.

In the P/A awards issues, we can find many of the pivotal building designs of these years. Among those that stand today as landmarks are the Society Hill towers, Philadelphia (I.M. Pei, 1961); the Sea Ranch condominium, Gualala, Calif. (Moore Lyndon Turnbull Whitaker, 1965); Kresge College, University of California, Santa Cruz (MLTW/Moore Turnbull, 1970); the Athenaeum, New Harmony, Ind. (Richard Meier, 1979); the Atlantis apartments, Miami (Arquitectonica, 1980); and the Haj Terminal, Jeddah Airport, Saudi Arabia (S.O.M., 1981). A just completed P/A-Award-winning landmark is the Mississauga City Hall (1985 and this issue, page 69).

Sometimes relatively small projects among the winners have signaled emerging design trends: Three projects by Venturi & Rauch ushered in Post-Modernism in the 1967 awards issue; in the 1970 issue, a still-Modernist house by Michael Graves announced his emergence; and in 1980, the Bayonne (N.J.) Hospital project by Ewing Cole Rizzio Cherry Parsky introduced literal historicism.

Some winners are of interest for very particular reasons. The prototype Howard Johnson Motor Lodge (Carl Koch, 1957), though watered down as it was adapted on hundreds of sites, has left us oases of design sanity amidst our roadside sprawl. John Portman has spoken of his winning scheme for a medical building in Atlanta (1956) as a job that foundered despite its recognition, convincing him that he had to become his own client.

In the course of the program's 35 years, the P/A Awards jury comments have recorded the thoughts of some of America's most distinguished architects: Eero Saarinen, Walter Gropius, Marcel Breuer, Gordon Bunshaft, I.M. Pei, Louis Kahn, Paul Rudolph, Charles Moore, Romaldo Giurgola, Cesar Pelli, Robert Venturi, Denise Scott Brown, Peter Eisenman, Charles Gwathmey, Michael Graves, Richard Meier, Frank Gehry, Helmut Jahn, Robert Stern, James Stirling. No sampling of names can be fair to the roughly 200 jurors—most of them architects, but some engineers, planners, researchers, and historians—whose efforts have given the program its stature.

All of these jurors have sought out the best—architectural work that goes "beyond competence" to set new standards. And their judgments have often reflected a cyclical or action/reaction pattern. The jurors for that first program were satisfied that their choices were outstanding, but observed that "what was missing was imagination . . . excitement, fancy." The years immediately following made up for this deficiency with quantities of folded concrete and tracery screens, both favored by Minoru Yamasaki—a frequent winner in those years. It was not until 1962 that a jury observed a return to simplicity and a decrease in "structural gymnastics."

The P/A competitions of the 1960s, of course, reflect a period of social concern: The 1965 jury ruled out single-family houses as "no longer of any social significance." The reuse of old buildings makes its first appearance among the P/A Awards in 1963, and is most prominent among the winners of 1974, when energy was also at its peak as a design concern.

In the juries for the 1973 and 1975 competitions, strongly renewed interest was expressed in architectural form—identified by the jurors as "DE-zign." Post-Modernism reached its high point in the estimation of P/A jurors in 1980; by 1984, there was a reaction against it. Juries since that time have accepted a few overtly historicist works, but have favored schemes that assimilated Post-Modern qualities. Post-Modern concepts of city planning, however, were endorsed most strongly in 1984, when both the Seaside plan by Duany & Plater-Zyberk and the Battery Park City plan by Cooper/Eckstut got P/A Awards recognition.

The next chapter in the P/A Awards' history of architecture will be shaped in the next few months, as hundreds of entries pour in for review by eight distinguished professionals. In January, we will report on their choices and also bring you an expanded, illustrated survey of these 35 eventful years. ■

*John Morris Diefen*



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## Value of AIA: Other Views

The initial conclusion drawn in your recent P/A Reader Poll Report (P/A, May issue, p. 15) involves the perception of the AIA, not the effectiveness of the group. The AIA has a very good record of working with and responding to the problems of the profession. The problem, however, is that our members don't understand or want to listen.

The top priorities listed by the readers are also those of the Institute. Within the Institute we are doing everything that we can with our limited resources, limited finances, and within the restraints of the law to realize these goals. The AIA is a membership organization and can only be as strong as the member involvement will allow it to be. No one is going to do it for us. The listed priorities are all items for which there is no quick or inexpensive solution. Public education and lobbying efforts are very expensive. If members want the Institute to bear the sole burden of this work they have to realize that someone will have to pay for it. When was the last time the respondents contributed to their PAC?

To those who say that the Institute has no effect whatsoever on them as individual practitioners, I say "Open your eyes." The contract documents that are the standard of the industry were developed by the AIA. The attorney's fees to produce these individually would prohibit their use.

The standardization of the procedures of practice and the acceptance of these standards is again the result of much work by AIA. The process of selection of architects, especially by the Federal government, into a system whereby qualifications are used rather than price, is due in no small part to the work of AIA. Practice aids that are used daily by many of us that save time and money, including such basic devices as Graphic Standards and Master Spec are the products of AIA. And when was the last time anyone other than a group of practitioners under the guidance

and assistance of AIA went to their legislature to testify in favor of architectural licensing?

If none of these are things that you use in any way then you are even more affected, because your competitors are using them and gaining a real edge.

And finally, let me say that we should not confuse response that we don't agree with for slow response to current issues. The AIA responded very quickly to the liability insurance crisis. The best, most effective answer we discovered was to help practitioners improve their ability to practice. But this is not the lower priced insurance premiums that many people wanted, so they refused to accept our answer.

AIA is currently providing support, both financial and informational, to the many states that are fighting the licensing battle currently going on with the Interior Designers. But AIA can't tell legislators what to do. You, the voters can try.

If AIA's problem is perception this can be solved by spending our resources on a campaign to tell our members just how good we are, or they can simply get really involved and find out for themselves.

*David Allen Daileida, AIA  
Mariani & Associates, Inc.  
Washington, D.C.*

I have read the results of the "Value of the AIA" reader poll (P/A, May issue, p. 15). What I liked best about your summary was the Morrisons' observation that the membership is made of three segments, two of which are "radical."

Since I absolutely classify as a rabidly enthusiastic AIA member, I find it useful to step back and take a more objective view of what it is that I, via the AIA, have been trying to contribute to the profession. I have never believed that the AIA was very good at what it does, but simply that it is the only vehicle available to us to enact collective improvement on behalf of a very divided profession. Your article has provided the Institute with a good quick assessment of what

their task really is—that of not only shaping the public's view of architects, but also resolving this conflict within the profession which contributes to the public confusion over what our role is and could be. It is this very division which keeps the AIA from being effective, and which, once resolved, could empower the profession to radically change the way it addresses its image problems, both as individual professionals and via the AIA.

*Nora R. Klebow  
Associate Member, AIA  
San Francisco, Calif.*

## Saudi Capital

In the news item on the Royal Danish Embassy (May 1987, p. 49), may I call to your attention that an embarrassing, but unfortunately typical American (and often Canadian) error was made regarding geographical/political knowledge or lack thereof. The capital of Saudi Arabia has always been the city of Riyadh. Jeddah never was the capital, although since the inception of the Kingdom of Saudi Arabia almost 60 years ago, all embassies and consulates were located in that Red Sea harbor city until recently.

I hope you will return to this country with articles in your publication, as many U.S. (H.O.K., for example) and Canadian (A. Erickson), etc., have done outstanding work, as have, more importantly, several Saudi architects, often educated in the States, who are coming out with exceptionally good indigenous architecture.

*Emiel VD Meulen  
Landscape Architect (Canadian)  
Riyadh, Saudi Arabia*

[We knew that Riyadh has been the capital, and that embassies are now moving there. Sorry we let this error slip through.—Editor]

## Sturbridge not so Antiseptic

An article in the February P/A (p. 28) referred to a landscape "now scrubbed so pure and pristine that it resembles the antiseptic museum villages of Sturbridge or Mystic Seaport." A

letter from Jack Larkin, Chief Historian of Old Sturbridge Village (Sturbridge, Mass.) points out that the village's concern for authenticity precludes use of modern mowers or hybrid grasses; field grasses are controlled with scythes and grazing. "Our oxcarts drip muck when our farmers are carting manure," Larkin reports.—Editors

## Company Name Update

T&W Systems, makers of VersaCAD CAD systems (P/A, April 1987, p. 125), is now known as VersaCAD Corporation.

## Tange Already Honored

Kenzo Tange could not possibly have been considered for this year's AIA Gold Medal (May 1987 P/A, Editorial, p. 7) since he received that highest AIA honor in 1966. Informed sources report that three American architects were top contenders for the medal this year, but none received enough votes of the AIA Board.

## Photo Credit Extension

Photos of the Center for Women's Health at Cottonwood Hospital, Utah (P/A, May 1987, pages 98 and 100), were by John Sutton, John Sutton Photography, San Francisco.

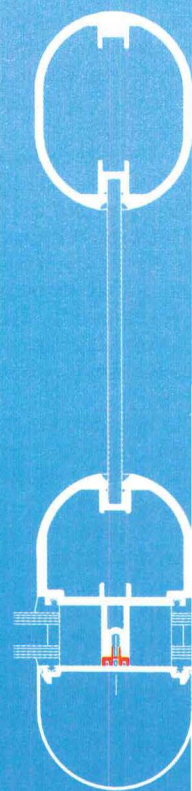
## Hospital Design Credit

The University of Washington Hospital project (P/A, May 1987, p. 103) should have been credited to Waldron Pomeroy Smith Foote and Akira, Architects, Seattle, in association with CRSS, Inc., Houston.

## Credit Correction

The two projects credited to Holden Architects in the June P/A (p. 71) should have been identified as the work of Holden-Suda Architects, a partnership between Philip Holden and Larry Suda that existed from 1982 to 1986.







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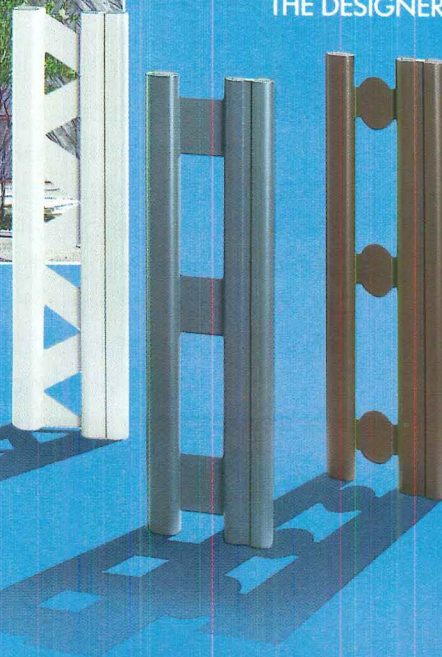
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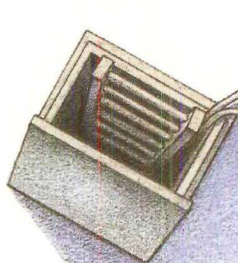
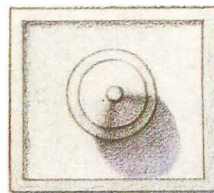
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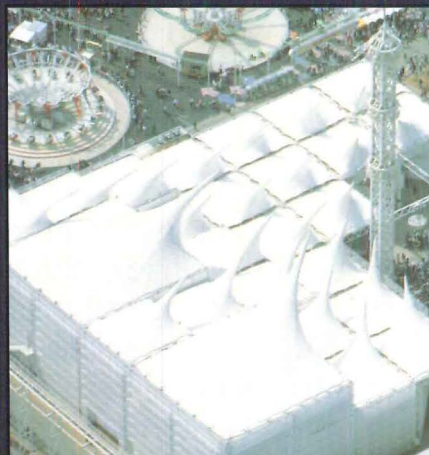


# FANTASTIC

*The flame-like shapes pictured here form the roof structure for a multi-story electric power pavilion at the Tsukuba Expo. After dark, floodlights with rotating color create a vibrant effect of flickering flames. By day, the roof structure remains a striking eye-catching design, though quite different from its nighttime appearance. The white translucent fabric reduces daylight lighting requirements and conserves energy.*

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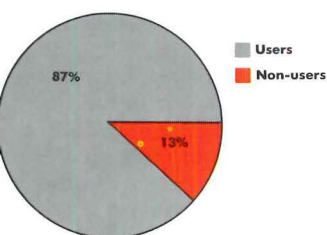
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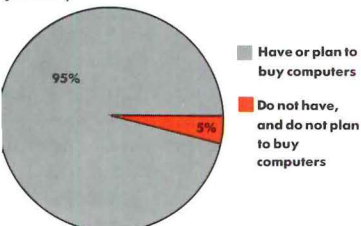
# P/A Reader Poll

## Computer Use

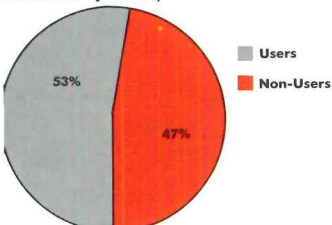
By now, the vast majority of architectural firms either have or plan to acquire computers. And while many concede that design cannot be totally computerized, most of those who are already users are satisfied.



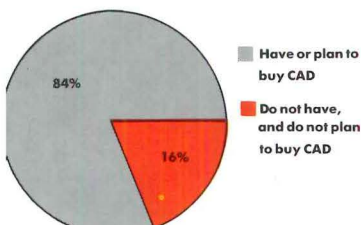
Use of computers (CAD and other systems)



Planned use of computers (CAD and other systems)



Use of CAD



Planned use of CAD  
Use and planned use of computers  
% of total sample).

**"P/A readers confirm that the age of computers has truly arrived," conclude consultants Morrison and Morrison from the results of P/A's fifth reader poll. By now, the architectural firms of 95% of our responding readers either have or plan to acquire some form of computer (Fig. 1).**

As computer consultant Erich Teicholz predicted a few years ago (P/A, May 1985, p. 155), PCs are overwhelmingly popular; 80% of the firms either own or plan to buy them. Even computer-aided drafting and design systems are becoming common: Over half the firms already have a CAD system, and another 32% plan to buy one. So highly detailed recommendations about how to select such a system—as seen, for example, in computer consultant Nick Weingarten's recent Practice article (P/A, March 1987, p. 61)—have become meaningful to a large number of architects.

What is astounding, given their earlier resistance, is how quickly not only the figures but also the attitudes have changed among architects. Only a few short years ago, computers were neither readily affordable nor easily accessible to most architects. And P/A editors, informally questioning the architects they met at that time, found the majority to be skeptical, if not

downright fearful, of computers and their implications in the profession.

### The Sample (Figure 1)

This Poll attracted 928 respondents, far fewer than the 2000+ for our polls on compensation and career satisfaction, but in line with those on liability and on the AIA. Like the latter two, this subject drew responses mainly from readers with more experience and higher positions. The youngest group—although thought to be the most "with-it" in the area of computers—produced the fewest respondents. Otherwise the demographic profile of the 928 readers resembles that of the P/A subscriber list as a whole.

And while a poll of this type does tend to attract responses from those most interested in the subject—as well as energetic dissenters—their message cannot be dismissed: If anywhere near 95% of architectural firms have or plan to acquire computers, the profession has certainly entered the computer age.

### Applications (Figure 2)

Our poll indicates a different priority of computer uses for large versus small firms. While specification preparation is the most important area for computers in smaller firms (1-9), the largest firms (50+) use com-

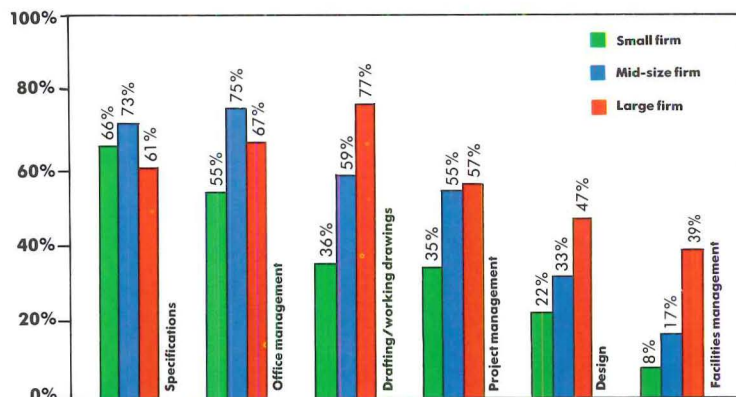
puters heavily for drafting and preparing working drawings, as well as for project and office management. The largest firms also use computers for design and facilities management, areas where smaller firms employ the computer little.

### Attitudes (Figures 3-6)

Why has the picture of computer use among architects changed so dramatically and so quickly? In large part, there is the sense that architectural firms must computerize their operations if they are to be competitive in the future. Over 75% of respondents, in firms of all sizes, feel that this is at least somewhat true (Fig. 3).

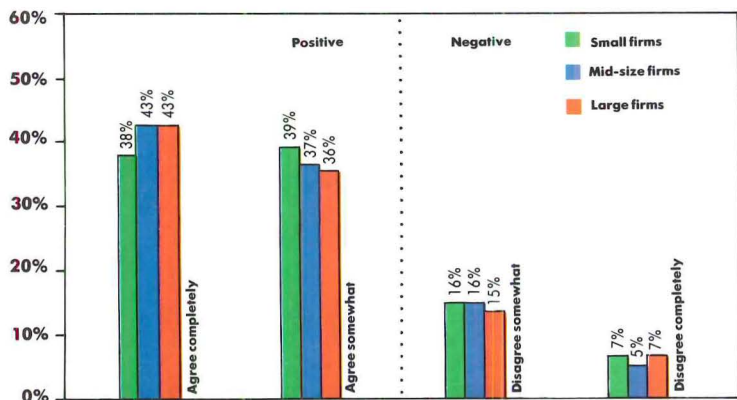
A second factor is the largely satisfactory experience among users in the field. Among those who have computers, 62% indicate strong or fairly strong overall satisfaction with them, and only 11% respond at the low end of the scale (Fig. 4). (A small amount of the "satisfaction," especially on the part of owners, might of course be attributed to vested interest.)

Over half the respondents indicated skepticism about the effective computerization of architectural design (Fig. 5). From this, however, we might deduce a third explanation for the increasing comfort with the presence of the computer. If the computer does not threaten the



2 Applications: "In what areas does your firm currently use computers?"





**3 Attitudes: The competitive edge** "Architectural firms of all sizes will have to computerize their operations if they are to be competitive in the future."

architect's intrinsic talent and skill, then it need not be feared. Its use as a mechanical aid can be easily accepted.

In fact, there is a general sense that computer-aided drafting and design systems will increase productivity. Among current CAD users, an overwhelming 94% agree at least somewhat that this is likely, but even among those who have no computers in their firms, 76% believe CAD improves productivity (Fig. 6).

A closer look at Figures 5 and 6 indicates that familiarity with the computer generally breeds optimism. CAD users—those most familiar with the machines—are the most sanguine about the possibilities, closely followed by all computer users, with non-users being the least impressed.

#### Advantages (Figure 7)

While respondents overwhelmingly feel that computers increase productivity, when specifically questioned they report that this does not mean that the computer necessarily shortens hours spent on a project—less than a third find that it does—but that the quality of work is improved. This is suggested by the advantage they rank highest: increased ability to investigate design options. The validity of this view is borne out by the response from designers

and draftsmen (not broken out in the graph), 64% of whom acknowledged it, as compared with 55% of all respondents.

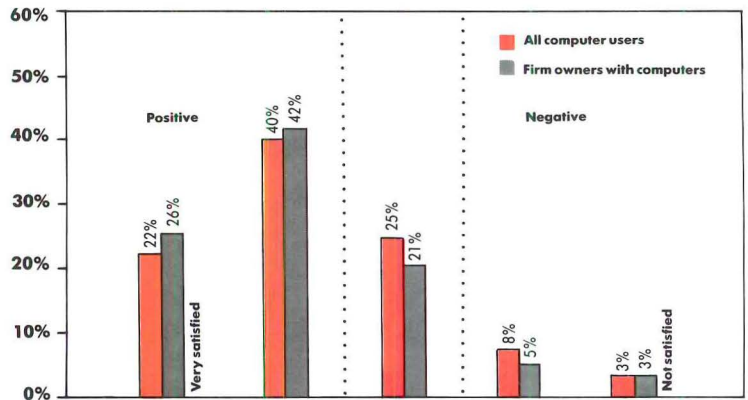
Fewer errors and tighter contract drawings account for the next ranked advantage, followed by quicker project turnaround and better client presentation. While only 24% of those without computers anticipate the latter benefit, 38% of computer users and 40% of CAD users report the computer's assistance in preparing presentations.

#### Concerns (Figure 8)

The major concern about computer systems, on the part of both users and non-users, and especially on the part of owners and principals, is the financial investment required. The extensive training required before computers can be fully used also worries a high percent of architects, while the disruption to the firm as computers are being introduced concerns close to half.

While required changes in management worry only 15% of non-users, users know better; these changes concern 29% of them. And they concern project managers and staff architects (36%) far more than owners (22%) or designers and draftsmen (20%).

Conversely, 33% of non-users are concerned about design creativity being affected, but



**4 Attitudes: Satisfaction** "Overall, how satisfied are you with your firm's computer system(s)?"

users can encourage them slightly; only 26% of them are concerned. It is no surprise that designers and draftsmen are the most worried about this (36%).

A minority of architects are concerned about the possible need to add new staff to operate the systems. Few worry about liability implication and about reduced employment, although again, it comes as little surprise that designers and draftsmen are the most concerned about the latter (21%).

**From these responses, the Morrisons conclude that, "although architects can readily understand the benefits of computers, they still remain concerned about how computers will ultimately affect and change the profession and the operations of their firms."**

#### Staff Effects (Figures 9–11)

While 31% of all respondents agreed at least somewhat that computers will mean a reduction of employment opportunities in architecture (Fig. 9), the experience of computer users indicates that, at least so far, this does not seem to be true (Fig. 10). Only 5% have reduced staff, while the vast majority (74%) have seen little net change, having trained existing staff in the system; 7% have kept a constant number by replacing some staff with computer-trained personnel and

12% have added staff to operate the computers. The most pronounced deviation from these trends has occurred in the largest firms, where 23% have added specialized staff.

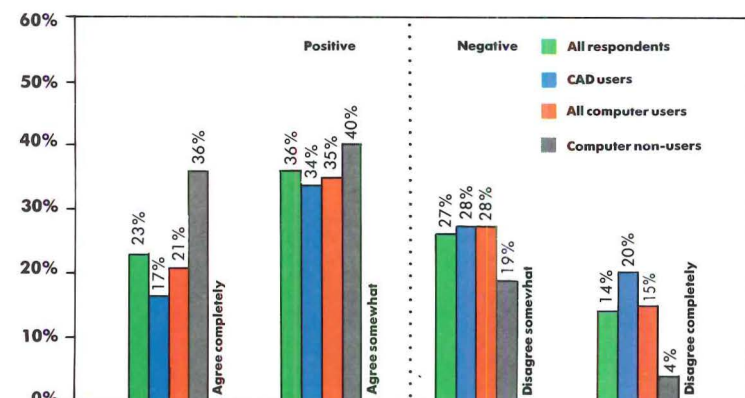
About half the respondents feel that all staff members should be familiar with computers (Fig. 11), while close to one third prefer training those who are interested.

**Owners tend to stress the training of all staff members, which the Morrisons feel may indicate their urgency to keep up with technology and their competitors, but they warn against "force-feeding computer technology."**

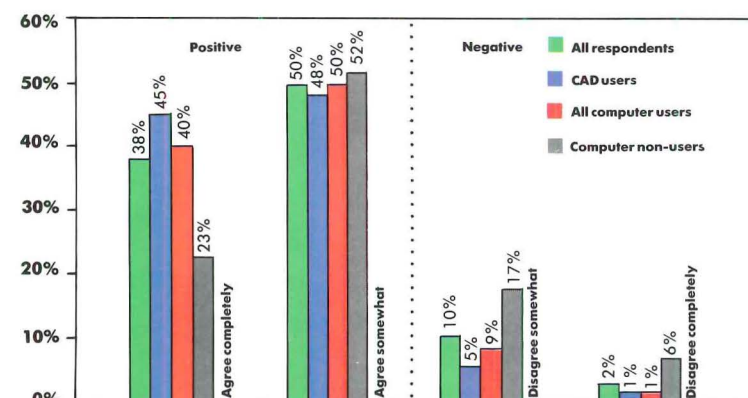
#### Hardware Plus (Figures 12–14)

Vendors take note: According to plans reported by our readers, the strongest area of hardware growth continues to be in PCs—15% still want to buy them. In software growth, CAD is the hot item. 32% want to buy a new CAD system (involving, presumably, hardware purchases as well, much of it PCs), and 29% want to upgrade their current system.

PCs are the machines most prevalent in architectural offices, though mainframes systems with terminals are almost as common in the largest firms, and word processing systems are commonly found in mid- to large-size firms. Most respondents who

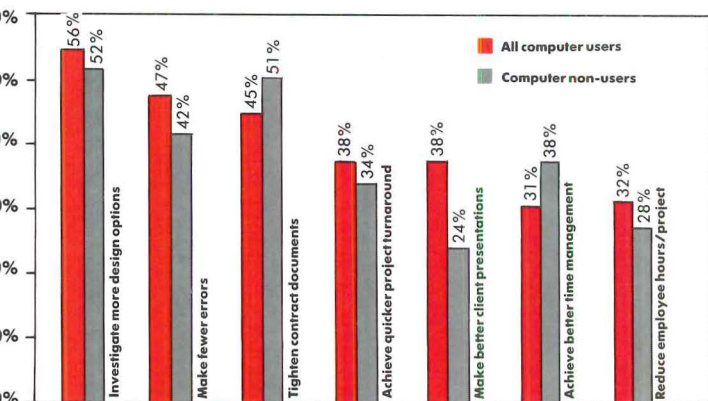


**5 Attitudes: Computerizing Design** "Architectural design is a skill that will never be computerized effectively."

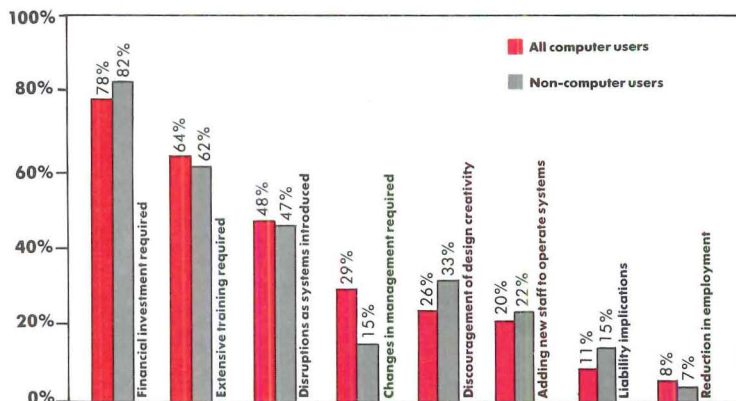


**6 Attitudes: Productivity** "Computer-aided drafting and design systems will increase the productivity of architectural firms."





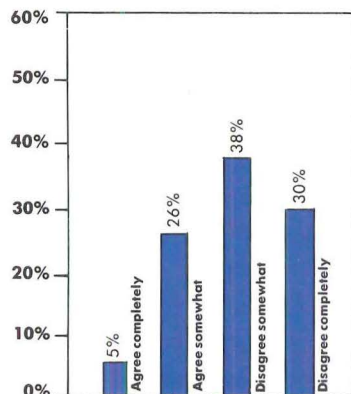
Perceived advantages of computer systems.



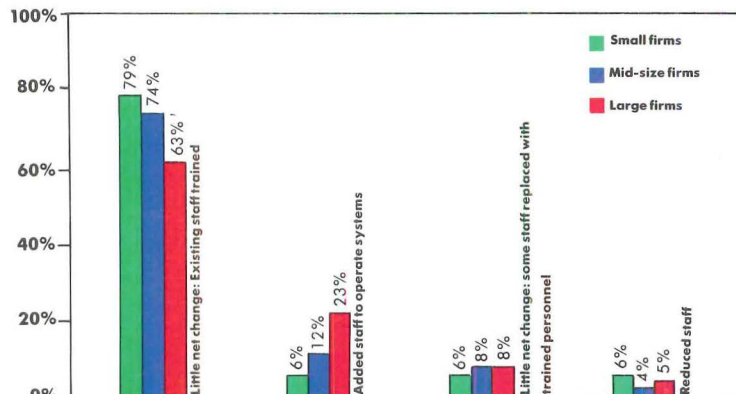
8 Major concerns about computer systems.

already have a CAD system use it for both design and drafting.

Most respondents who have computers report relative acceptance of commercially available software (although the statistics might also reflect architects' comfort—or discomfort—with programming, or with giving time to such an activity). Almost half the computer owners (48%) use purchased software without changing it, slightly fewer (44%) adjust the packages (the reverse figures being true in the case of CAD users alone), and only a few (5%) write programs in house.

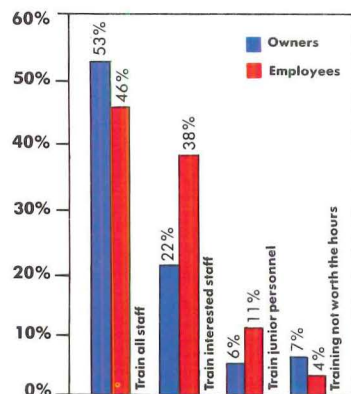


9 Employment opportunities: Predictions "Use of computer systems will reduce employment opportunities in architecture."

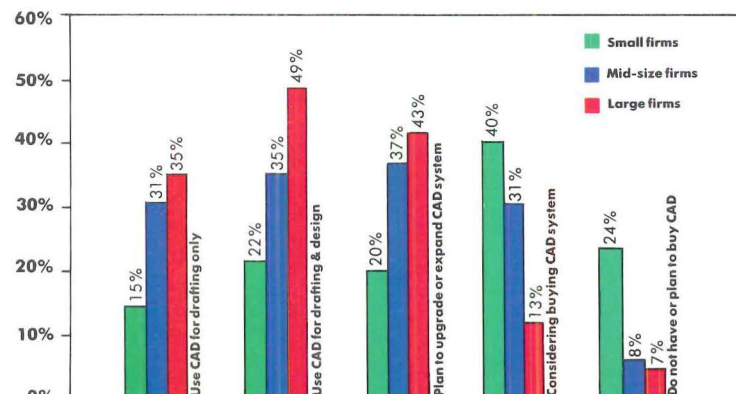


10 Employment opportunities: actual changes "How have the staffing requirements of your firm changed as a result of using computer systems?"

**Conclusion**  
Architects can truly be said to have learned to live with the computer. Not only have they accumbed to competitive pressures to acquire the machines, but they have also, in the process, become relatively comfortable with them. While the majority recognize both the philosophical and practical limitations of the equipment, most who have it probably would not want to do without it, and many might even be called enthusiasts. Susan Doubilet

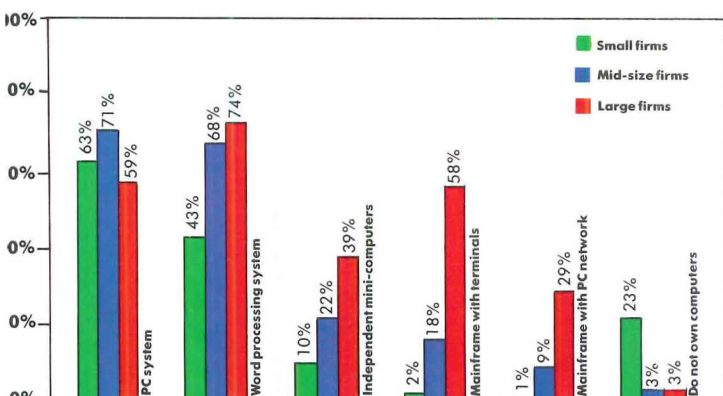


11 Staff training "How do you feel about training staff members on computer systems?"

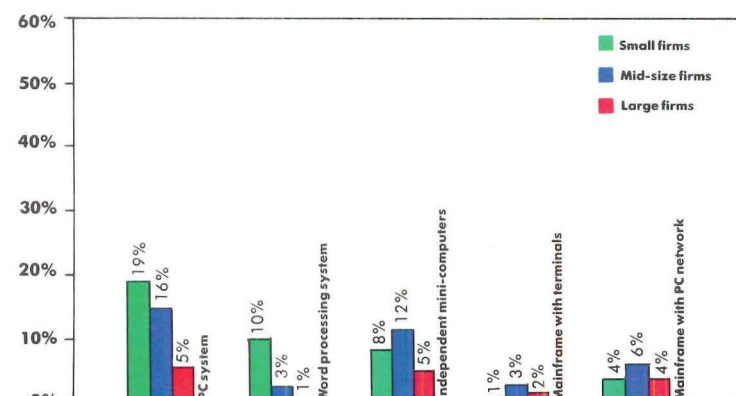


12 CAD: Status "What is your firm's status regarding computer-aided drafting and design systems?"

The next P/A Reader Poll report, on Fees and Encroachment, will appear in the November issue. The questionnaire for that poll is inserted opposite this page.



Computer equipment: Current status "What computer equipment does your firm have?"



14 Computer equipment: Plan "What computer equipment does your firm plan to acquire?"



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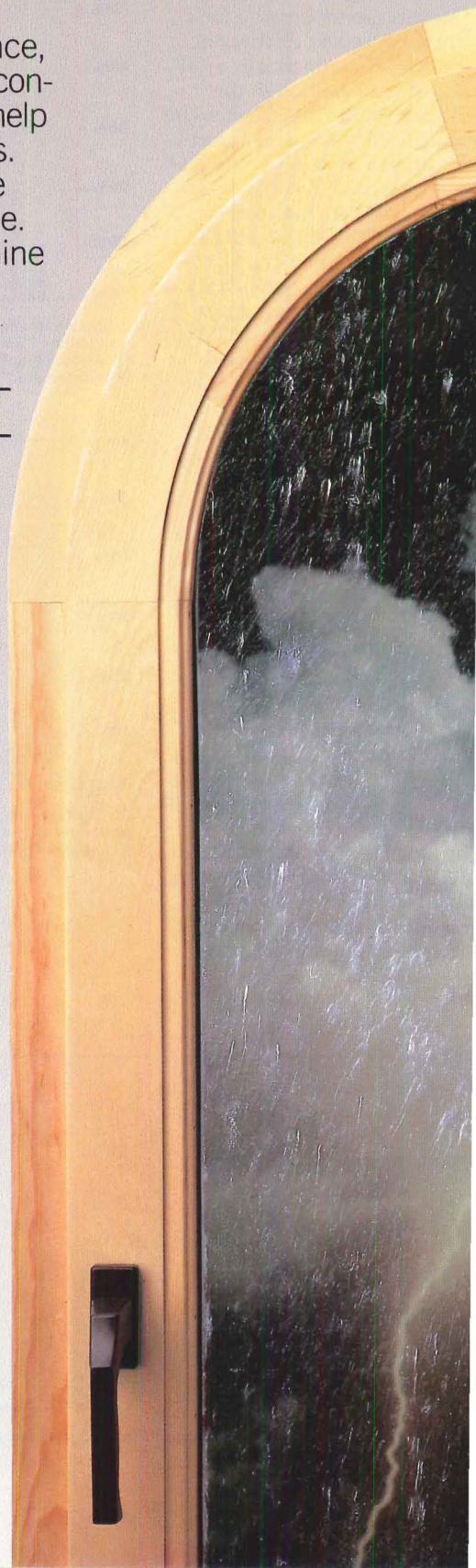
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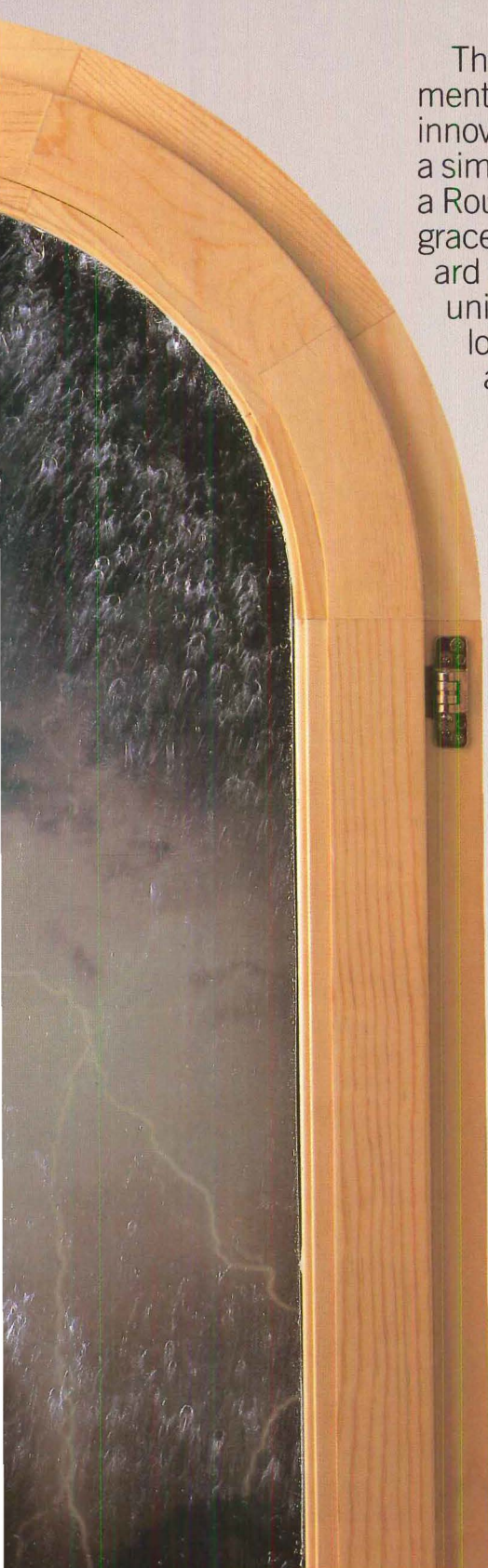
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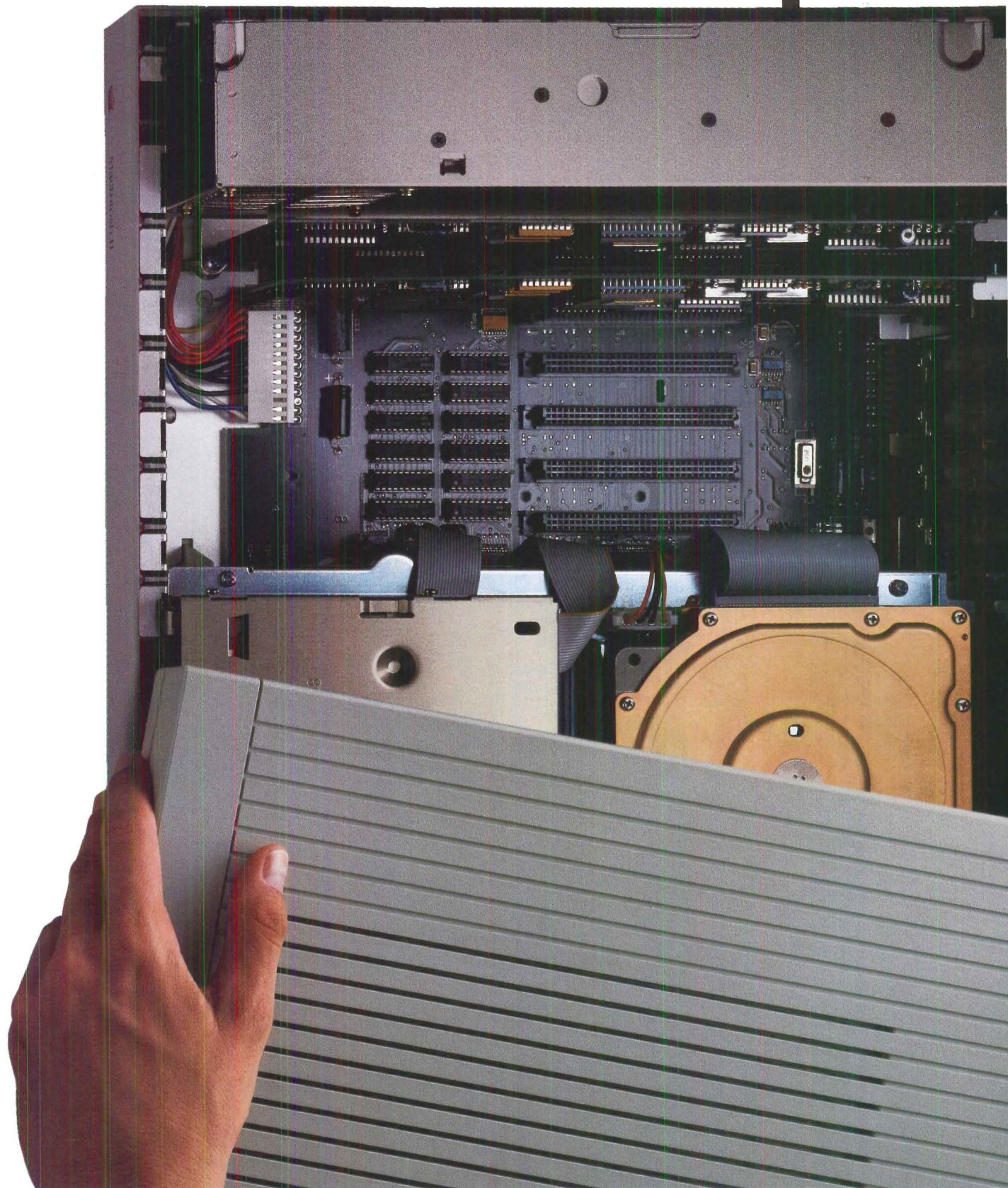
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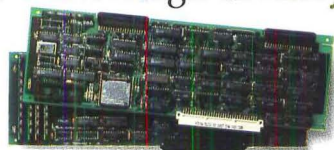
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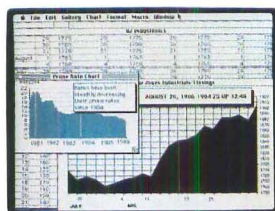
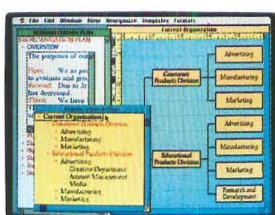
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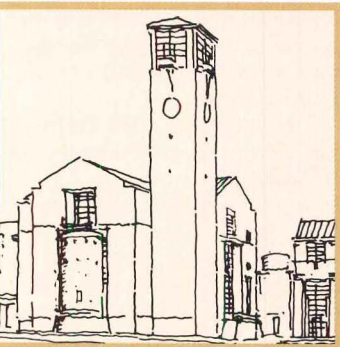
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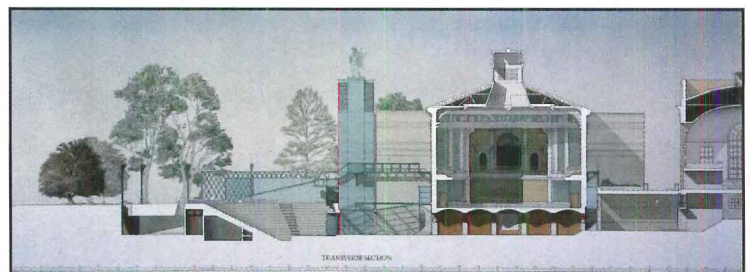
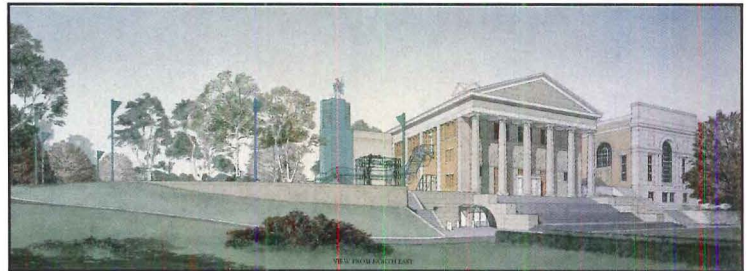
*Tower entry to proposed Carnegie Mellon quad by Dennis & Clark/TAMS.*

## New Plan for Carnegie Mellon

America's older college campuses, long governed by traditional planning principles that emphasized clear spatial definition and strict axial organization, suffered most under the asymmetrical, object-oriented planning ushered in with Modernism. Carnegie Mellon University offers an example. The spatial pattern established in the original quadrangle by Henry Hornbostel had not been followed by succeeding Modernists—a disregard especially obvious in the approach to the campus from Forbes Avenue.

Wanting to create a more inviting entry to the campus from Forbes, the university sponsored a limited competition for a new quadrangle. The jury included Dansk International founder and alumnus Theodore Nierenberg, architects Thomas Beeby, Robert Campbell, Graham Gund, and Dahlen Ritchey, as well as university administrators and students. The invited entrants were the Boston area firms of Koetter, Kim & Associates; Dennis & Clark Associates with TAMS/New England; Jung/Brannen Associates; and Machado & Silvetti Associates; the Pittsburgh firm Damianos & Associates with GBQC Associates

*(continued on page 26)*



Peter Margonelli

*Viñoly's winning Snug Harbor Music Hall proposal, entrance façade and section.*

## Rafael Viñoly Wins Snug Harbor Competition

In one of the few national design competitions to stress historic preservation and adaptive reuse, Rafael Viñoly Architects have won the commission for the \$12 million rehabilitation of the Music Hall at Snug Harbor on Staten Island in New York.

The original five-building complex of Snug Harbor, a former privately endowed home for retired sailors, was built in the 1830s in Greek Revival style after designs of Minard LaFever. The 80-acre site is listed on the National Register and is also a designated New York City Landmark.

In renovating the monumental Music Hall, which is Greek Revival outside and Beaux Arts inside, Viñoly adds 19,750 square feet of new space to 11,820 square feet of restored space in the 850-seat proscenium house. The Hall, the second oldest theater (after Carnegie Hall) in New York, was designed as a state-of-the-art facility in 1892

*(continued on page 28)*



Ann Carper

**AIA Convention Lego contest, attended by Tom Grondona (above) and other architects. For convention review, plus NEOCON and A/E/C, see page 33.**

## Pike Place Market Wins Bruner Award

Seattle's Pike Place Market, a renovated turn-of-the-century farmer's market, has been awarded the first Rudy Bruner Award for Excellence in the Urban Environment.

Established by the Bruner Foundation of New York to "bring recognition to excellent urban places and encourage learning about their inevitably complex creation," the Bruner Award carries a \$20,000 prize. This year's recipient, the Market Foundation, will use the funds to further programs of its health clinic, childcare center, food-

*(continued on page 28)*



## Pencil Points

**Dagit/Saylor Architects**, Philadelphia, have been selected as architects for the new headquarters of the Pennsylvania Ballet, which will occupy the former Potamkin Chevrolet building in South Philadelphia.

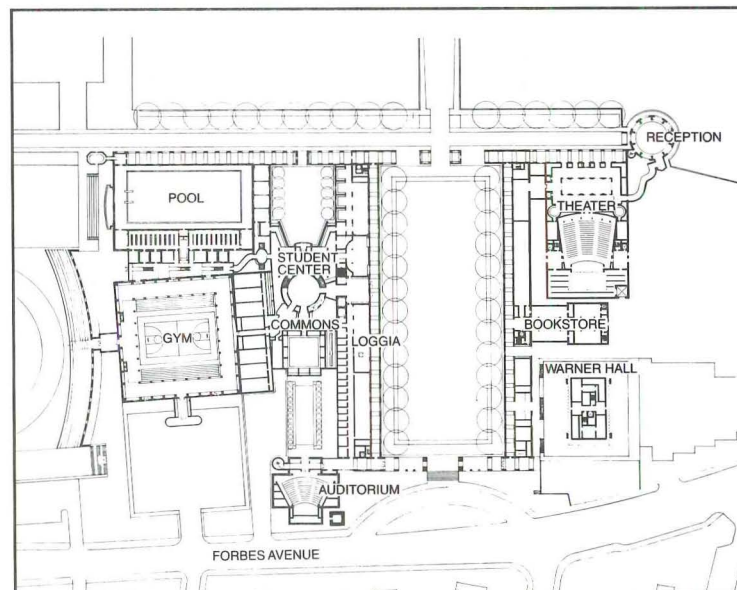
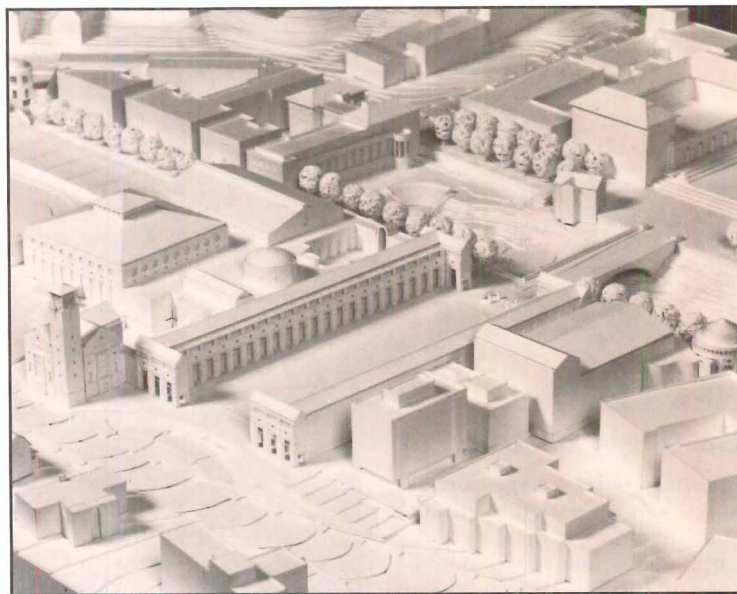
The New York City waterfront, from Battery Park City to 44th St., is the subject of an international competition for ideas sponsored by the Municipal Arts Society, with support from the National Endowment for the Arts. The jury, composed of architects Henry Cobb and Frank Gehry, landscape architects Martha Schwartz and Nicholas Quinnell, Mayor Joseph Riley of Charleston, S.C., artist Red Grooms, and Manhattan Borough President David Dinkins, will award \$15,000 in prizes. See Calendar, page 47, for registration details.

August 31 is the deadline for submissions to a competition for designs commemorating the 1989 Bicentenary of the French Revolution. The sponsors ask only that the projects be situated in public, urban locations, not necessarily limited to French territory. The 27-member jury includes architect Hans Hollein, engineer Peter Rice, and curator Richard Koshalek of the Los Angeles Museum of Contemporary Art. See Calendar, page 47, for details.

The University of Houston has received a \$3 million gift from the Japan Shipbuilding Industry Foundation to establish the Sasakawa International Center for Space Architecture.

Seven architects were singled out in the June issue of *Fortune* magazine as "Architects for the 1990s." These "influential and affluent but rarely rich" figures are "Bernardo Fort-Brescia and Laurinda Spear: the Iconoclasts"; "David Childs, the Classicist"; "Helmut Jahn: Flash and Fashion"; "Ralph Johnson: the Regionalist"; "William Pedersen: the Post Modernist"; and "Robert A.M. Stern: the Scholar."

Andrew Batey has been named dean of the School of Architectural Studies at the California College of Arts and Crafts, San Francisco campus.



*Dennis & Clark's proposal for Carnegie-Mellon campus, top and site plan.*

**Carnegie** (continued from page 25) of Philadelphia; and the New York office of Skidmore, Owings & Merrill. Dennis & Clark with TAMS/New England won the competition, with honorable mentions going to Koetter, Kim and the Damianos/GBQC team.

A quadrangle bracketed by two narrow, colonnaded buildings forms the heart of the Dennis & Clark scheme. The new quadrangle defines a cross-axis with the Hornbostel quad and is connected to it by a bridge over a ravine. A cross-shaped auditorium and ballroom, emphasized with a corner tower, marks the quadrangle's entry on Forbes Avenue. The two bracket-shaped buildings define the main outdoor space. One also serves as a kind of false front, concealing an unsympathetic modern building—Warner Hall—and the bulky forms of a new performing arts center and bookstore, while the other serves as the edge of a densely packed cluster of

facilities, including a student center, gymnasium, and pool, that surround a domed meeting space and court reminiscent of Dennis & Clark's competition-winning design for the art museum at the University of California at Santa Barbara.

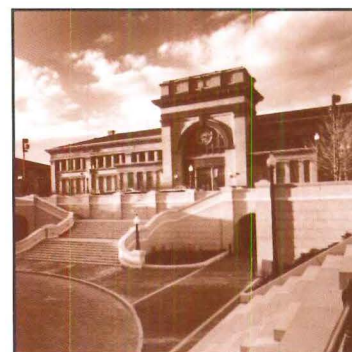
It's significant that all of the competition schemes attempted, with varying degrees of success, to return to the pre-Modern tradition of campus planning. More than just contextual responses to the nearby Hornbostel quadrangle, these schemes show how thoroughly (and quietly) the profession has embraced those planning principles even as it has largely (and loudly) rejected the historicizing aesthetics of Post-Modern architecture. That embrace bodes well, not just for Carnegie Mellon, but for every college campus set spatially adrift in the free plan of Modernism. **Thomas Fisher**

## Tucker Awards for Stone Buildings

Nine projects in six categories have received 1987 Tucker Awards from the Building Stone Institute. The three-member jury of architects, Richard Bergmann, Richard Bergmann Architects, New Canaan, Conn.; Howard N. Horii, The Grad Partnership, Newark, N.J.; and Stephen P. King, Swanke Hayden Connell Architects, New York, judged entries for their excellence in concept, design, and construction, and use of natural stone.

They selected 1001 Pennsylvania Avenue, Washington, D.C. (Hartman-Cox, architects, Washington); 500 Park Tower, New York (James Stewart Polshek & Partners, New York); and Alpine Square, Walnut Creek, Calif. (Kaplan/McLaughlin/Diaz, San Francisco) in the category of non-residential building. A vacation residence, Penobscot Bay, Maine (Peter Forbes & Associates, Boston) won for residential design. Ritter Park Playground, Huntington, W.Va. (Bohlin Powell Larkin Cywinski, Philadelphia) and the Grand Stairway, Kennedy Plaza, Providence, R.I. (Albert Veri & Associates, Providence) won for landscape design, and the Boston Design Center (Earl R. Flansburgh & Associates, Boston) won for renovation.

Finally, the Lincoln Memorial, Washington, D.C. (Henry Bacon, architect) won in the category of a stone structure completed at least 40 years ago and still in use today.

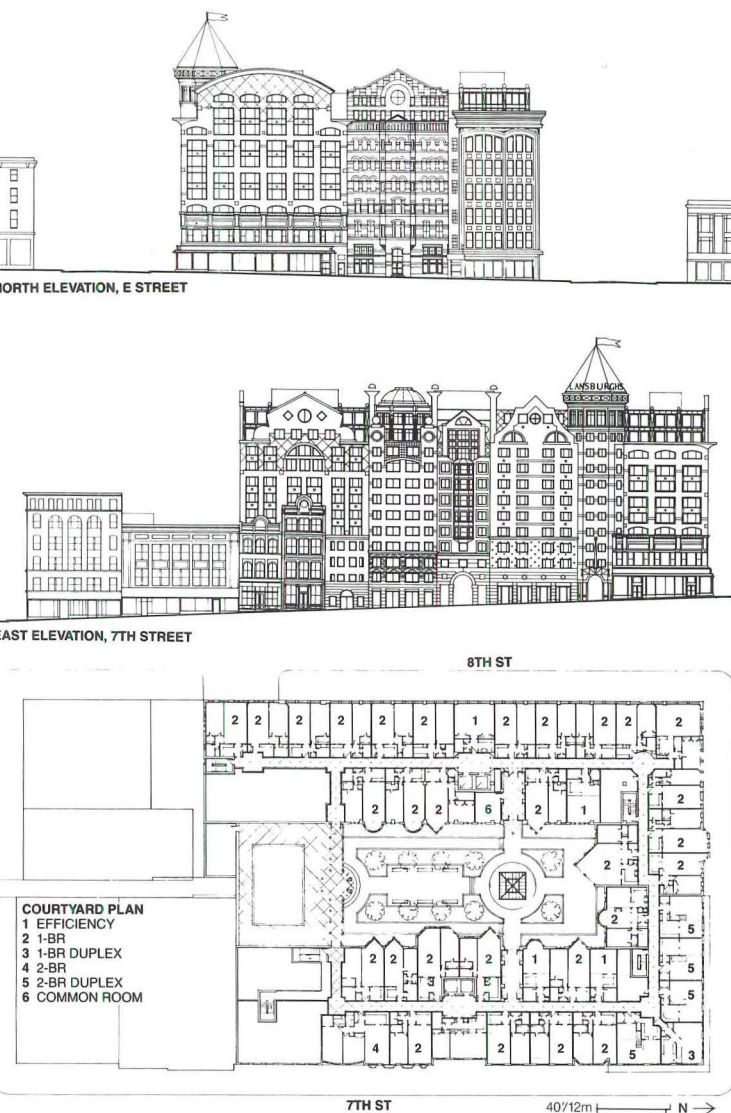


*Grand Stairway, Kennedy Plaza.*



*1001 Pennsylvania Avenue.*





Above: Graham Gund's Landsburgh proposal. Former department store seen at right in north elevation.

## PADC Choice for Lansburgh Site

The Pennsylvania Avenue Development Corporation has selected the Gunwyn Company and Graham Gund Architects of Cambridge, Mass., as developers and architects for a large mixed-use project incorporating the vacant Lansburgh's department store at 8th and E Streets on the eastern edge of what is known as Washington's old downtown.

The choice reinforces PADC's vowed commitment to providing housing in the area, now a ghost town at night. The Gund scheme will have 369 residential units, nearly a third of the 1200 units PADC hopes to provide in the area, and more than that offered in any of the other five proposals for the site. (The other architects competing were Keyes London Florance; Skidmore, Owings & Merrill; Kohn Pederen Fox; David M. Schwartz; and Halom Baranes.)

If Washington has a neighborhood known to be frequented by artists and musicians, this is it; or years the terra-cotta-clad

Lansburgh building served as a funky sort of community arts center. Its surrounding neighbors on the site—also a part of the development scheme—had been taken over by galleries, studios, and night clubs.

Based on economic projects accompanying the winning scheme, PADC has voiced strong optimism about prospects for attracting additional private residential development to this part of the central city. PADC has come under fire in the past for failing to encourage more than new speculative office and hotel space.

Through its use of materials and details, the Gund design will maintain and accentuate the individuality and integrity of the fine period architecture that had to be incorporated with new elements of the project. This is of course good and necessary. But the main reason to welcome PADC's decision is the one they gave as their rationale: When completed in 1991, this complex will be the biggest apartment building built in Washington in recent memory. **Thomas Vonier** ■

## Boston Exports: Encore Awards

Five Boston-based firms have been honored by the Boston Society of Architects for projects outside the Boston metropolitan area. Winners in the 1987 Boston Export Awards program, now in its second year, were selected by juror/architects Doris Cole, Jane Weinzapfel, and John Wilson.

Three firms received awards. Cambridge Seven Associates was honored for the Nautilus Submarine Library & Museum in Groton, Conn., commended for its "machine aesthetic." The museum "succeeds superbly as a memorial without being somber," said the jurors. Jeremiah Eck's Waxman House on Block Island, R.I., was praised as "a simple, dignified vacation house (which) avoids clichés." Graham Gund Architects were commended for the Connecticut College Humanities Center in New London, Conn., "a very fine renovation . . . whimsical, delicate and strong . . . refined without being fussy."

Citations were awarded to Architectural Resources of Cambridge for the Student Dormitory at Amherst College, Amherst, Mass., and Crissman & Solomon for the Fleming Museum, University of Vermont, Burlington.

**Bruner** (continued from page 25) bank, and senior citizens' center.

Pike Place Market was chosen from among five finalists, selected from 81 entries in 25 states. Other finalists included the Philadelphia Health Services Center on Fairmount Ave.; the Casa Rita, a temporary residence for homeless women and children in New York; St. Francis Square, a moderate income housing development in San Francisco; and Quality Hill, a revitalized historic district in Kansas City.

The multidisciplinary jury included Vernon George of Hammer, Siler, George Associates, Economic and Development Consultants, Silver Spring, Md.; Cressworth C. Lander, Director of the Department of Human and Community Development, Tucson; Mayor George Latimer of Saint Paul, Minn.; architect Theodore Liebman of the Liebman Melting Partnership, New York; Clare Cooper Marcus, Professor of Architecture and Landscape Architecture, University of California, Berkeley; and William H. Whyte, author of *The Social Life of Small Urban Spaces*.

"The deciding factor in the choice of Pike Place was its avoidance of Chocolate Chipification," says Foundation treasurer Simeon Bruner. "Pike Place Market is reality, not Disneyland."

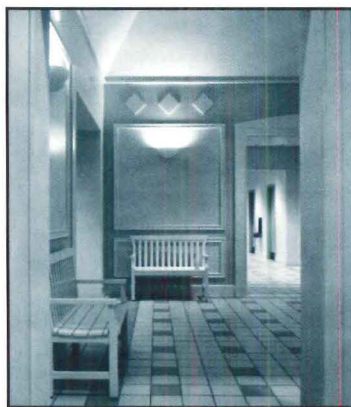
The Award is intended as a teaching tool, examining the "nature of successful urban change." The Foundation will publish a book on winners and finalists at the end of each two-year award cycle. The next call for entries will be issued in the summer of 1988, with entries due by Thanksgiving.

## Mario Bellini at MoMA

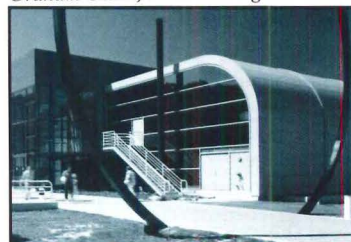
Like many one-man shows, "Mario Bellini: Designer" at the Museum of Modern Art in New York sacrifices context to concentration. The show portrays this Italian furniture and industrial designer through the objects he has designed over the past 25 years, while merely sketching in the history of Italian and international design that would explain why he deserves such a show in the first place.

Architects and designers, of course, need no such explanation. For them, the show is an exercise in recognition, filled with familiar and admired products from Bellini's "Area" lamps (Artemide) with their folded

(continued on page 28)



Graham Gund, Conn. College Center.



Cambridge Seven, Nautilus Library.



Jeremiah Eck, Waxman House.

Steve Rosenthal

Nick Wheeler

Paul Ferrino



**Bellini** (continued from page 27)

paper effect, to his zippered leather Cab chair series (Cassina), to the portable Praxis typewriter (Olivetti).

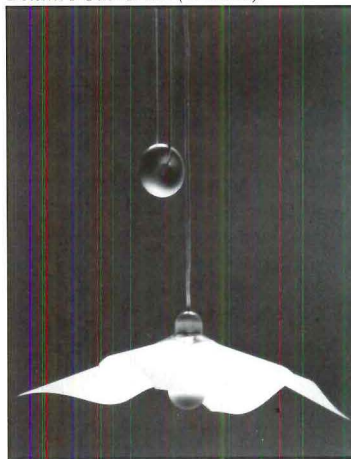
The handsome exhibition, designed by Bellini himself, separates the chronological furniture display from industrial design items by a long colonnade lined with drawings. Twenty years worth of Olivetti prototypes in particular provide a fascinating case history of the changing relationship between technology and design. Bellini has long argued that electronic miniaturization releases the designer from the tyranny of "form follows function," and that the shape of the "box" can now reflect user needs, not mechanical necessities. His elegant, tactile designs support this contention, as does the display itself.

The products surface again in a catalog by curator Cara McCarty and in a slide show staged in MoMA's Education Center, where they mix with fascinating but maddeningly unidentified architectural drawings or models. Bellini was trained as an architect and has begun recently to do more architectural work; yet this important aspect of his multifaceted career remains unexplored. Thus the portrait of this modern-day Renaissance man, who last year added the editorship of *Domus* to his many other accomplishments, is finally incomplete.

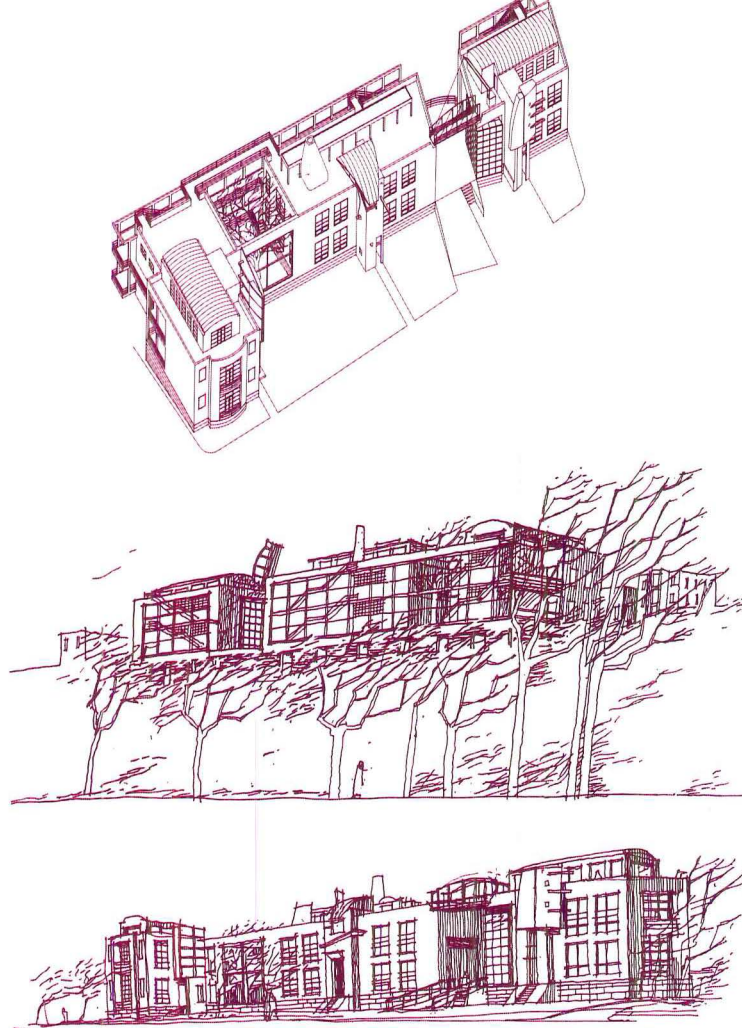
**Daralice D. Boles**



Bellini's Cab Chair (Cassina).



Bellini's Area Lamp (Artemide).



Mission Hill artists housing, axonometric, rear and front elevations.

## New Orleans Firm Wins Boston Contest

Eskew Vogt Salvato & Filson of New Orleans have won a competition to design artists' housing in Boston's Mission Hill neighborhood.

The Artists Live/Work Space National Design Competition was sponsored jointly by Vision, Inc., the Center for Environmental Design and Education, and the Artists Foundation, in cooperation with the City of Boston. The program, which called for the design of a basic module of four units costing not more than \$67,500 each and expandable to a maximum of 12 units, was developed for vacant land owned by the City of Boston.

The problem of creating low-cost housing for artists, said the competition sponsors, has been exacerbated by tax incentives that encourage the rehabilitation of older commercial buildings, once havens for artists, and by a revived interest in urban living. A recent study by the Friends of Boston Art indicates that 46 percent of the 7000 visual artists now in Boston are facing displacement from their studios in the first half of 1987.

"We can reach the goal of providing low-cost artist housing," said competition coordinator

Daniel C. Corrigan, "provided the land can be acquired at little or no cost, that interest rates remain low, and that artists can use their own labor to finish their units. A reliance on in-kind contributions is also an important factor."

Also important to the sponsors, and a key reason for the selection of the winning scheme, is the integration of this project into its neighborhood. Architects Eskew Vogt Salvato & Filson stress the "point-counterpoint" relationship established in their site plan, designing a street façade in keeping with the neighborhood while turning the rear wall into a communal "canvas" for changing art on the skyline.

The twelve units, while broken down into three smaller buildings to match the scale of surrounding residential structures, are connected by a series of communal terraces and rooftop work areas. The units themselves are designed for flexibility.

The sponsors are producing a catalog on the winning entry and ten others, with funding from the Bank of Boston, a major supporter of the competition. The winning team will prepare design and contract documents for the project, in conjunction with Vision Inc. and the Artists Foundation.

**Viñoly** (continued from page 25)

by Robert Gibson.

Viñoly's scheme, shortlisted with five other submissions from 45 entries, "carefully and precisely expanded the stage and back-of-house facilities . . . without unduly compromising its interior or exterior," said jury chairman James Rossant. "It remained respectful to the character of the old building and to its constructional fabric without resorting to historicizing architecture," he added.

In Viñoly's scheme, the grade in front of the building is lowered, thus exposing a magnificent Guastavino-vaulted basement below the entry. A new, monumental flight of stairs is then added above, which allows a new porte-cochère beneath leading to a protected entry in the old basement. The rear wall of the Hall is pushed back, and a new wider wing of back-stage and service facilities is sandwiched between it and the Hall. At the east, an outdoor amphitheater is added, which also functions, below, as dressing rooms and as the major portion of a new underground circulation route throughout the entire complex.

In addition to Rossant, other jurors were James Marston Fitch, Charles W. Moore, Raphael Moneo, Susana Torre, Judith Daykin, Alice Diamond, and Alan Weissglass. The other finalists were James Stewart Polshek & Partners, Second Award; Notter, Feingold & Alexander, Inc., Third Award; and unpremiated competitors Allan Greenberg Architects; Robert Meadows P.C. with Robert A.M. Stern; and Jan Hird Pokorny Architects. All six final schemes will be exhibited at the Municipal Arts Society in New York from August 31 to September 6 and from September 12 to October 18 at The Snug Harbor Gallery.

**David Morton**

## Thomas Fisher Executive Editor

Thomas R. Fisher has been appointed Executive Editor of *Progressive Architecture*. He replaces David A. Morton, who had served on the P/A staff for 17 years prior to joining Rizzoli International Publications last month as Senior Editor for architecture.

Fisher joined P/A in 1982 as Associate Editor in charge of Technics and was promoted to Senior Editor in 1984. He holds degrees from Cornell in architecture and Case Western Reserve in architectural history.



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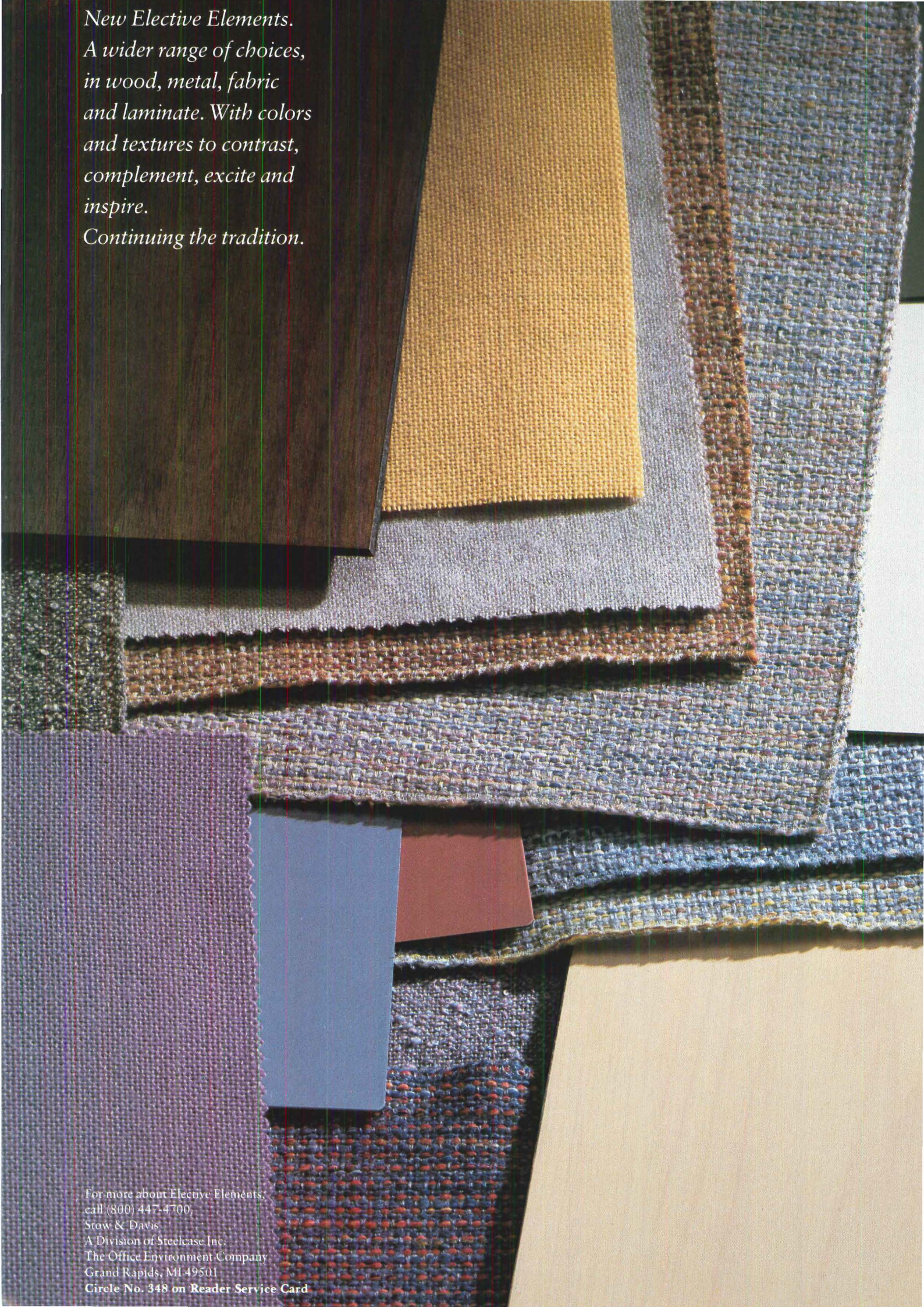
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## AIA 1987: No Fun in the Sun

- It was characteristic of this year's American Institute of Architects Convention that the Convocation Dinner—traditionally the dullest event on the program—should prove to be the highlight of an otherwise lackluster weekend in muggy Orlando, Fla. Speaker John Hartray of Chicago kept his black-tie audience in stitches with a stand-up routine that we won't even attempt to highlight, but he also nailed this convention's coffin shut with the epitaph, "There's nothing going on here!"

His criticism, voiced midway through the four-day event (June 19–22), echoed down the halls of the Orange County Convention/Civic Center, where audiences alternately froze in arctic air conditioning or baked beneath video lights. Attendance, however, was up, totaling 6657 (2060 members) or approximately 400 more than last year.

Typically, the biggest issue of the business session—the proposed intern category for membership—disintegrated into a naming game. Designed to distinguish "interns" from "associates," the measure was defeated. A potentially more controversial proposal to rewrite formation rules for AIA chapters was tabled for study.

In other AIA business, Houston architect Benjamin Brewer, Jr., was elected first vice president/president elect. Sylvester Damianos, Pittsburgh; Norman L. Koonce, Bogalusa, La.; and John M. Laping, Buffalo, were elected vice presidents, and Thomas J. Eyerman was elected treasurer.

### New Practice Network

The big news at this convention was buried in a Management Breakfast convened on Sunday morning. There the AIA outlined a new Practice Development Network, cosponsored by the University of Pennsylvania's Center for Professional Development in conjunction with management consultant The Cox

Group. The Network will administer three "quality assurance" programs: acting as matchmaker for sister firms in separate cities, organizing more formal roundtables for six to eight noncompeting firms, and—in the most ambitious program—shaping Development Clinics. The first of these, scheduled for October 1987, will tackle increasing project productivity and ownership transitions.

A related program also under way is AIA's new Peer Review Program, based on that organized by the American Consulting Engineers Council. (For more information on all of these programs, contact J. Franklin at AIA at 202 626-7530).

### Miami Vice and Mickey Mouse

The theme sessions, packaged under the alliterative title "Fact, Future and Fantasy," proved a mixed bag. Michael Mann, "producer and creator" of the television series "Miami Vice," ran an overly lengthy series of clips from his movies, music videos, and television episodes to illustrate the point that "film architecture is no longer a passive backdrop but active in the drama itself." The most startling example for this audience of architects came from his movie *Manhunter*, in which Mann transformed Richard Meier's High Museum in Atlanta into a hospital for the criminally insane.

Peter Rummell of the Disney Development Company presented the company concept of "entertainment architecture," derived from theme park development. Examples, which Disney would not release for publication, included an executive office complex in Burbank by Michael Graves, complete with a colonnade in the order of the Seven Dwarfs, and a more "straight" yellow and blue office building by Cesar Pelli.

Balancing these entertainers were real-world representatives Pat Choate, an economist and last minute replacement for the scheduled speaker, the late Walter Heller, and terrorist expert Brian Jenkins.

Other sessions, while filled with well-known figures, proved unaccountably dull. Michael Graves, William Pedersen, Thomas Payette and Robert Venturi, Antoine Predock, and Fay Jones—all winners of 1987 Honor Awards—and jurors Harry Cobb, Rebecca Binder, and Robert Stern packed a session on design case studies chaired by a tired Robert Campbell, critic of the *Boston Globe*. And a whole host of foreign architects, invited to Orlando to accept honorary fellowships from the AIA, traded platitudes on architectural education instead of presenting the work for which they presumably were selected.

### Failed Magic

The final theme session brought back Philip Johnson in an attempt, said AIA President Donald Hackl, to recreate the "magic" of his 1978 speech at the Dallas Convention. The idea was an odd one, as Johnson himself pointed out: The battle raging then between Modernism and Post-Modernism is now old news. "We start all designs as functionalists and end wherever," remarked the 80-year-old architect. His parting homily: "learn to sell, socialize, make speeches at AIA."

It was left to the habitually sour Paul Gapp, critic at the *Chicago Tribune* and one of four writers to join Johnson in a post-speech discussion, to point out the pernicious effects of Post-Modernism, which, he said, has "trickled down into the hands of less and less competent architects . . . hacks trading on Post-Modernism and trying to become superstars." *New York Times* critic Paul Goldberger, too, took issue with the Post-Modern penchant for "foreground" buildings that do not, he said, make for comfortable cities. Johnson, as always, had the last word: "Tell that," he said, "to Gerry Hines," the developer associated with high-profile Post-Modern designs by Johnson and others.

**Daralice D. Boles**

(continued on page 34)



AIA speakers, top to bottom: Michael Mann, Pat Choate, Peter Rummell, and Philip Johnson and associate John Hartray who introduced him.





Brickell's Torca chair.

## NEOCON 19: Who Bought Whom

At NEOCON 19, the big news wasn't furniture, but rather mergers and acquisitions. The loudest buzz around Chicago's Merchandise Mart was about Steelcase, which announced its acquisition of Brayton International, the North Carolina manufacturer. At the same time, Vecta, the Texas company owned by Steelcase, purchased Beylerian Ltd., the New York producer and distributor.

And that wasn't all. Allsteel announced that it has been acquired by Feltex International, a New Zealand producer of office furniture, carpeting, and building products. Knoll International has bought Smokador, a well-known maker of office accessories. And Herman Miller has acquired exclusive U.S. distribution rights to B&B Italia's line. These (and earlier) acquisitions made for some king-sized showrooms, departmentalized like mini-marts in themselves.

Herman Miller also made news this NEOCON with its Office Pavilion, a new breed of independent dealer that will carry only products of Herman Miller and a half-dozen affiliates—who together will offer everything from workstations to ashtrays—to offer one-stop shopping. In its Mart showroom, Miller introduced the elegant Portfolio line (photo below) of freestanding desks and casegoods designed by Tom Newhouse. Ergonomic chairs

continued to appear, most notably at Haworth (Warren Snodgrass's Catalyst chair) and Kimball (the German-designed Connex). High-end modular seating was featured at SunarHauserman, designed by Robert Kleinschmidt, and at CorryHiebert, by John Rizzi. New polyester furniture finishes in crackle and granite textures were seen at Cumberland/I.M. Rosen, Jack Lenor Larsen, and Brickell Associates, which also introduced wood chairs by Ward Bennett (photo above).

Two of the nicest upholstered chairs were Brian Kane's Belvedere at Metropolitan and the Noble chair at Donghia, both in welting leather. Stendig was showing much of French designer Andrée Putman's line, which it is now distributing, and British designer Rodney Kinsman's Zipp conference table was a highlight at Davis Furniture. Knoll took a case study approach to showroom design this year, presenting partial re-creations of some of its recent notable corporate installations. Bernhardt made another big splash with its Opus seating (see New Products, p. 129) in its 1986 Michael Vanderbyl-designed showroom; that graphic designer, fresh from the pages of *Time*, also designed HBF's white-columned space.

Among the most innovative products technically was Harter's Frostlucet office system panel, in which encapsulated liquid crystals are electronically controlled to turn transparent glass opaque, and vice versa.

As always at NEOCON, there was a full schedule of seminars. At the Chicago Architecture Awards, presented to Denise Scott Brown, Leon Krier, and Harry Weese, keynote speaker Paul Goldberger of *The New York Times* criticized "trickle-down" Post-Modernism, and called for a "more sensuous architecture."

Pilar Viladas

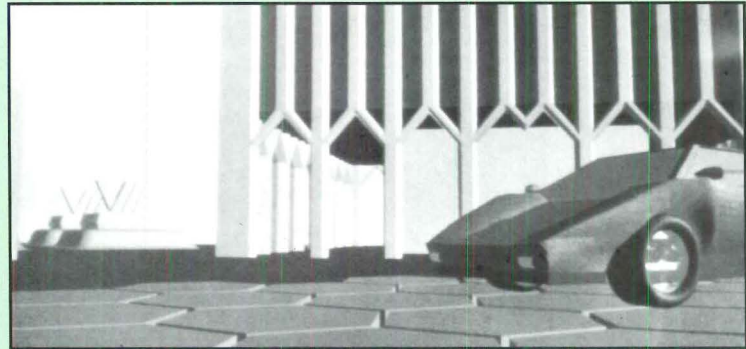


Image from Apple Mac III/Supernac.

## Computer Show Expands

A/E/C Systems '87, which this year incorporated a group of related shows (Facilities, Intelibuild, Reprographics, and AutoCadd Expo) under the umbrella name DesCon, had more exhibitor booths and more attendees than in former years. Booths numbered 412 as compared with 353 for A/E/C Systems '86, and, according to the show's organizers, the 23,400 attendees on the first day alone exceeded by 4000 the total number at last year's show.

Personal computers were highly prominent and attracted a great deal of interest, as they did in 1986. Autodesk and Versacod exhibits both incorporated numerous third-party software companies with Autodesk's empire appearing particularly vast and its booth's exceptionally well attended. During the show Autodesk announced the sale of its 100,000th AutoCAD systems.

Other micro-computer vendors—IBM and Apple, for example—made news as well. Apple attracted many visitors and was, in fact, the most talked-about new entry in the show. This is not surprising as its Macintosh is already popular among architects, a fact, made evident at the standing-room-only Apple Macintosh Forum organized by Fred Stitt. IBM also captured attendee interest by announcing its intention to pursue joint product development with architects Skidmore, Owings & Merrill.

As at last year's event, major vendors—McDonnell Douglas, for example—aimed to capture first-time buyers by offering PC-based products that can be expanded as the buyer's needs grow, with more powerful offerings from the same company. Apollo Computers, appearing for the first time at the show, reassured visitors that PC-based software runs on their mini-computers with a PC-board added.

Among the new introductions by major vendors of software

was Intergraph's Master Architect, a system that promises to relate database and CAD functions from the very early design phases on.

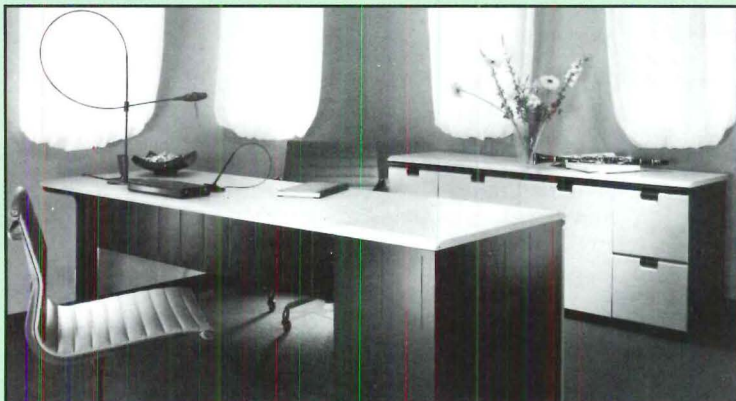
The larger vendors were also demonstrating that more powerful hardware (VAX and Apollo Workstations, for example) is becoming evermore affordable. And, in the opinion of several independent consultants attending the show, improvements in hardware are outstripping software development at this time.

Software aimed at building types represents one specialized growth direction. Graphic Horizon's MediCADD was one such system introduced at the show. Developed for healthcare facility designers and planners, it incorporates a reference library of medical spaces and equipment symbols as well as an expert system for checking codes.

Electronic catalogs drew considerable interest. Sweets, for example, ran a demonstration model of the first phase of their electronic catalog. This, however, will not be available until 1989. Some companies at the show (Anderson, Pella, and Marvin Windows among them) apparently are not willing to wait until then and are offering their own free electronic catalogs. One Japanese company represented in the United States by the Boston Tokyo Group, showed an electronic catalog, in use for a few years in Japan, that allows architects to call up image and technical information about products on the computer screen, using laser disks.

Seminars and tutorials were for the most part well attended. Those providing specific, practical information about present and future products and applications attracted more interest than did general or philosophical talks. This seems to indicate a familiarity with computers and a growing sophistication among the architects and related professionals at the show.

A/E/C Systems '88 will take place in Chicago on May 2-5, 1988. Susan Doubilet, Tom Fisher



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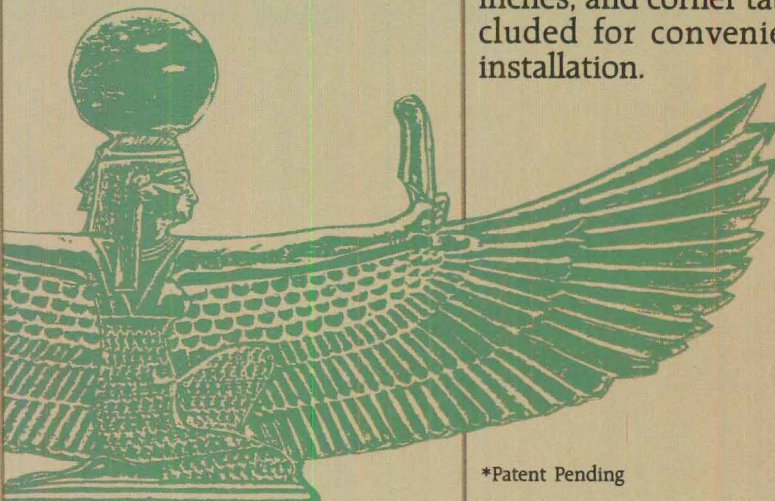


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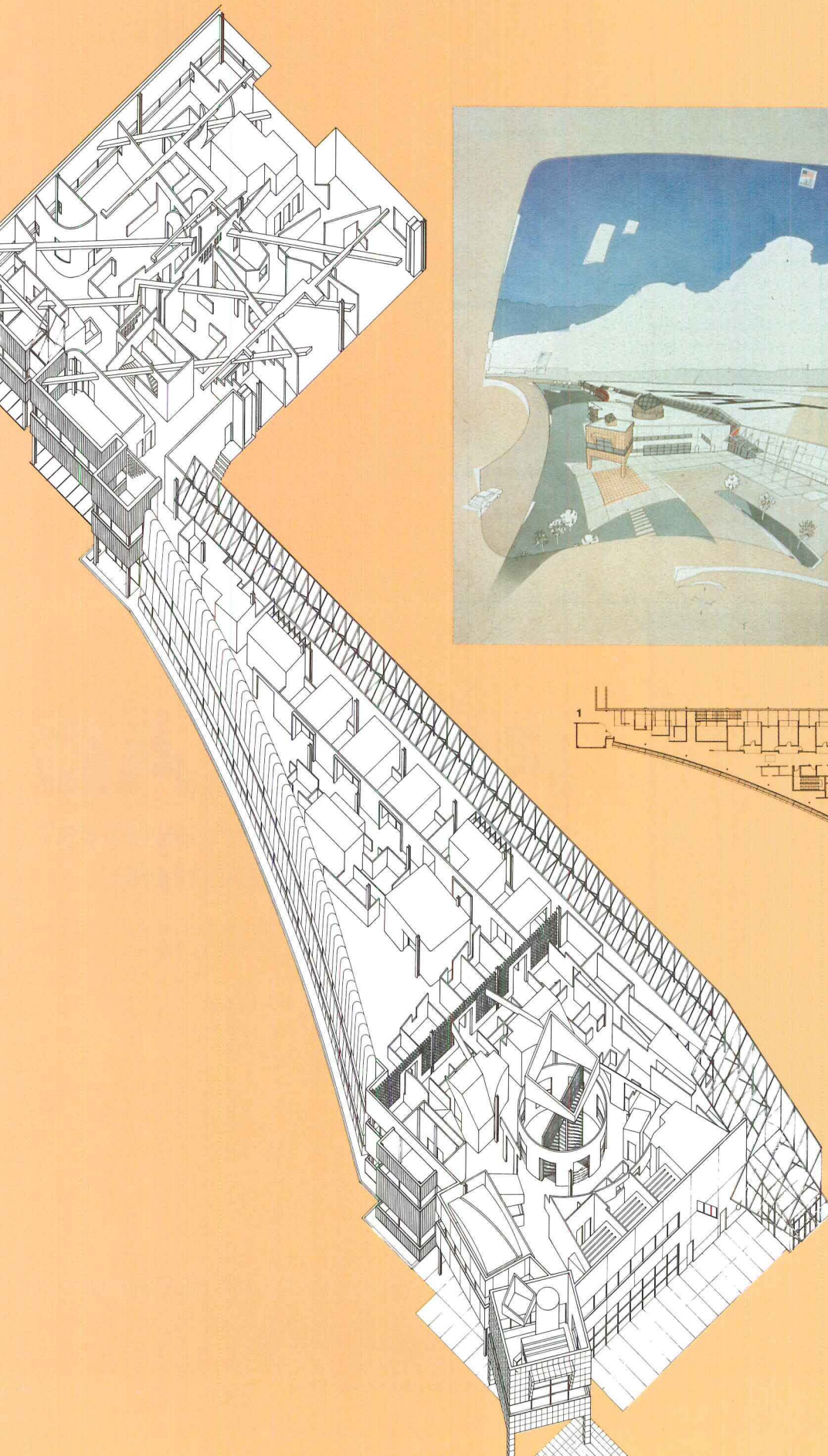
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\*Patent Pending

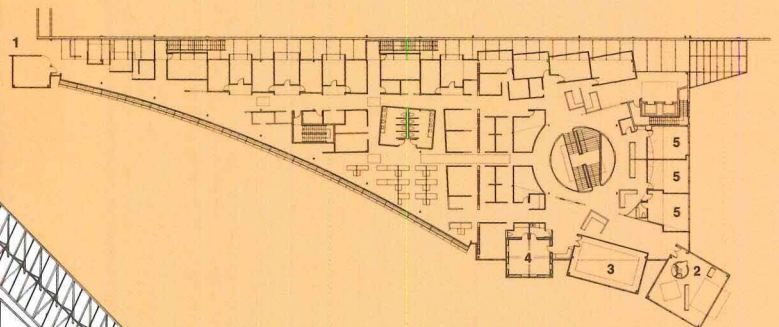


# In Progress

Shown below: an addition to Frank Gehry's Mid-Atlantic Toyota offices by Franklin Israel of Beverly Hills, Calif. Two branch libraries by Scogin, Elam & Bray of Atlanta are shown on pages 40 and 42.



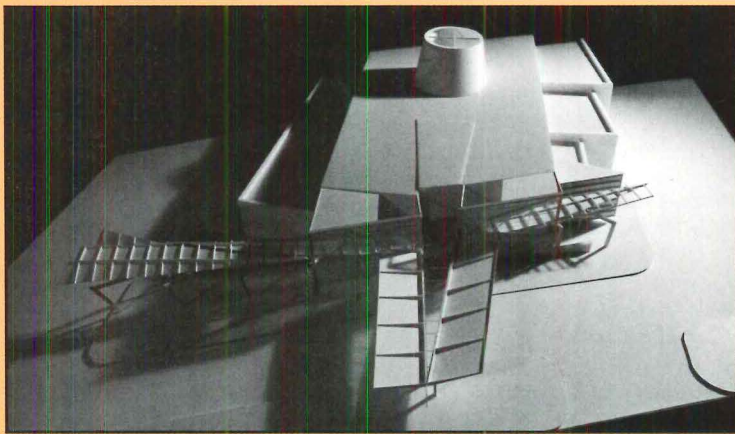
**Mid-Atlantic Toyota Distributors, Inc., Glen Burnie, Md.**  
*Architects: Franklin D. Israel Design Associates, Beverly Hills, Calif.; Myers and D'Aleo, Inc., Baltimore, Md., associated architects.* This 40,000-sq-ft, two-story addition to the company's existing executive offices, designed by Frank O. Gehry & Associates in 1977, pays homage to Gehry's building (top portion of axonometric), to which it is joined by a skylighted spine and a series of corrugated metal "boxes." A dramatic stair leads to the "executive palazzo," with its rotated lounge, boardroom, and chairman's office "pods." "Toyota red" porcelain panels cover the sweeping front, with the executive lounge, boardroom, and chairman's office clad in corrugated metal, concrete panels, and granite tile, respectively. Completion is set for Spring 1988.



SECOND FLOOR PLAN N 40'12m

- 1 EXISTING OFFICES
- 2 CHAIRMAN'S OFFICE
- 3 BOARDROOM
- 4 EXECUTIVE LOUNGE
- 5 VICE PRESIDENTS' OFFICES





**In Progress** (continued from page 39)  
**Buckhead Branch Library, Atlanta.** Architects: Scogin, Elam & Bray, Atlanta. The city of Atlanta and surrounding Fulton County have begun the extensive project of building 11 new branch libraries, renovating 4 existing branches, and adding small book-lending kiosks in commuter rail stations.

This unprecedented library building program, to be completed in 1988, represents \$38 million in capital improvements. According to planning coordinator James Brooks, each library was awarded to a different architect to avoid the use of a library prototype and to encour-

age each design to respond to its distinctive neighborhood.

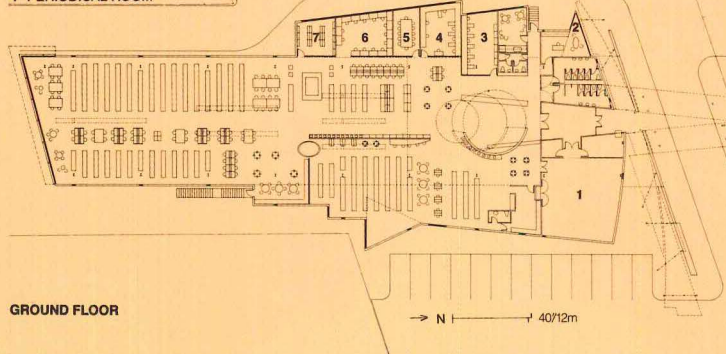
The 20,000-square-foot Buckhead branch is a boldly modern symbol of its changing neighborhood, now experiencing a building boom. Stretched along the site's north-south axis, the building gains access to two important roads and a view of the city. In section, the library resembles a winged craft at the point of takeoff. This dynamic presence will hold its own among the new towers in this neighborhood.

**Claire Downey**

*The author is an architect with John Portman & Associates.*

(continued on page 42)

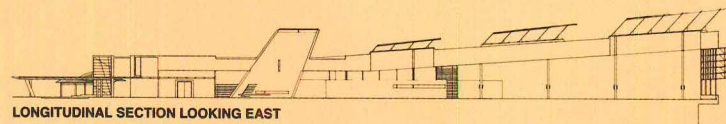
- 1 PUBLIC MEETING ROOM
- 2 DIRECTOR'S OFFICE
- 3 CIRCULATION WORK ROOM
- 4 REFERENCE WORK ROOM
- 5 CONFERENCE ROOM
- 6 MICROFILM/COPY ROOM
- 7 PERIODICAL ROOM



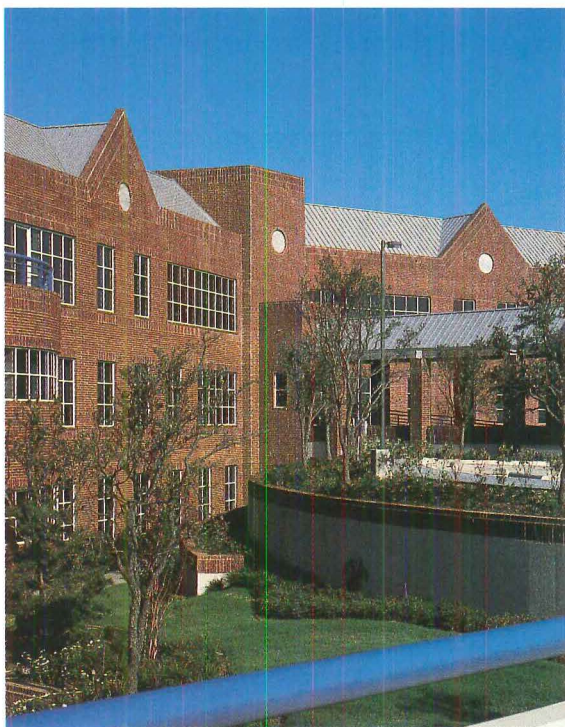
GROUND FLOOR



NORTH ELEVATION/MAIN ENTRY



LONGITUDINAL SECTION LOOKING EAST



**Project:** The Overlook Building  
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 Tramell Crow Residential Companies  
**Product:** PAC-CLAD Panels  
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**Finish:** 24 gauge Galvanized PAC-CLAD  
 Slate Gray  
**Owner:** Chasewood Company  
**Architect:** F&S Partners Inc.  
**General Contractor:** The Chaser Company

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*Regency Park, Cary, NC*

*Owner: Regency Park Corporation*

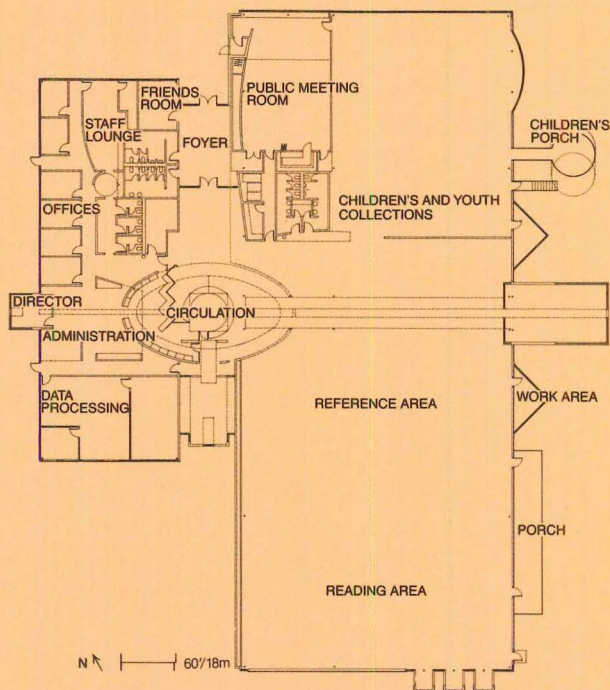
*Architect: Thompson, Ventulett, Stainback & Associates*

*Contractor: Metric Constructors, Inc.*

*Elevators sold and installed by  
Dover Elevator Co., Greensboro, NC*

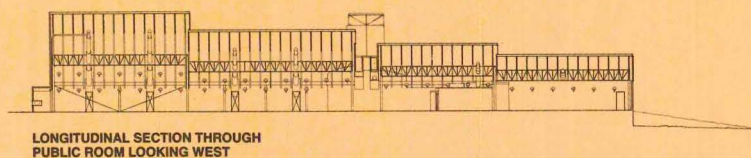




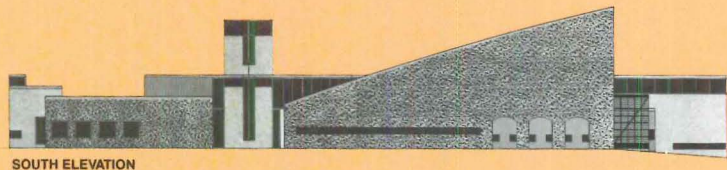


**In Progress** (continued from page 40)  
**Clayton County Library System Headquarters and Main Branch, Georgia.** Architects: Scogin, Elam & Bray, Atlanta. In contrast to the Buckhead branch library by the same architects (page 40), the Clayton County Library occupies a wooded, pastoral site near Atlanta's International Air-

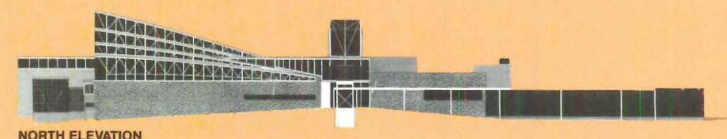
port. This richly textured and animated library will also be used for community meetings. Because of this diverse program, the architects refer to their 33,000-square-foot, patterned-metal-clad building as a "K-Mart for Information." The Clayton County project will be completed in January 1988. **Claire Downey** ■



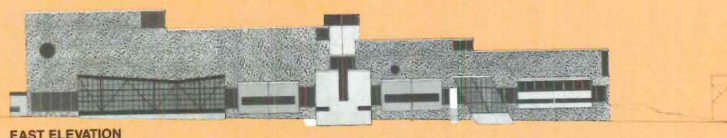
LONGITUDINAL SECTION THROUGH PUBLIC ROOM LOOKING WEST



SOUTH ELEVATION



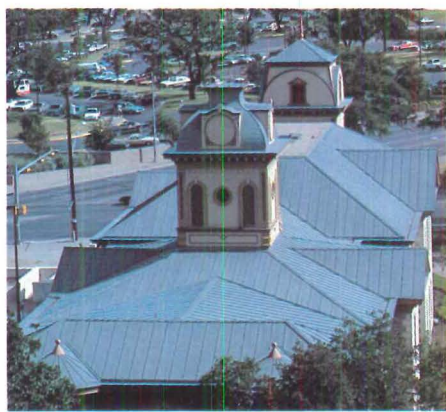
NORTH ELEVATION



EAST ELEVATION

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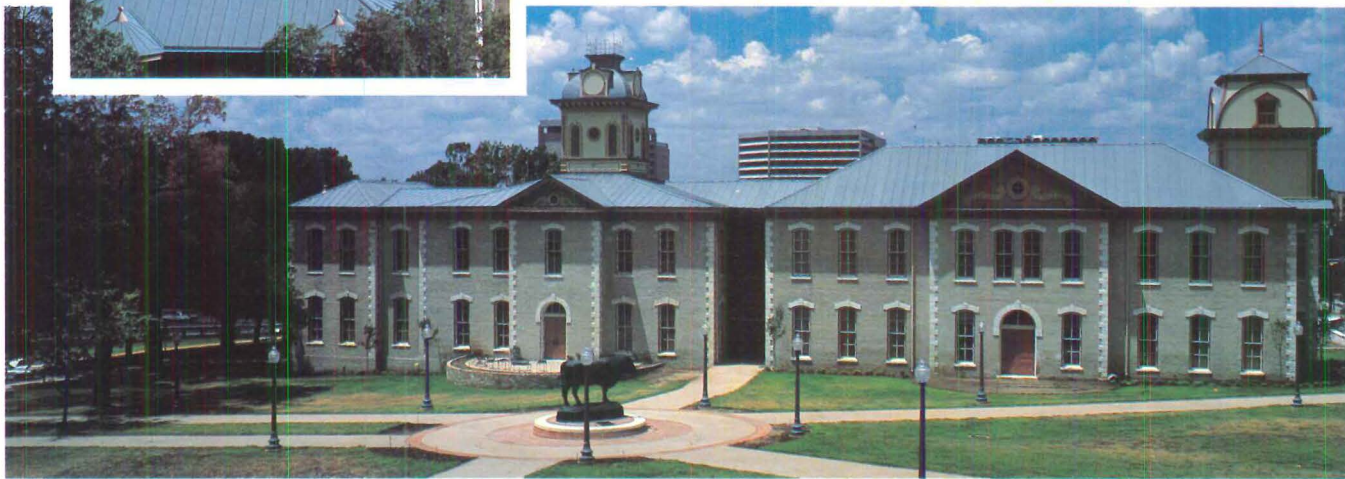
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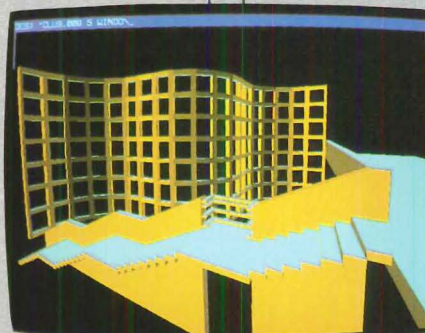
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Get more business done. On-screen menus (left screen) facilitate the production of contract documents. Drawing courtesy of Heard & Associates, Chicago, Illinois.

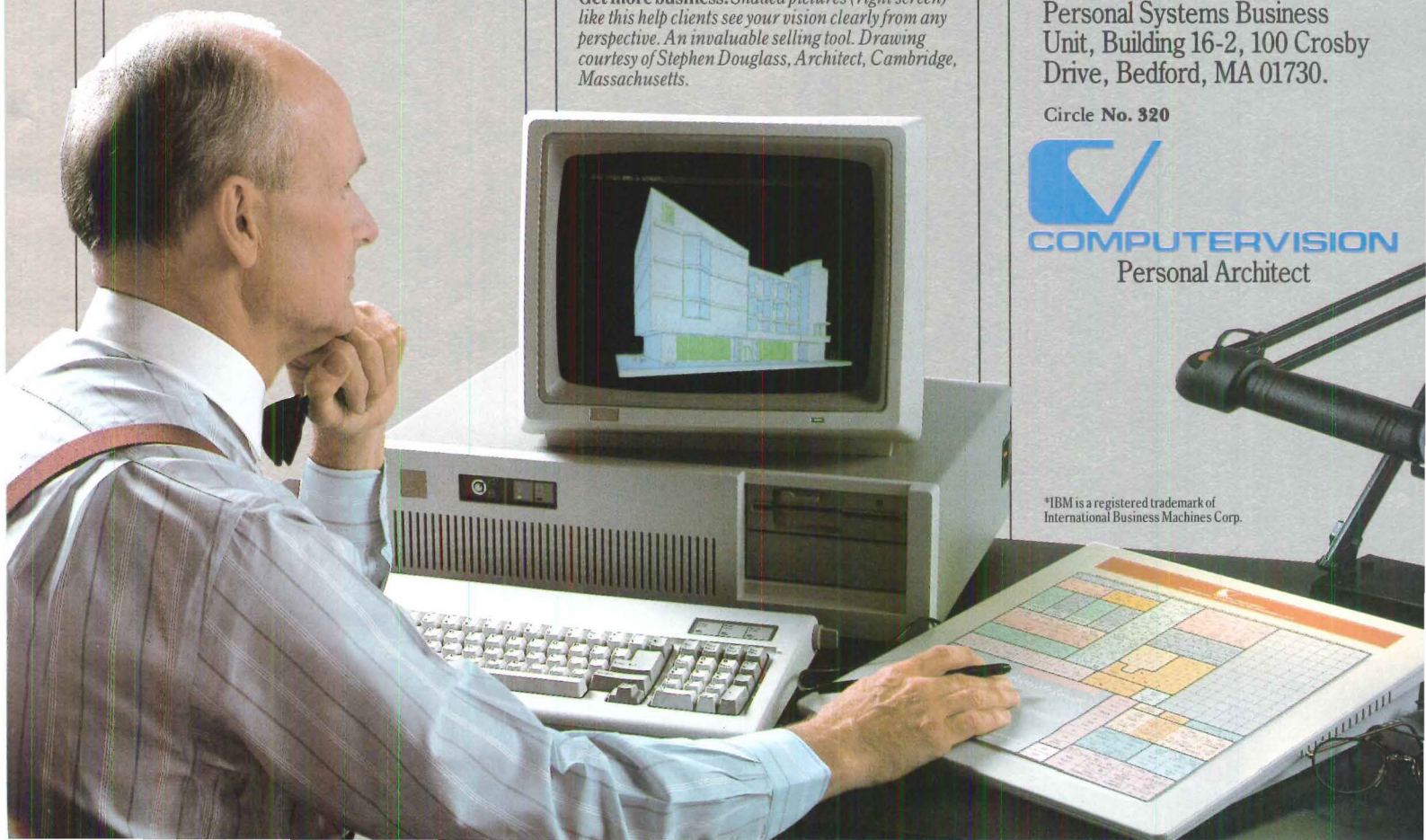
Get more business. Shaded pictures (right screen) like this help clients see your vision clearly from any perspective. An invaluable selling tool. Drawing courtesy of Stephen Douglass, Architect, Cambridge, Massachusetts.

**F**or more information on the Personal Architect write: Computervision Corporation, Personal Systems Business Unit, Building 16-2, 100 Crosby Drive, Bedford, MA 01730.

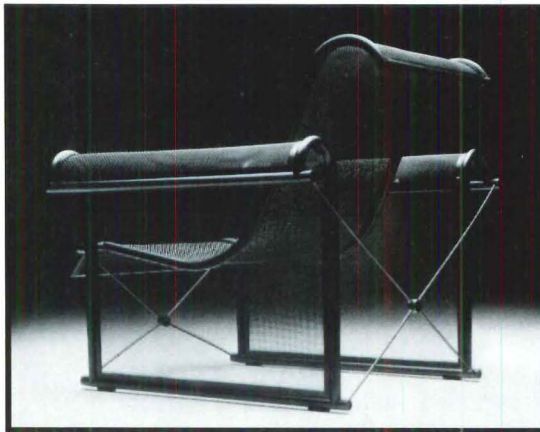
Circle No. 320

  
**COMPUTERVISION**  
Personal Architect

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Ronald Cecil Sportes, *Sofa and Mesh Chair* (JG Furniture) at IDCNY, Sept. 23.

## Exhibitions

### Through September 6

The Golden Age of Ottoman Architecture: Sinan, Sultan Süleyman's Court Architect. The Art Institute, Chicago. Also October 4–January 17, Metropolitan Museum of Art, New York.

### Through September 9

Charles Moore: Buildings and Projects 1949–1986. German Architecture Museum, Frankfurt am Main, West Germany.

### Through September 15

Mario Bellini: Designer. The Museum of Modern Art, New York (see p. 27).

### Through September 20

Kenzo Tange: 40 Years of Urbanism and Architecture. L'Ecole National Supérieure des Beaux-Arts, Paris.

### Through September 27

Art Nouveau Bing: The Paris Style 1900. Cooper-Hewitt, New York.

### Through September 30

Robert Adam and Kedleston Hall: The Making of a Neoclassical Masterpiece. Cooper-Hewitt, New York.

### Through October 3

Leon Krier and the Completion of Washington. The Octagon Museum, Washington, D.C.

### August 14–October 4

Mario Botta. San Francisco Museum of Modern Art, San Francisco (See P/A, Jan. 1987, p. 31).

### August 15–October 11

Frank Lloyd Wright and the Johnson Wax Buildings: Creating a Corporate Cathedral. Farish Gallery of Rice University, Houston, Texas (See P/A, April 1986, p. 27).

### August 16–September 20

Long Island Modern: The First Generation of Modernist Architecture on Long Island, 1925–1960. Guild Hall Museum, East Hampton, N.Y.

### August 16–October 18

The Machine Age in America 1918–1921. Los Angeles County Museum of Art, Los Angeles (See P/A, Nov. 1986, p. 110).

### August 16–November 1

The Art that is Life: The Arts and Crafts Movement in America 1875–1920. Los Angeles County Museum of Art, Los Angeles (See P/A, May 1987, p. 32).

### August 28–October 25

The Function of Ornament: The Architecture of Louis Sullivan, St. Louis Art Museum, St. Louis (See P/A, Nov. 1986, p. 26).

### September 1–November 7

Die Revision Der Moderne: Post-modern Architecture 1960–1980. IBM Gallery of Science and Art, IBM Building, New York (See P/A, Sept. 1984, p. 26).

### September 15–October 31

What Could Have Been: American Unbuilt Architecture of the 80's. Cheekwood Fine Arts Center, Nashville, Tenn.

### September 23–November 13

Ronald Cecil Sportes: Design for the Elysée Palace and Other Works. Center One, International Design Center, Long Island City, New York.

### October 3–November 11

Rome—New Buildings in the Eternal City. German Architecture Museum, Frankfurt am Main, West Germany.

### October 8–January 11

Future Le Corbusier. Grand Gallery, George Pompidou Center, Paris.

### October 13–January 31

"Galveston Arches" with designs by seven leading architects. Cooper-Hewitt, New York.

## Competitions

### August 31

Deadline for nominations, Wolf Prize in Architecture. Contact Y. Gruder, Director General, Wolf Foundation, p.o.b. 398 Herzliya 46103 Israel or 052-556120 for nomination forms.

### August 31

Entry deadline, Invent 89, International Competition for Urban Creativity to Commemorate the Bicentenary of the French Revolution. Contact La Grande Halle-La Villette, 211 Avenue Jean-Jaures, 75019 Paris, France.

### September 1

Application deadline, National Endowment for the Arts Project Grants for Individuals or for Distinguished Designer Fellowships. Contact Design Arts Program or Fellowship Grants, National Endowment for the Arts, 1100 Pennsylvania Ave. N.W., Washington, D.C. 20506 (202) 682-5437.

### September 2

First stage deadline, Spirit of Collaboration Competition to revitalize Todos Santos Plaza, Concord, California. Contact City of Concord, Civic Center, 1950 Parkside Drive, Concord, Calif. 94519 (415) 671-3159.

### September 8

Submission deadline, 35th Annual Progressive Architecture Awards Program. Contact Awards Editor, Progressive Architecture, 600 Summer Street, P.O. Box 1361, Stamford, Conn. 06904 (203) 348-7531, ext. 521.

### September 25

Submission deadline, 1988 National Planning Awards. Contact American Planning Association, 1776 Massachusetts Ave. N.W., Washington, D.C. 20036 (202) 872-0611.

### September 28

Registration deadline, Waterfront Ideas Competition (see Pencil Points, p. 26). Contact Municipal Arts Society, 457 Madison Ave., New York, N.Y. 10022.

### September 30

Deadline extension, East Meets West in Design. Contact East Meets West, P.O. Box 974, Rockefeller Station, New York, N.Y. 10185 (212) 586-6314.

### September 30

Entry deadline, *The Guild American Crafts Awards* Annual Competition including categories for freestanding furniture and installed architectural details. Contact *The Guild American Crafts Awards*, % Krause Sikes, Inc., Publishers of *The Guild*, 150 W. 25th St., New York, N.Y. 10001 (212) 242-3730.

(continued on page 49)



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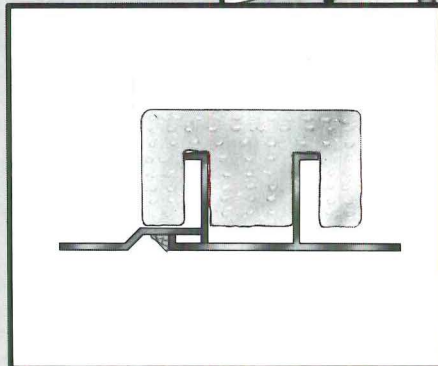
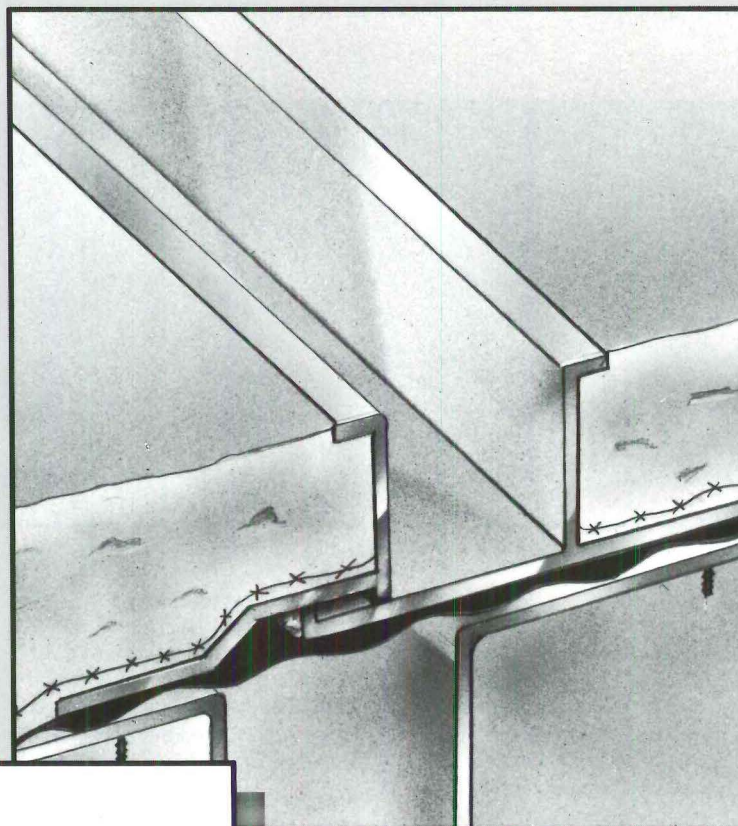
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*Plaster Control Screed with Styrofoam spacer*

*Detail of Plaster Control Screed*



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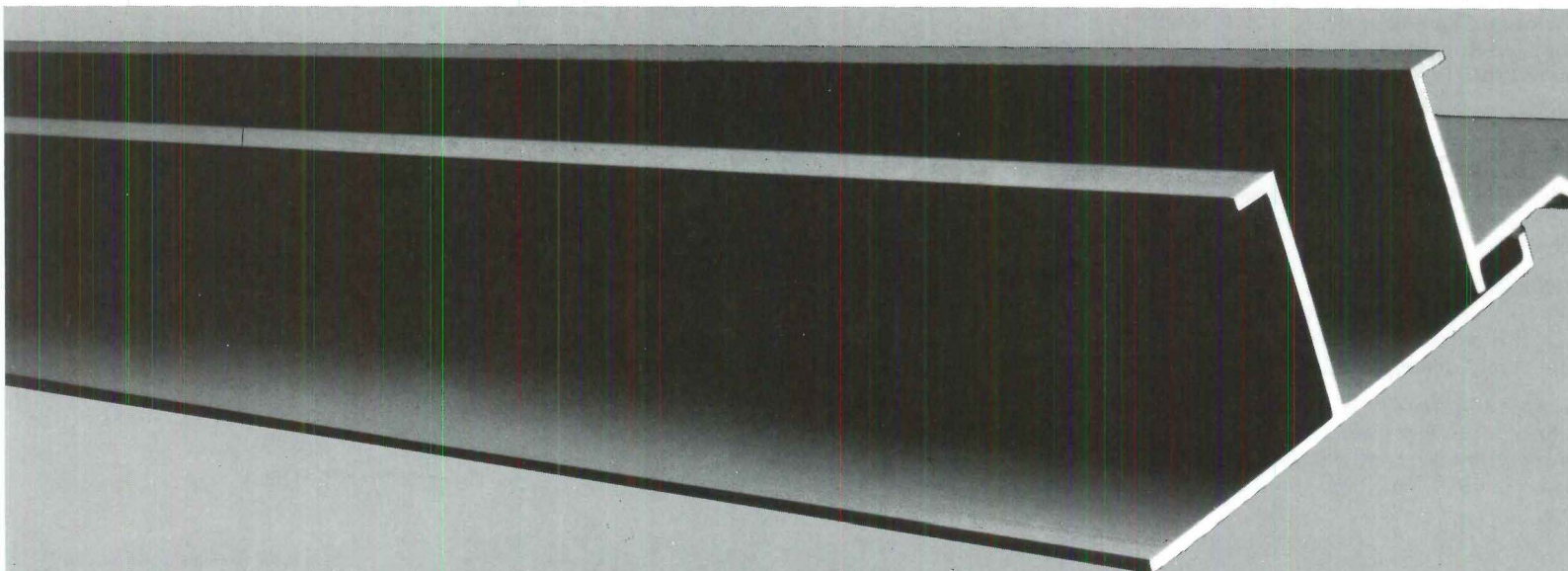
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**Calendar** (continued from page 47)

**September 30**

Submission deadline, EMU International Design Award for garden and casual furniture for residential and commercial use. Contact Linda Stephan, EMU/USA, 2318 Fraver Dr., Reading, Pa. 19605 (215) 376-3386.

**September 30**

Entry deadline, International Association of Lighting Designers Fifth Annual Lighting Design Awards Program. Contact ALD, 18 E. 16th St., Suite 208, New York, N.Y. 10003 (212) 206-1281.

**September 30**

Entry deadline, Design Impressions/Design Expressions, Tarkett Tile's Annual Design Competition for commercial installations of Expressions vinyl floor tile and/or Optima Expressions sheet vinyl. Contact Competition Coordinator, Tarkett Inc., 800 Lanidex Plaza, Parsippany, N.J. 07054.

**November 6**

Entry deadline, Concrete Reinforcing Steel Institute Design Awards IX. Contact CRSI, 933 N. Plum Grove Rd., Schaumburg, Ill. 60173-4758 (312) 490-700.

**Conferences**

**August 17-20**

International Congress of Planning and Design Theory, Boston Park Plaza and Towers, Boston, Mass. Contact American Society of Mechanical Engineers, 345 E. 57th St., New York, N.Y. 10017.

**September 1-2**

Workspace 87, Moscone Center, San Francisco. Contact Currie McLaughlin, Workspace, 655 Chestnut St., San Francisco, Calif. 94133 (415) 776-2111.

**September 3-5**

AIGA Second National Design Conference, San Francisco. Contact Kay Bergl, American Institute of Graphic Arts, 1059 Third Ave., New York, N.Y. 10021.

**September 9-11**

Bringing Back Urban Vitality, Detroit, Mich. Also **September 18-30**, Oakland, Calif. Contact the National Main Street Center, National Trust for Historic Preservation, 1785 Massachusetts Ave. N.W., Washington, D.C. 20036 (202) 637-4141.

**September 16-21**

Milan Furniture Fair (Salon del Mobile), Milan, Italy. Contact COSMIT, Corso Magenta 96, 20123 Milan, Italy.

(continued on page 50)



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Entries are judged on aesthetic expression, engineering achievement, functional excellence and economy of structure utilizing conventionally reinforced, cast-in-place concrete. The competition is open to all registered architects and engineers submitting structures located anywhere in the United States, and completed since January 1, 1985.

Entries must be received by November 6, 1987; requirements correspond to those of the AIA Honors Awards Program for easy submission to both programs. For complete rules and information, call or write CRSI.



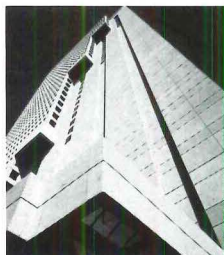
A



B



C



D



E



F



G

- A. Kagan-Rudy Chapel  
Houston, Texas  
Architect: Clovis Heimsath  
Associates, Inc., Austin, Texas
- B. 320 North Michigan  
Chicago, Illinois  
Architect: Booth/Hansen &  
Associates, Ltd., Chicago, Illinois
- C. Teleglobe Canada Cable Station  
Honolulu, Hawaii  
Architect: Johnson Reese Luersen  
Lowrey Architects, Inc., Honolulu,  
Hawaii
- D. InterFirst Tower  
Fort Worth, Texas  
Architect: Sikes Jennings Kelly,  
Houston, Texas
- E. The Lawson Residence  
Alta, Utah  
Architect: Ms. Margaretta L.  
Woolley, Salt Lake City, Utah

- F. Tabor Center  
Denver, Colorado  
Architect: Kohn Pedersen Fox  
Associates PC, New York, New York
- G. Huntington Station  
Fairfax County, Virginia  
Architect: Harry Weese &  
Associates, Ltd., Washington, D.C.



**Concrete Reinforcing Steel Institute**  
933 N. Plum Grove Road  
Schaumburg, Illinois 60173-4758  
312/490-1700

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**Calendar** (continued from page 49)

### September 17-20

Wood & Water: 1987 Association for the Preservation of Technology Conference, Victoria, British Columbia, Canada. Contact APT '87 Conference Office, University of Victoria, P.O. Box 1700, Victoria, B.C. V8W 2Y2, Canada, or call Alastair Kerr, Program Chairperson (604) 721-8465.

### September 20-22

The Business of Lighting: Third Pan Pacific Lighting Exposition, Concourse Exhibition Center, San Francisco. Contact Zinkhonn Communications, 2 Henry James St., San Francisco, Calif. 94103 (415) 621-7345.

### September 20-24

Twelfth Annual Design Management Conference, Martha's Vineyard, Mass. Contact Betsy Spear, Associate Director, Design Management Institute, 777 Boylston St., Boston, Mass. 02116-2603 (617) 236-1315.

### September 24-26

Urban Waterfronts '87, Fifth Annual Conference, Omni-Shoreham Hotel, Washington, D.C. Contact Martha Evelyn, Conference Coordinator, Waterfront Center Office, 1536 44th St. N.W., Washington, D.C. 20007 (202) 337-0356.

### September 30-October 2

Winning Better Business: 1987 Society for Marketing Professional Services National Convention, Chicago, Ill. Contact SMPS 801 N. Fairfax St., Suite 215, Alexandria, Va. 22314 (800) 292-7677 or (703) 549-6117.

### October 7-10

Design New York 1987, New York. Contact Resources Council Inc., 979 Third Ave., New York, N.Y. 10022 (212) 752-9040.

### October 7-10

Designer's Saturday, International Design Center, Long Island City, New York. Contact Linda Foa, Designer's Saturday 911 Park Ave., New York, N.Y. 10021 (212) 249-5237.

### October 7-15

8th Annual International Council on Monuments and Sites General Assembly, Washington, D.C. Contact Director of Programs, US/ICOMOS, 1600 H St. N.W., Washington, D.C. 20006 (202) 673-4211.

### October 18-21

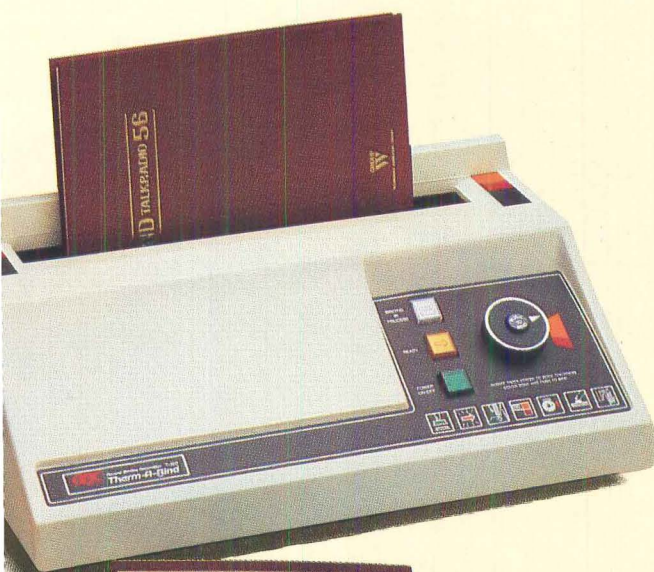
Prestressed Concrete Institute's 1987 Annual Convention, Hyatt Regency, New Orleans. Contact Dawn Myers, PCI, 175 W. Jackson Blvd., Chicago, Ill. 60604 (312) 786-0300.



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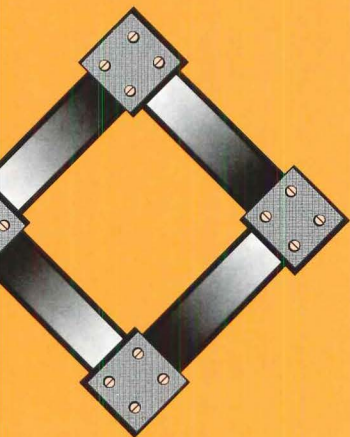


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## Law: Liability Insurance

There has been a great deal written in the past several years concerning the legal liability of the architect, usually in terms of a crisis and the likelihood of a worsening situation. But to what extent have insurance costs risen and, more important, how effective is an Errors and Omissions (E & O) policy in providing adequate coverage?

The information provided by insurance companies and the AIA certainly suggests that major insurance problems have developed. Published estimates of premium costs cite increases of up to 350 percent during 1986<sup>1</sup> with some firms experiencing a tripling or quadrupling of their annual premiums, even though they have had no claims made against them within the previous five years.<sup>2</sup> One firm even claims that, over a 13-year period, their rates have escalated 4000 percent.<sup>3</sup>

Furthermore, coverage itself has become more difficult to obtain. While a relatively new phenomenon that only really developed after the Second World War, E & O insurance has been available from as many as 13 companies in the U.S. According to the AIA, the number of available companies dropped to only two last year, meaning a possible rejection rate of architects seeking coverage of between 25 and 86 percent.<sup>4</sup> This has meant that insurance, if it is securable, has become the second most expensive drain on office funds next to payroll, and can account for approximately 4 percent of a firm's gross income.

A brief review of the liability situation provides some insight into why insurance has become so problematic. Claims per 100 insured architects were recorded at 16 in 1960. By 1984, this had risen to a staggering 44—nearly half of the number of insured architects reported a claim made against them in one year.<sup>5</sup> The average cost of settling a claim was estimated recently to be ap-

(continued on page 58)

## Building Failures: Redundant Systems

Most building and bridge failures are catastrophic when there is a lack of structural redundancy. Such redundancy provides a "back-up" system either to take over when a local load-carrying system fails or at least to prolong failure until obvious warning signs alert people that something serious is about to happen.

Structures under construction are particularly vulnerable to overloading or failure because they have little structural redundancy, especially during their early stages. The recent failure of the 13-story apartment complex under construction in Bridgeport, Conn., is a dramatic case in point. Although the cause or causes of this collapse are still under investigation, any one of a number of situations or conditions could have triggered the failure of this lift-slab system, which, at the time, had no redundancy and which, as a construction process, is inherently unstable until the hovering concrete slabs are tied into the rest of the building.

The Bridgeport failure is somewhat analogous to the Hyatt Regency skyway collapse in Kansas City, in that the complete lack of structural redundancy (suspension systems such as the one used in the Hyatt are noted for their lack of redundancy) meant that there were no alternate load paths and, as a result, little warning of the impending disaster.

Buildings aren't alone in their redundancy problems. Although the recent failure of the New York State Thruway bridge that spans Schoharie Creek was most likely triggered by soil erosion under a shallow pier footing, it was the lack of redundancy or structural continuity in the design that caused the spans to tumble into the raging creek along with ten unsuspecting motorists. The bridge's simply supported spans (the approach taken in most of our bridge de-

(continued on page 60)

**Law:** Robert Greenstreet discusses Errors and Omissions policies.

**Building Failures:** Raymond A. DiPasquale explains the need for redundant building systems.

**Specifications:** Walter Rosenfeld suggests ways to make the pre-bid conference worthwhile.

## Specifications: Pre-Bid Conferences

Architects and owners have often been skeptical about the value of pre-bid conferences to which all bidders are invited and at which previously unrecognized problems concerning a proposed building's construction can be raised and addressed before pricing is completed.

Some of the skepticism is obviously based on disappointing experiences with this device, when only a few bidders show up and few questions of any significance are asked. In such cases one wonders, justifiably, if it is a waste of time and effort. Others have had more success: large turnouts, valid questions raised, confusion and conflicts in the contract documents clarified, and a feeling generated that the project benefited from a meeting of the minds.

The pre-bid conference is probably most useful for larger and publicly bid projects, those with difficult site constraints or complicated phasing requirements. Bidders' questions often deal with logistical problems, scope of work (particularly in remodeling), and division of work (especially in multiple-contract or owner-participation arrangements). There are many advantages to having such a conference, assuming sufficient thought is given to the ingredients necessary to make it productive and therefore successful. Here are some suggestions.

**Planning:** Select the meeting date and time in advance and announce them in the invitation to bid or in the advertisement so that bidders can schedule and prepare for the event.

**Location:** Hold it at the site if at all possible, thus creating a further incentive for bidders to visit the place (especially important in remodeling). Typically the bid documents require such a visit, but meeting there helps make it happen and reduces the grounds for later disclaimers and excuses. If an existing build-

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**Law** (continued from page 57)

proximately \$160,000. This figure does not quite compete with the medical profession, an equally beleaguered group (with average awards of \$1,179,095 in 1985), although their estimated rate of being sued is much lower than architects—only 20 per 100 physicians are involved in a claim each year.<sup>6</sup>

Despite these statistics, there are some grounds for optimism. Recent reports suggest that the crisis has now leveled off and that, by the end of 1987, the profession can expect some improvements<sup>7</sup> (the pressures on the brokers are largely cyclical and another “hard” market is unlikely to return until the early 1990s). Also, an AIA Task Force has been addressing the issue of insurance coverage and is working on a number of improvements, including lobbying at the state level for reform of the current system, particularly in relation to nonmeritorious suits, statutes of limitation, ceilings on claims, and “shotgun” suits that cite all parties in the construction process regardless of potential blame for an alleged fault. Until tort reform does occur, however, architects can expect premiums to remain at a level commensurate with the high risks.

It's often assumed that coverage, once obtained at whatever price, provides an adequate protection from any future problems; but this is not necessarily the case. It is useful, therefore, to take a hard look at insurance to see its actual worth.

**What is Really Covered?**

The basic premise behind insurance is simple: by paying an annual premium to a third party, it will assume responsibility for your actions if certain problems occur. But there are many conditions in each policy that qualify the coverage and should be checked very carefully to understand their effect. Failure to do so can lead to unpleasant surprises after a claim has been filed.

For example, coverage is rarely all-encompassing. Nearly all policies contain a deductible payable by the insurees. The lower the deductible, the higher the premium, so firms must balance the risk of a hefty payment with the ongoing costs of the premium. Policies need to be checked very carefully to ensure that the deductible does not apply to each element of a claim (or, in the case of a four-part claim, the hapless insuree may end up paying *four* deductibles) and whether legal fees sustained

in the defense of a claim will be made payable from this sum. Although the carrier will be responsible for claims beyond the deductible, there also is likely to be a limit on the extent of coverage. A Chicago firm, for example, had its premium increased ninefold over a period of ten years, while having its coverage reduced from \$10 million to \$5 million—a relatively low ceiling considering the magnitude of their workload.<sup>8</sup>

Coverage of the insuree is an area that requires considerable attention, and policy holders should familiarize themselves with the extent of coverage that they have purchased. Many policies limit coverage on certain items, such as asbestos-related work or unpaid fees, and are usually issued on a “claims made” basis; that is, coverage will only be guaranteed if the policy is in effect when the claim is made. If coverage is dropped (as in the case of retirement), claims made for alleged faulty work, even for cases undertaken in a period when coverage was maintained, may be excluded. Similarly, architects should check that, if a new carrier is used, work completed under a previous policy is still adequately covered.

Perhaps the most important aspect of insurance is the attitude of the brokers themselves. It is comforting to envisage the insurance companies as benign protectors. It must be remembered, however, that insurance is also a business, and that self-interest is likely to play some part in the determination of claims. When a claim is made, companies will assess the extent of their liability and, where possible, minimize or mitigate their potential losses.<sup>9</sup> This could mean their seeking to exclude a claim on the basis of lack of coverage (which may be possible if the architect has not carefully ensured that the policy is intact and adequate) or lack of notification or disclosure. Insurance policies are granted on the basis of *uberrimae fidei* (on good faith) and any lack or delay in notification by the architect, either at the time the policy was granted or at the time of the claim, could render the coverage void. In a further attempt to mitigate their own losses, companies may seek to settle with prospective litigants rather than pay the costs of fighting a case in court. This may not necessarily be in the best interests of an architect, who may have had an excellent chance of winning a case, who will lose the deductible, and who

may have the premium raised in the following years as a result of the “lost” case. Coverage and defense should never be presumed, and architects should remain alert to ensure that their rights are maintained.

**Practical Strategies**

Although insurance is likely to remain a constituent element of architectural practice, it should be approached with caution to ensure adequate coverage, particularly for smaller practices that may have less experience or expert help available in the selection of a policy. Architects should shop around to find both the best carrier and the most appropriate policy for their needs. The *A.M. Best Company Key Rating Guide* gives an indication of the relative financial stability of each company, and the AIA has produced a number of useful guides to selecting a carrier. Companies should be approached well in advance of the policy commencement date, even if only an extension of their current policy is required. Also, they should be vigorously quizzed as to their coverage, methods of handling claims, ability to formulate special coverage (to deal with retiring partners, for example, or to cover individual projects undertaken as joint ventures), and to provide additional support services. Victor Schinnerer & Co., the oldest company providing E & O insurance in America, provides extremely useful loss control workshops and publications for its clients. In the event that a change in carrier is desired, the switch should be made with the utmost care to avoid potential loss of coverage for work previously completed. All details of the coverage should be in writing, and the contents of the final policy carefully scrutinized and discussed among the senior members of the practice.

Having accepted the high costs of insurance, some firms seek to offset the expense by requiring in the contract that the owner pay the premium as a direct reimbursement. This is a useful strategy, although it will require careful explanation and negotiation in the pre-contract discussions to ensure its acceptability. Other firms have claimed some success in excluding liability by having the client indemnify them in the contract and then covering the project under their own insurance. This strategy may be problematic since some courts have rejected such indemnifications, and since less than 50 percent of claims made against

the architect are actually by the owner; consequently, the practitioner's protection is by no means complete.

Other firms have evidently assessed the value of coverage and have decided that “going bare,” without insurance and therefore without cost of the premium, is worth the risk. This is a strategy frowned upon by the AIA and is unlikely to be acceptable to an experienced client, but it has found some credence in the profession, where it is estimated that as many as 10 percent of architects are practicing uninsured.<sup>10</sup> It has been suggested that the strategy be accompanied by the development of a “defense fund,” in which the architect saves an amount each month comparable to the insurance cost and invests it, using the money only in the event of a claim. Problems may arise, however, if a claim arrives before the fund has reached adequate proportions.

It should be remembered by those considering the virtues of “going bare” that, although it reduces the “deep pocket” provided by insurance that makes architects such attractive targets for suits, it by no means assures immunity from claims. The courts can still order the sale of personal assets to cover a successful claim or can ensure that future earnings are used to pay off debts. The age-old expedient of transferring assets into a spouse's name may also have its problems. With divorce running at approximately 50 percent for professionals, the risks of loss seem marginally worse.

**Summary**

It would seem that for many architects, insurance coverage is going to continue to be a necessary, if expensive, component of practice. If approached carefully and thoroughly, however, some of the problems of inadequate coverage can be minimized. Attempts have been made to consider a group insurance scheme in which all parties to a construction process would be covered under one comprehensive policy. But little progress has been made toward these alternatives. The AIA continues to exhort its members to agitate at the state level for legislative changes to improve the liability and insurance situation and continues to upgrade its services in helping architects to work towards a defensive, loss-preventive posture. This is perhaps the most realistic means of dealing with the situation in the foreseeable future.

(continued on page 60)



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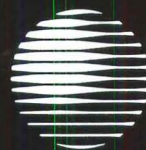
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**Law** (continued from page 58)

Ultimately, though, architects should pay closer attention to the details of their policy and quality of their carrier to ensure they have the best, and most secure, coverage available.

**Robert C. Greenstreet** ■

The author is an Associate Professor and Chair of the Department of Architecture, University of Wisconsin-Milwaukee.

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chapter provides an excellent, extensive account of the potential problems between architects and insurers in the event of a claim.

10. *Architectural Record*, Feb. 1986. The percentage is based on New York survey.

**Building Failures** (cont. from page 57) signs) and its narrow beam supports seated on top of slender piers might reduce bending moment transfer due to unbalanced loads, settlement, and thermal effects, but they do not give the desirable redistribution of forces when there is an overload or a localized failure because of corrosion or differential settlement. It is interesting to note that the redesigned bridge for the Schoharie Creek site consists of 14 *continuous* beams (instead of the original two-girder superstructure) seated on *broad* concrete piers sunk deep into the creek bed. While there is a valuable lesson here in rethinking a design, it raises the question of how many "time bombs" still exist in the thousands of structures all around us.

The failure of a bridge section over the Mianus River on I-95 in Connecticut is another example of a catastrophic situation. A single pin with a tension link-

age—a popular way for bridge engineers to splice beam elements together and allow free thermal movement—was all that held the section of span in place. When the pin or pins gradually slipped out because of long-term accumulated movement created by the traffic forces on the skewed bridge, the span and the motorists were free to fall.

You should be looking for lack of redundancy in every structure around you, regardless of whether it is a completed bridge, building, or other structure, and particularly if it is one of your own projects either under construction (especially so if at this stage), recently completed, or completed and in service for many years. It also might be well to review your entire project file to see if there are any potential candidates for sudden catastrophe. As a checklist for review, ask yourself questions like these: "Where would this structure most likely fail?" "How would it fail?" "What would happen if this key detail failed for any reason?" "Where would the load go?" "Is there an alternate path?" "Will there be obvious signs of distress so that people can evacuate?" "If there is no redundancy, is my safety factor several

times greater than the recommended minimum?"

The provision of a secondary support system does not have to alter the aesthetic effect. In retrospect one has to ask whether the ill-fated Hyatt Regency skyway would have suffered visually if there had been two or even three hanger rods at each location instead of one, along with a corresponding redundancy of floor beams. There is an aesthetic in everything an architect or engineer puts together: The challenge to a creative design professional is one of providing a back-up load-carrying system while still satisfying the critical visual demands that are so characteristic of simple and direct structural solutions. Technology today makes it possible to do things that were unheard of only a few years ago, so the professional's pallet of structural tricks is almost endless. If nothing else, the structural safety factors for non- or low-redundant systems should be three to four times normal; and in these situations, the failure mode should be very predictable so there will be no surprises.

The redundancy concept is something that every building designer must develop at an



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attitudinal level. It is not limited to structural matters; on the contrary, it is a strategy of design that must be a part of every building system created or selected whose failure could have a catastrophic effect or major economic impact.

Exterior wall systems need a second way for water to exit if the weeps become inoperable. Roofs need another way of shedding water if the drains get clogged. Stone cladding needs a redundant support system in case the major support system fails. You can't count on maintenance to catch potential problems; you have to make systems failproof. If a blind connection has to be made in the field, or if the anchorage system for a critical building element requires minimum tolerances or exceptional workmanship, assume the worst and either avoid the detail or provide for a secondary system that will automatically come into action if the original one fails or does not get installed correctly.

In the design office, it is essential that management set the pace and that staff understand the importance of the back-up strategy, so that it is reflected in the design documents and

clearly delineated in the details. Cost should not be a consideration in deciding whether a major system should be approached with built-in redundancy. Rather, it should always be a matter of designing the most economical redundant system. Overdesigning a simple structural system makes it very costly and does not assure redundancy; it just makes the system tougher to fail. Continuous steel frames, highly indeterminate space frames, and monolithic concrete floor systems are examples of redundant structural systems that can tolerate some overloading or local failure without major consequences.

In most building systems with non-bearing partitions, alternate load paths can occur through the partitions even though they were not designed to transmit any load. If you have ever seen an old wood frame building being torn down, you will appreciate the composite action natural to the system of interconnected walls, partitions, and floors. The lesson here is that you may not always have to design a sophisticated back-up system deliberately to achieve redundancy. To test such structures mentally, visualize critical

components of the system failing and then trace the possible new load paths that are created by the partitions or other adjacent structural elements. If you can rationalize by calculation that there would be a safe resolution of these loads, then redundancy exists and you have given the structure a measure of safety against catastrophic failure. The same strategy can be applied to the non-structural system as well.

Informed design professionals learn from failures, which give us new perspectives on old methods. There are many triggers of building failures, but if there is also a lack of redundancy, what starts out as an incident becomes a disaster.

**Raymond A. DiPasquale**

*The author is a professor of architecture at Syracuse University, where he teaches courses in structures and the performance of architectural systems. He also has an active structural consulting practice in Ithaca, N.Y., which specializes in failure investigation.*

**Specifications** (cont. from page 57)

ing is involved, bidders can tour the facility at the same time.

**Timing:** Don't meet until bidders have had a good chance to study the contract documents.

This generally means waiting until a week or so before bids are actually due. Busy bidders (and lazy ones) seldom get deeply into the drawings and specifications before they really have to, before they are ready to get down to business as the deadline nears. For most medium-size jobs, the intense estimating and pricing work occurs during the last part of the bidding period, even during the last week. Until then, bidders have not fully focused on the project and may not even have discovered any problem areas or questions that aren't answered in the documents themselves. On the other hand, there is a practical need to allow about a week for follow-up after the conference takes place and before bids are due.

**Agenda:** For an effective pre-bid meeting, the owner, the architect, the specifier, and the architect's consultants should all be present or should at least be represented. Both general and sub-bidders should be invited to attend. It is a good time to announce new decisions, comment on previously received questions, and give a brief background of a project's circumstances and

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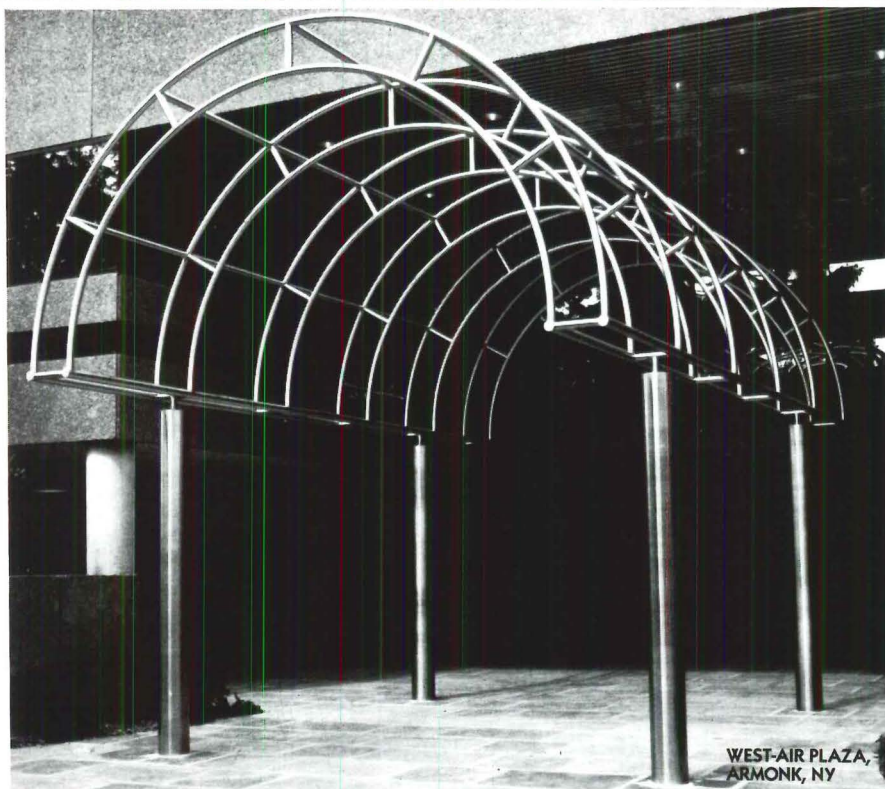
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**Specifications** (cont. from page 61)  
perhaps some of its history. Questions should be solicited from the floor.

The give-and-take should be open, but commitments should not be made before the team has had time to discuss any controversial or judgmental issues without an outside audience listening. All questions should be recorded, however, and only tentative decisions offered, making it clear that these need to be confirmed in writing to be valid.

**Follow-up:** Confirmation should be in the form of a written addendum to the contract documents sent to all bidders, whether they were able to attend the meeting or not. It is important that all competitors have the same information when preparing their bids. The addendum should be issued quickly after the conference, as soon as research and decisions are completed, and should be distributed to reach bidders while there is still time left to price and incorporate its information in their bids.

The critical timing of the conference is therefore a key element in determining its success or failure; it should be late enough to assure that the bidders are prepared but soon enough to allow addenda to be written and circulated before the deadline.

But the spirit of the meeting is important, too, and a responsive, helpful, enthusiastic owner's team can make a difference in the attitude of the bidders toward the work as well as laying the foundation for a team approach to construction after the contractor is selected. Bidders want knowledgeable, fair-minded, cooperative, and competent architects and owners to work with; they want those who recognize the problems of building as well as the importance of design, and who understand the economic interests as well as the managerial concerns of the contractor.

The specifier's role is to provide technical know-how to the team, to have thorough familiarity with the project manual at the pre-bid conference, and then to lead the addendum preparation effort. Bringing a well-prepared project manual to the meeting is another way to help insure its success as well as the success of the construction that follows.

**Walter Rosenfeld, AIA, CSI**

*The author is an architect and specifications consultant in Newton, Mass.*



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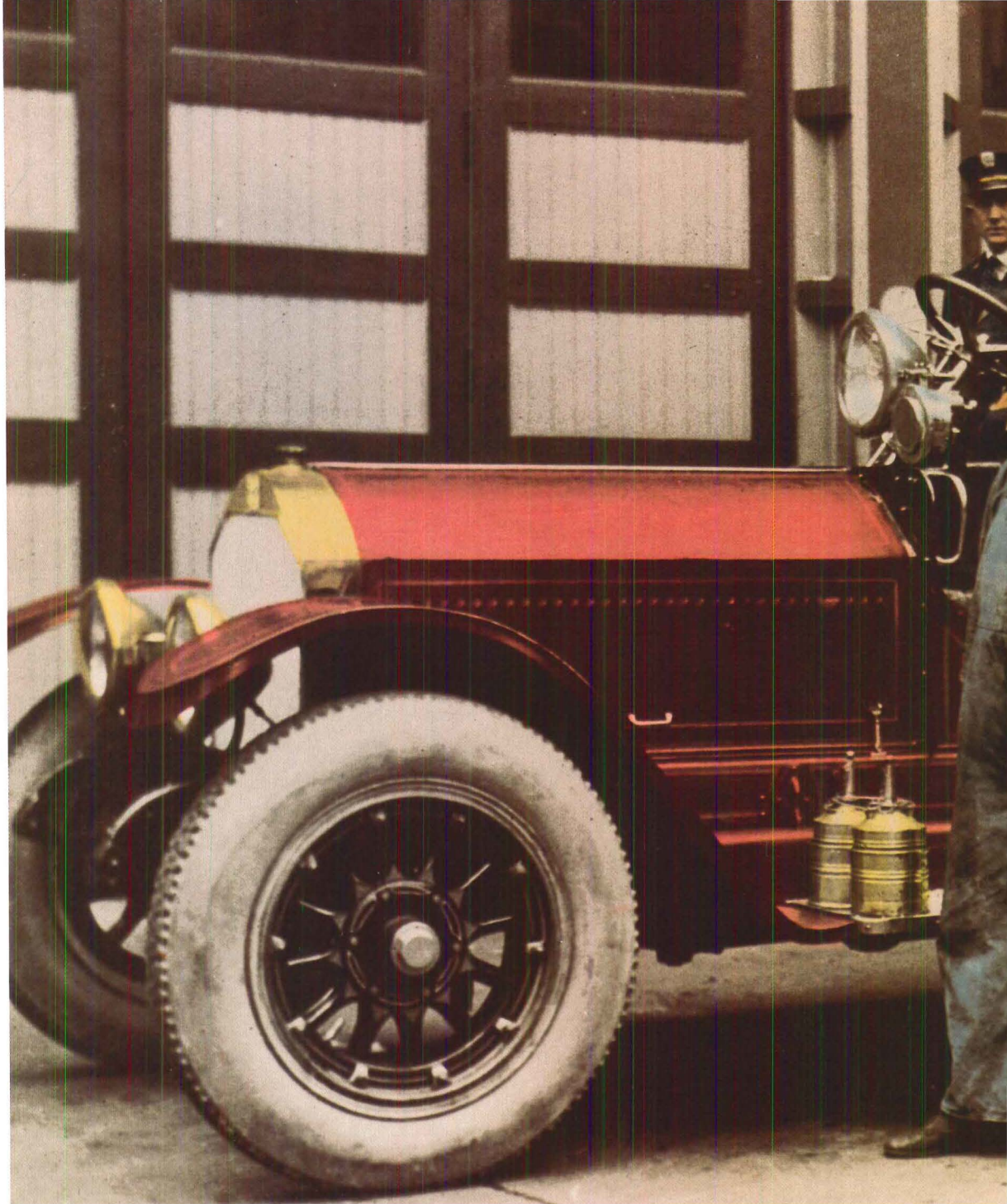


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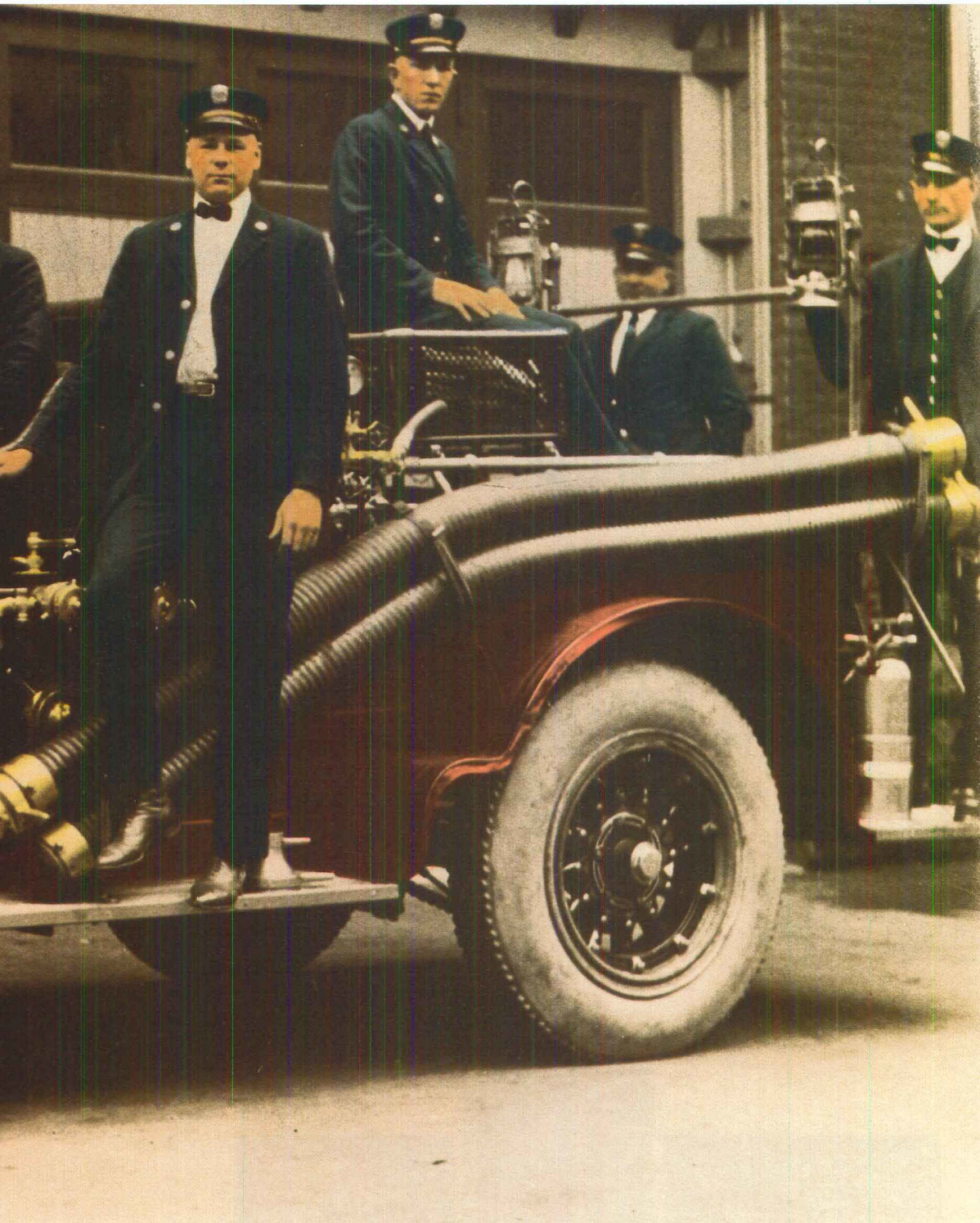
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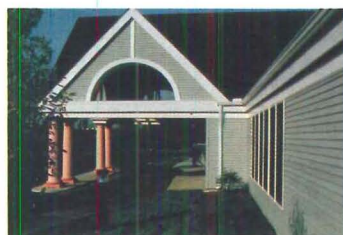
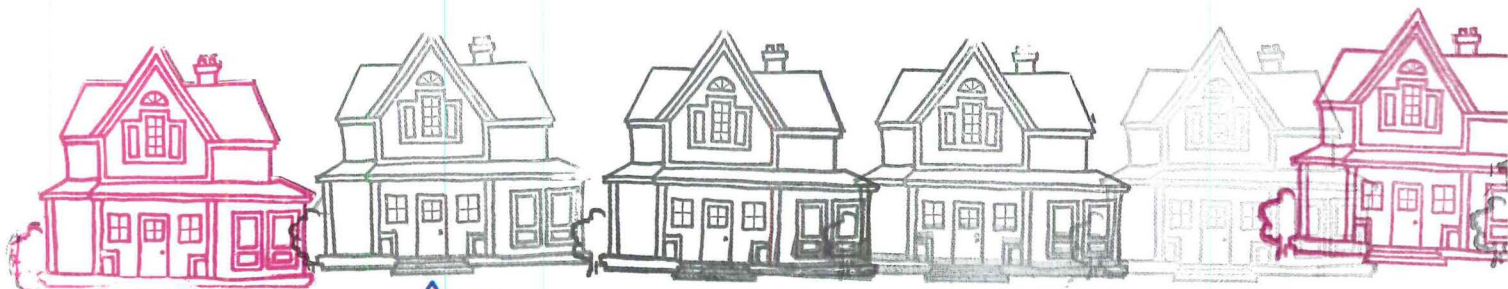
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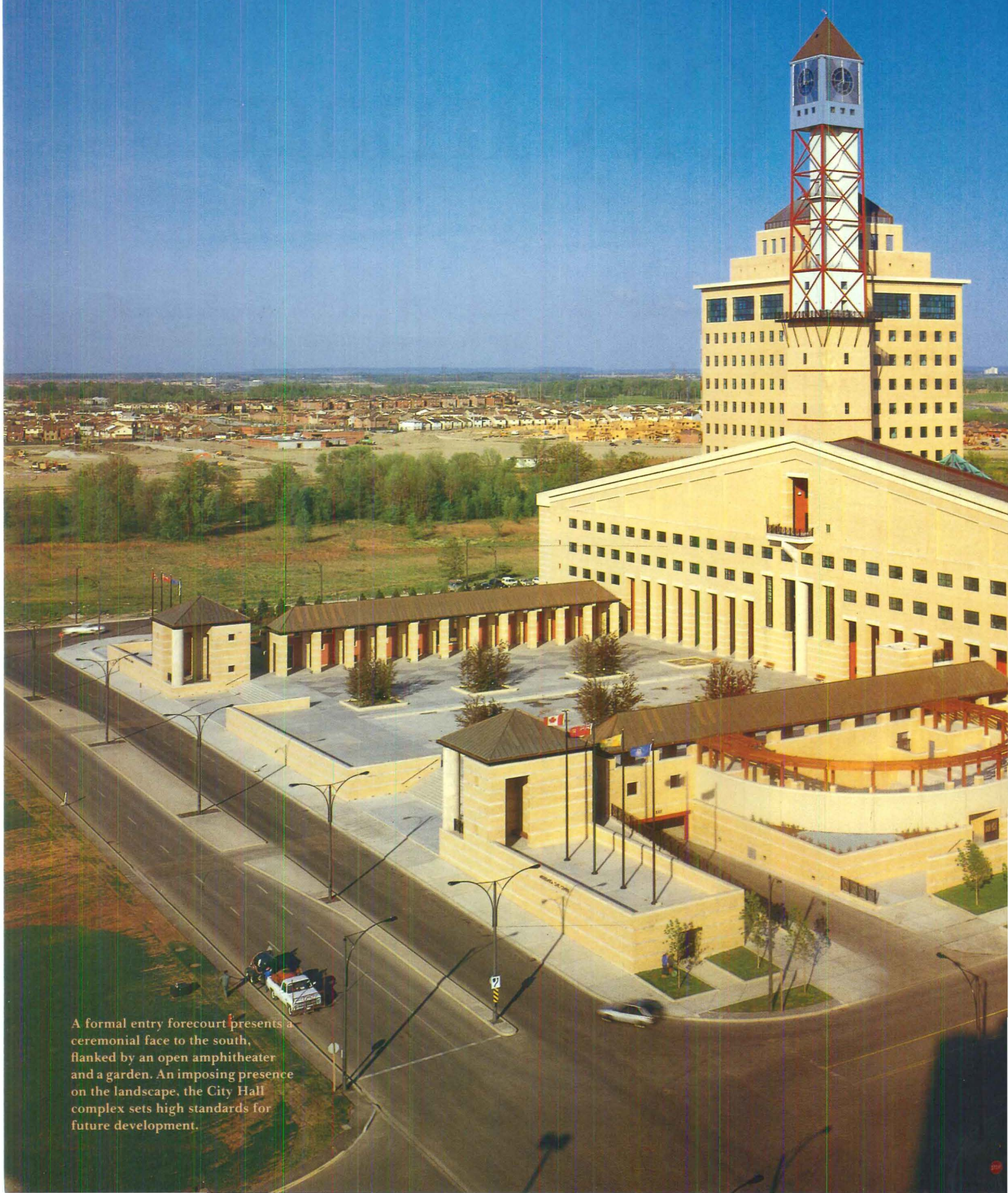


# City Image

Winner of a Canadian competition and a P/A Awards Citation, a new center for city government by Jones & Kirkland combines urban form and rural forms to make a focus for an aspiring city.







A formal entry forecourt presents a ceremonial face to the south, flanked by an open amphitheater and a garden. An imposing presence on the landscape, the City Hall complex sets high standards for future development.





As a city, Mississauga, Ontario, lives in the shadow of its eastern neighbor, Toronto. An aggregation of three previous towns—Mississauga, Streetsville, and Port Credit—it had experienced pronounced growth by 1974 as Toronto suburban patterns spread ever farther west. For all its intentions, the city still had no real center; but in 1982, Mississauga invited all Canadian architects to enter a national competition for the design of a new city hall and civic square.

Chosen from among 246 entries, a scheme by Jones & Kirkland of Toronto won unanimous acclaim from the jury, chaired by George Baird and comprising architects Phyllis Lambert, Jerome Markson, and James Stirling along with Mississaugans Russell Edmunds and Douglas Kilner. Jurors for the 32nd P/A Awards competition also recognized the project with a Citation (P/A, Jan. 1985, p. 101). The design realized, Mississauga now has a centerpiece of considerable note, even if the city around it cannot be described as a scintillating example of urban design. The area is only partially developed, with farmland giving way to some all too typical midrise construction embodying none of the quality urged by the new City Hall.

As land in the province developed, a tradition of facing prominent buildings south, toward Lake Ontario, emerged. Jones and Kirkland wished to recognize that tradition and to make reference to the agrarian forms found in the farms that still dot the surrounding countryside. Directly north of the site selected for the new facility, adjacent land is undeveloped and is scheduled to remain so. Uninspired new housing being built a few blocks to the south and the west, however, testifies to the city's lack of control over future growth.

Mississauga, like the rest of the province, developed along a series of roads designated locally as concession roads in the 19th Century. Growth outward from Toronto thus had a logical network, but the otherwise unremarkable countryside presented almost no clues from which to generate a parti. This "nowhere situation," as the architects described it, caused them to consider creating a self-contained "city," one that drew little from its surroundings. It would have a south-facing front, and a town square, with city departmental offices as its fabric, a lobby and council chambers, its public buildings. The architects acknowledge that, in hindsight, a fair amount of the architectural language in their initial thoughts derived from Asplund's Lister County Courthouse and Stockholm Public Library of the 1920s.

These ideas began to form before the explicit competition guidelines were made available, but remained part of the thinking later. As the site is virtually the dividing line between "city" and "country," the more formal face expresses its civic role on the south and begins the rural metaphor with its barnlike silhouette. In his review for the documentation of this competition (Rizzoli, New York), architectural educator, historian, and writer Trevor Boddy sees the cluster of forms as the house (office tower), windmill (clock tower), and either silo or water tower (council chamber).

#### A Civic Presence

Noting the egalitarian intentions of so many public buildings in recent years, the architects were striving for something more expressive; agrarian recall notwithstanding, Jones & Kirkland were also working toward a presence, a return to the monumentality they believed fitting for a civic centerpiece. It is a vast understatement to say that the bridge between the obvious need to make a civic statement and the desire for farmyard imagery is difficult to build. Equally challenging when pursuing this imagery is the fine line between appropriate regional aspirations and being too literal with the allusions. Jones & Kirkland have walked that risky line with consummate skill.

While there is not as yet any development immediately to the south of the City Hall, the stage is set for something of importance; the strong axial south forecourt plaza and pool, surrounded on three sides by grand arcades, top a plinth five feet above grade that establishes the distinction from its surroundings. The pavilions and ramps that mark the ends of the arcades are vertical circulation for and expressions of the underground public parking facilities. With double access onto the plinth from the south, a raised center podium is formed, from which dignitaries can be expected to address audiences massed in the park space beyond. It is a grand entrance, one that



accomplishes the desire for civic monumentality for the complex. Flanking the arcades are a formal garden to the west and an outdoor amphitheater to the east. Selected square openings along the east and west walls of the arcades allow brief glimpses through to the spaces outside the forecourt. Recognizing that the climate in this area really presents only two seasons, one hot and the other cold, the design calls for the pool and fountain to be used for ice skating in cold weather, thus encouraging public use in both seasons.

Scaled to address Burnhamthorpe Road, a major thoroughfare south of the site, the long thin office slab is pierced at the main entry and again above it, where the opening goes completely through the "wall" to reveal a glimpse of the pyramidal skylight above the Great Hall. Behind this imposing mass are grouped the other programmatic and referential elements: the cylinder of the Council Chamber, the office tower, the clock tower, and the profile of the Great Hall. Passing through the entry foyer and hall, the visitor arrives at the first great space and "civic square," the hall under that pyramid. The central element of both the direct south-north axis and the strong east-west circulation axis, the Great Hall links the office tower's Grand Stair to the Council Chamber. Rich green marble and black granite line the walls of the imposing space. An arched "bridge" forms the opening to the space at the south side, a connection denoting the main circulation pattern for the offices above. In the center of the entry opening is a conservatory with six massive columns—to be living gardens of moss, which promises to recall a botanical version of Karnak when mature.

### Circulation Priorities

• If there is any anticyclimatic element in the complex, it might be the Grand Stair west of the Great Hall, the ceremonial access to the office block. It is truly monumental and beautifully detailed, but instead of leading to an equally grand end, it simply stops, turning the visitor to the right and into the office tower elevator banks. As it proceeds upward, the skewed boundaries of the stair force the perspective and heighten the effect very well; although originally accepted with no center rail, the stair's great width at the bottom has resulted in the call for an intermediate railing, being installed now. This will not spoil the beauty of this space nor the grandness of the stair, but the climb deserves a better finale.

By contrast, the ride up the escalator east of the Great Hall, while less ceremonial, introduces the visiting public to the most ceremonial space of all—the Council Chamber. Visible from the bottom of the escalator, the painted blue "sky" of the chamber is an invitation to journey up to the center of town government. It is as if the Grand Stair and the escalator were misplaced in each other's positions.

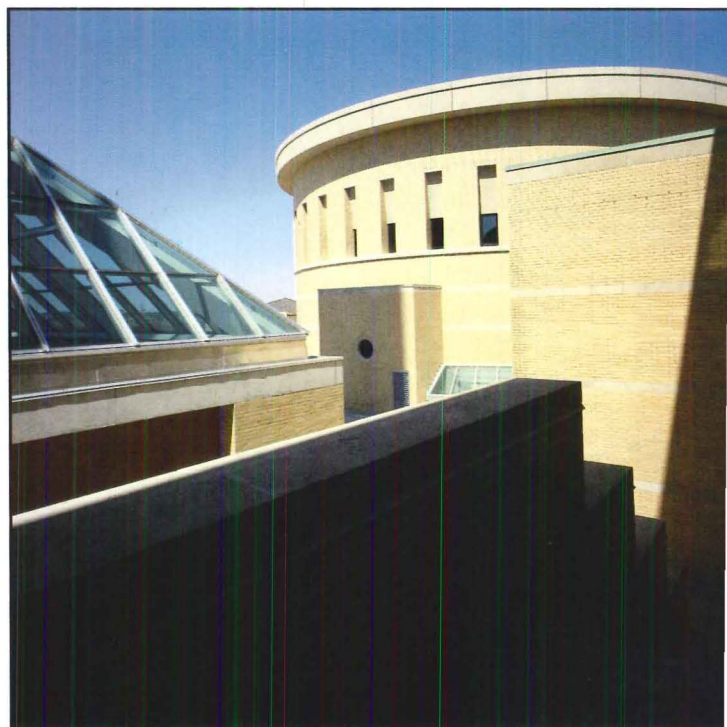
Rising above the council members' parking facilities, the Council Chamber is the inner sanctum, another imposing space that seems a perfect place for the business of governing. It is not a dark, somber place as some such facilities can be, but a light, proud hall encircled at the top by a ring of clerestory glazing that casts light up and out to the astrological scene on the lofty dome. Fiber-optic "stars," impossible to detect when not illuminated, dot the firmament. Below the dome, the main body of the chamber is ringed by paired columns, and the light wood millwork and seating are offset by deep red upholstery fabric and carpet. While it is clearly for conducting official business, it is an optimistic hall not a monastic or dictatorial one.

Begun as a square brick pier, the clock tower grows into a steel-framed mast at first enclosing and then topped by steel panels with a copper roof. Unlike anything else in the complex, it is strikingly Gehry-esque in detailing, if not in massing. Access to the tower is gained either by a single elevator or across a ramp from the employee cafeteria at the top of the office tower. A somewhat related projection on the west façade of the office tower, fondly called "the beak" by the architects, extends the floors as places for reception or conference rooms. Although foreign to the vocabulary established by the rest of the complex, these accents are easily accepted as visual enrichments to the mix of forms.

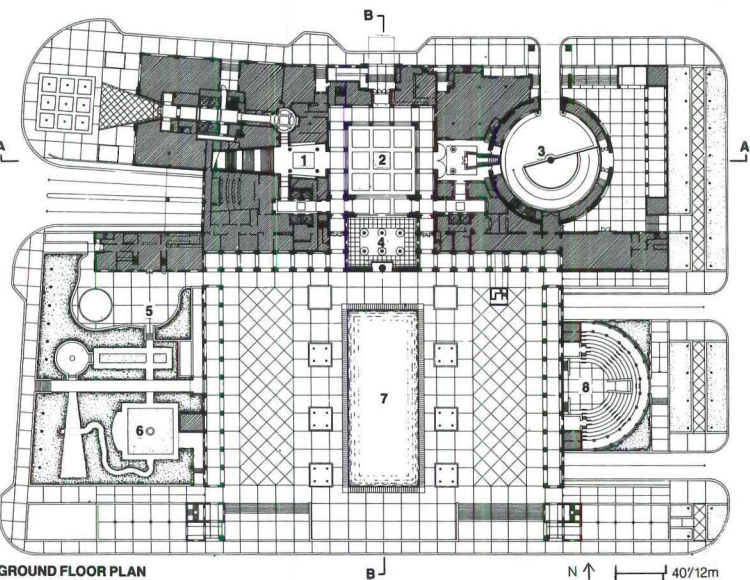
Careful attention to detail, and to the continuity of that detail, is obvious throughout. While the materials change according to loca-

Behind the wall formed by the long, narrow front building are elements meant to recall forms found in the rural area, which is gradually being taken over by development. The Council Chamber is expressed by the drum shape (below and facing page), the Great Hall by the pyramidal skylight; copper roof shapes cap the office tower and clock pylon (bottom). All of these components are rooted in the same brick, although two main features—the clock tower and the prow on the office tower—take on their own vocabularies as they rise. Knowingly willful, these elements serve to heighten the effect of a grouping of buildings, either agrarian or urban in origin.

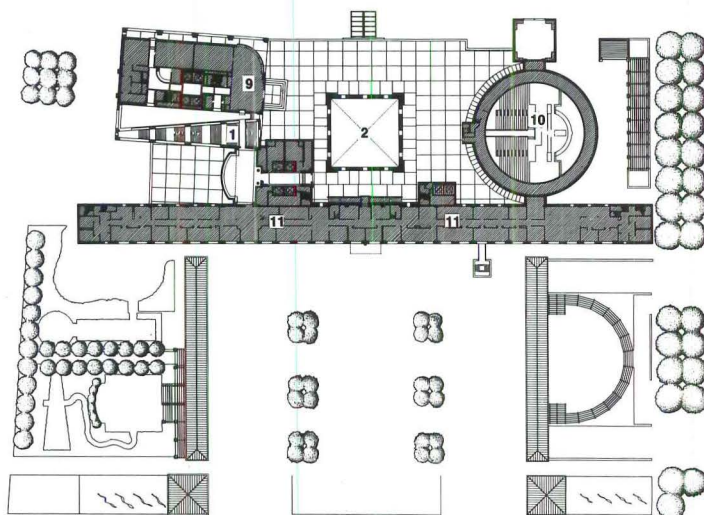
Vehicular dropoff entrance to the complex is on the north side (canopy, facing page), with a much less ceremonial but more direct access to the Great Hall. This aspect is purposely more fragmented, facing the undeveloped area that adjoins the site. The Council Chamber drum sits atop the podium surrounded by a small plaza, with Council parking below, while the remaining elements of the building continue on down to grade. The band of windows at the top of the office tower is in the cafeteria; at the top of the Council Chamber cylinder are clerestory windows that cast indirect light on the dome inside.







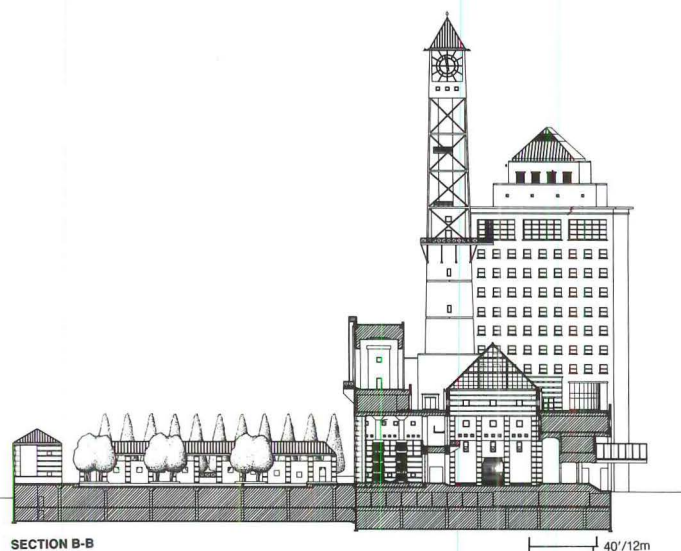
- GROUND FLOOR PLAN**
- 1 GRAND STAIR
  - 2 GREAT HALL
  - 3 COUNCIL PARKING
  - 4 CONSERVATORY
  - 5 PLAY YARD
  - 6 GARDEN
  - 7 REFLECTING POOL
  - 8 AMPHITHEATER
  - 9 OFFICE TOWER
  - 10 COUNCIL CHAMBER
  - 11 OFFICES



**FOURTH FLOOR PLAN**



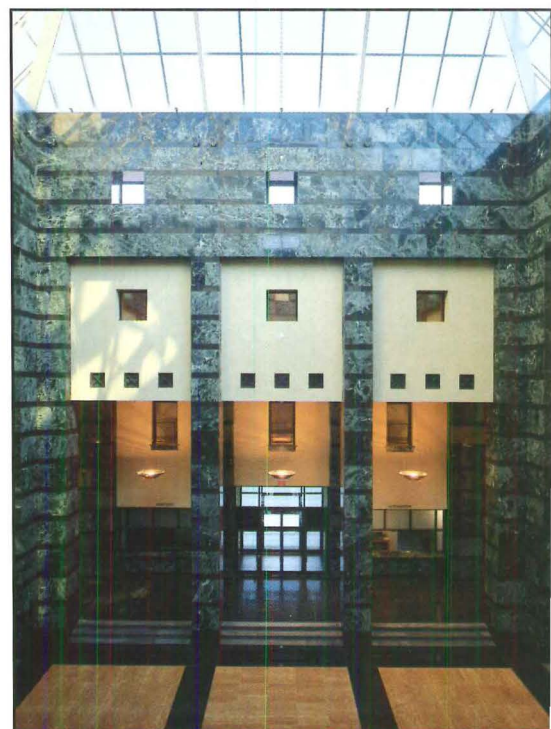




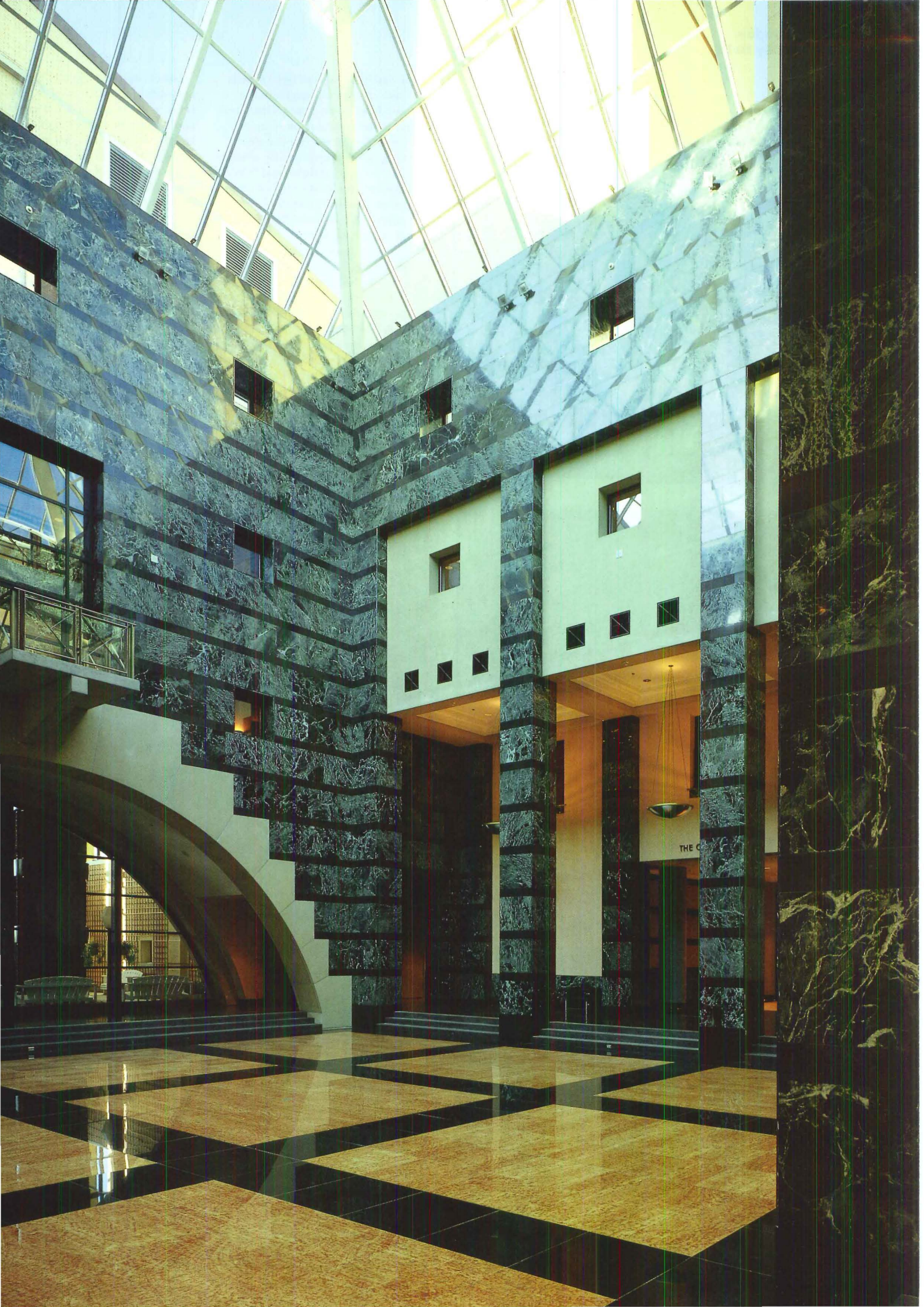
Carefully detailed Grand Stair (below left) forms the western end of the circulation spine leading to the office tower. By narrowing the stair from bottom to top, the architects have foreshortened the perspective, emphasizing the already large volume. Horizontality of the space is also stressed by the banding of the walls, the handrails, and the custom lighting fixtures.

Section (left) is cut along the north/south entry axis that bisects the Great Hall (below right and facing page). Side arcades flank the hall (bottom right) on the east and west sides. The arched opening forms both the stately entry to the hall from the main entry side and the bridge over which passes the upper level east/west circulation.

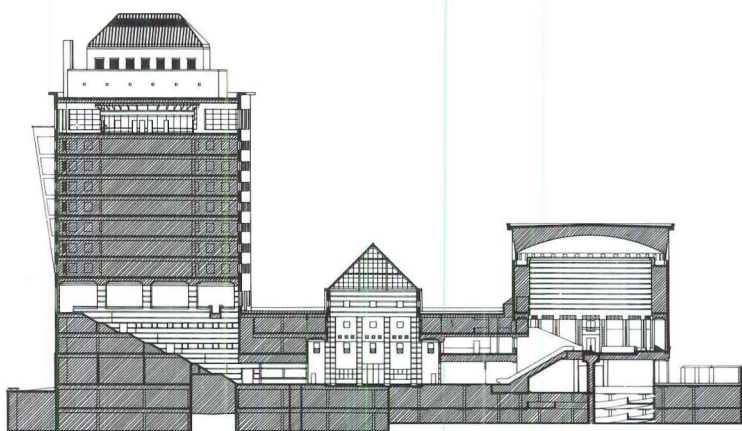
Two of the major spaces in the facility, the Grand Stair and the Great Hall form an in-line progression to the Council Chamber. The Great Hall is seen by the architects as the "town square" of the complex, a winter counterpart to the forecourt in front of the building. Rich marble and granite combine with changing light patterns and hues to vary the feeling of the space. Beyond the arch is the conservatory between the dual entry doors, punctuated by columns designed to be clad in moss when the plants mature.











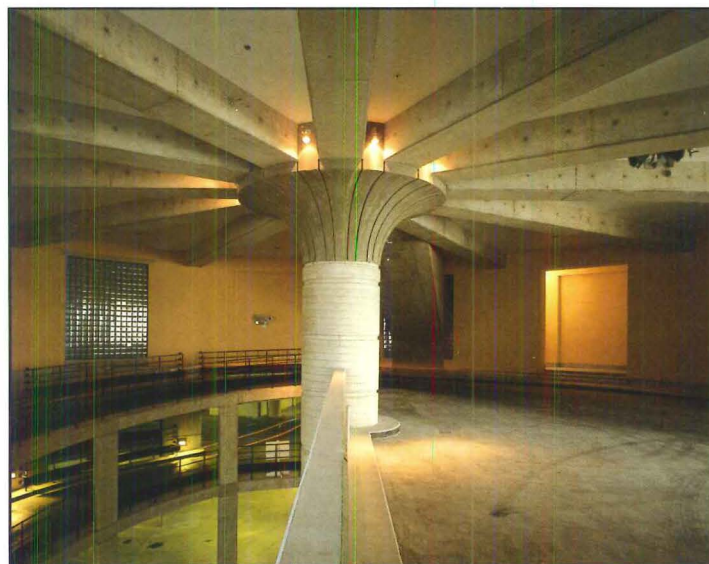
SECTION A-A

40'/12m

The east/west section (left) clearly defines the circulation from the Grand Stair down through the Great Hall to the escalators serving the Council Chamber. The chamber (facing page) is crowned by a dome (below left); a hand-painted "sky," lighted by day by the ring of clerestory windows around the cylinder, by night with artificial lighting and fiber optic "stars."

Supporting the chamber is a column, consciously overscaled by the architects (bottom left), around which the auto circulation for the council parking rotates. Within the chamber itself, light wood and deep red upholstery and carpet form a visual base for paired columns supporting a frieze displaying the names of the various previous jurisdictions that formed Mississauga, the city. Banding on the upper walls promotes the illusion that the cylinder decreases in concentric rings as it rises toward the "sky."

Other important spaces in the complex include a formal reception room, with furniture that is modular and rearrangeable, and the cafeteria atop the office tower (below and bottom right). One access to the clock tower is gained at mid-level from the cafeteria, through the doors in the background, although few will probably be venturing up to view the clockworks.









(continued from page 72)

tion and function within the complex, thought was given to carrying over either materials or forms of detailing. The most ceremonial areas are celebrated with the most elaborate palette: Marble and granite together grace the Great Hall, while areas leading off of it might have stone detailing combined with more humble materials. The stone gradually gives way to woodwork with the same details, then to more modest recall elements.

Offices in the long front building, floors of which are sometimes occupied by single departments, line what is easily one of the longest corridors in memory. Yet somehow, the effect is not disturbing; views out occur along the route, and areas for seating and reception punctuate the length. At the base of this building the west end contains a daycare facility, which opens out onto the lower terrace of the garden. This level operates as the play area, while the upper terrace is the more formal garden. Gates from the front sidewalk and the west arcade allow access to the garden, and from there into the play yard.

Altogether, the Mississauga City Hall complex is an extraordinary accomplishment and a bold, fresh piece of architecture. It has been charged by one Mississaugan with being a knockoff of Leon Krier's 1978 proposal for a school at St. Quentin-en-Yvelines, France. While there are some discernable and powerful resemblances, Krier himself wrote to the citizen (who then questioned the authorship of the letter) stating that this was, indeed, an original work, and not a secondhand rework. Still other voices are bound to label the design with that most awful of epithets, Post-Modern. As that term gets harder and harder to define, it will no doubt be applied to more and more projects. But the preferred reading, it would seem, might be somewhere ahead of that label, perhaps toward the new regionalism that Trevor Boddy identifies.

Jones & Kirkland have provided Mississauga with a landmark, and a reason to look very carefully at future development. The opportunity to provide a significant center for the yet-to-be city is still very much alive, if weakened by some of the accomplishments in the vicinity recently. It is an opportunity that should not be missed.

**Jim Murphy**

**Project:** Mississauga City Hall, Mississauga, Ontario.

**Architects:** Jones & Kirkland, Toronto (Edward Jones, Michael Kirkland, Steve Teeple, Bernard Gillespie, Gerry Lang, Max James, Kit Wallace, and Mark Sterling, project team).

**Client:** The Corporation of the City of Mississauga.

**Site:** an entire six-acre urban block, formerly agricultural land, now bounded by streets on four sides; flat and relatively featureless.

**Program:** entire city hall, comprising major hall, council chamber, executive offices, cafeteria, fitness center, meeting rooms, art gallery, wedding chapel, conservatory, day care center, presentation theater, and temporarily leasable space. Total area 626,000 sq ft, including underground parking for 624 cars and outside plazas, gardens, and amphitheater.

**Structural system:** reinforced concrete frame and footings, with steel framing for clock tower and canopies.

**Major materials:** Roman face brick, precast acid-etched concrete banding, batten seam copper inclined roofs, acrylic stucco, and metal siding (clock tower), exterior; Verdi Alpi marble, black polished granite, acrylic plas-

ter, terrazzo, and gypsum board, interior (see *Building Materials*, p. 137).

**Mechanical system:** gas-fired boilers provide heat through perimeter elements, cooling through variable air volume/dedicated air handling systems.

**Consultants:** M.S. Yolles and Partners, structural; The Mitchell Partnership, mechanical; Mulvey & Banani, electrical.

**Construction manager:** The Jackson-Lewis Company, Ltd.

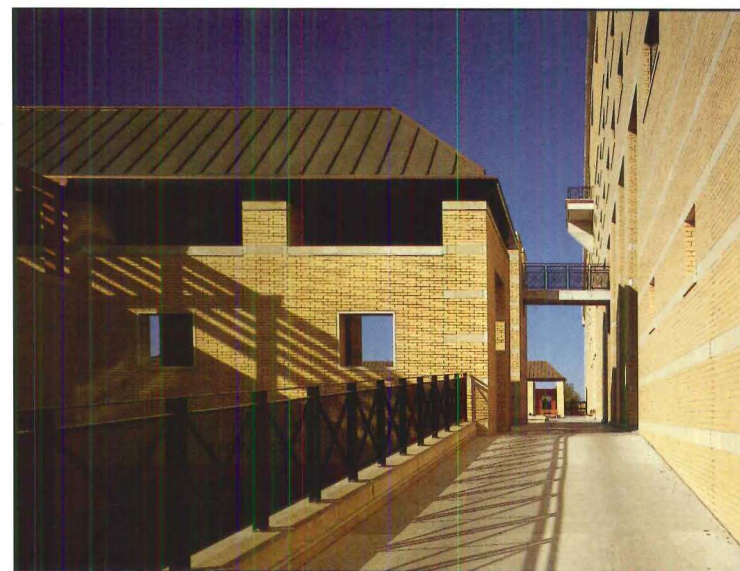
**Costs:** (serial tenders, 1984-87) \$58.5 million; \$110 per sq ft including two basement parking levels.

**Photos:** Robert Burley.

Entry into the amphitheater east of the forecourt (below) is through grilled gates typical of outside gates throughout the complex. The wood pergola will be covered with vines, as will the piers of the forecourt arcades. One of the many axes or view corridors in the facility, the walk between the forecourt and the south building (bottom) passes beside the amphitheater and through the court to the play area of the garden.

Some of the client representatives wanted the copper roofs treated to achieve their patina immediately, but the architects convinced them to let the process occur naturally. Banding of the brick was accomplished with high quality acid-etched precast concrete, rather than the preferred stone, because of budget; the effect is quite close to the original intent.

Massing of the south front makes a powerful impression when proceeding through the forecourt (facing page). The strong axes of the arcades and the recessed entry intersect at the building face, beyond which the banded Roman brick is exchanged for colored acrylic stucco wall surfaces. Copper beech trees will supplement the vines on the arcades to soften the plaza.









# Parliament House Update

Planning for Australia's new Parliament House began in 1965, and Mitchell/Giurgola & Thorp won the commission in 1980. Next year, the vast structure will open to the public.



John Gollings © PHCA

"I hope . . . that the children of our children will see an Australian federal city that will rival London in population, Paris in beauty, Athens in culture and Chicago in enterprise." [King O'Malley, politician and founder of the Federal Capital Design Board, 1903.]

FROM Australia's federation at the turn of this century, plans for a capital city have evoked grand visions. The announcement of Mitchell/Giurgola & Thorp's winning scheme for the design of Australia's new Parliament House in Canberra (P/A, March 1981, pp. 88–95) has brought Australia's capital city closer to the realization of one of these visions: an appropriate landmark for a nation celebrating 200 years of European settlement. The new Parliament House has moved beyond the solution envisioned in the winning scheme, to a building nearing completion that is sensitively integrated with the site and looks to be coherent and consistent at every scale.

From the air, Canberra's plan has a striking graphic clarity. The strength of Walter Burley Griffin's original design for the city is clear, despite some unfortunate recent architectural accretions of dubious quality. The New Parliament House, located at the apex of Griffin's projected parliamentary triangle, reinforces and consolidates its focus, Capital Hill. Griffin's influence on Giurgola is evident in the great crescents and the form of the flag mast that amplify the original scheme for a simple but monumental Capital Hill. Drawings and models of the New Parliament House are indicative of the integration with Canberra's natural topography, which formed the basis for Griffin's plan, as well as Canberra's present built form. However, these cannot convey the powerful sense of place that Giurgola has created. It is this very particular sense of place that is the most striking aspect of the building.

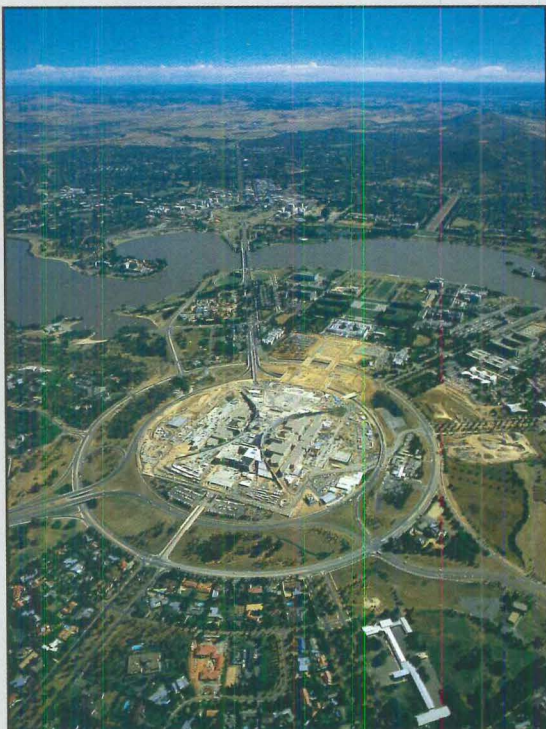
On the ground, the view down any avenue leading to Capital Hill offers an intriguing juxtaposi-

In a view down Anzac Parade, Canberra's ceremonial avenue, across Lake Burley Griffin towards the Parliamentary Triangle, the provisional Parliament House (1927) at the bottom of Camp Hill provides visual base for the crane-framed new Parliament House rising on Capital Hill (above left). The colorful stainless-steel flag mast, the pivotal visual focus of the parliamentary triangle and land axis, now serves as a readily identifiable symbol of the city of Canberra (facing page). The building's roof, an accessible grass slope, will further unite the new Parliament House to the green of the Parliamentary law-

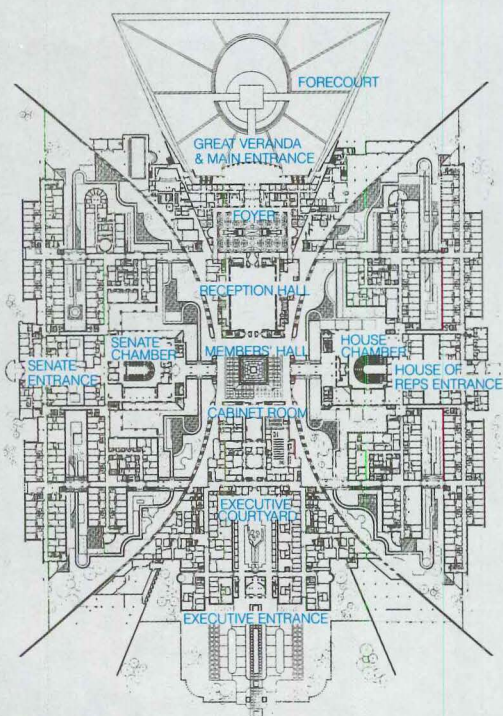




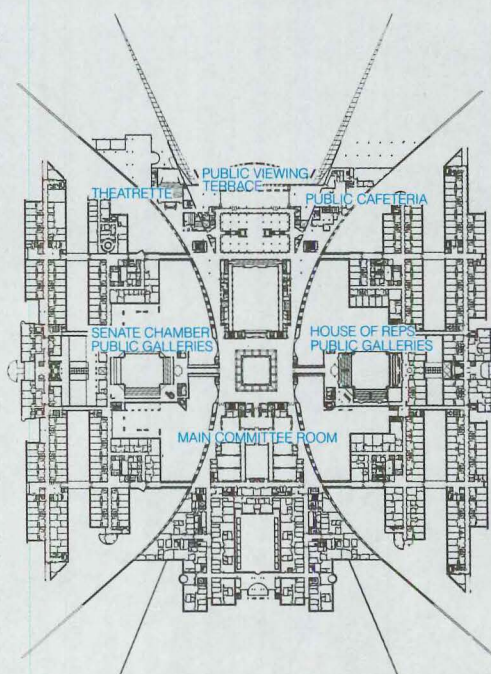




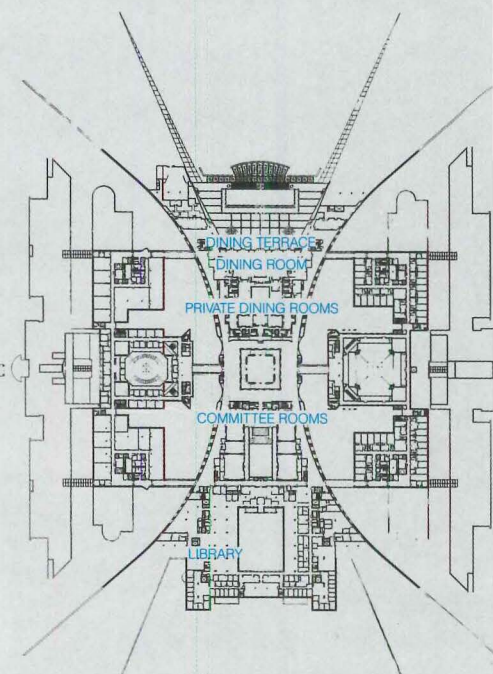
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FIRST FLOOR



SECOND FLOOR



THIRD FLOOR

N 300' 10"

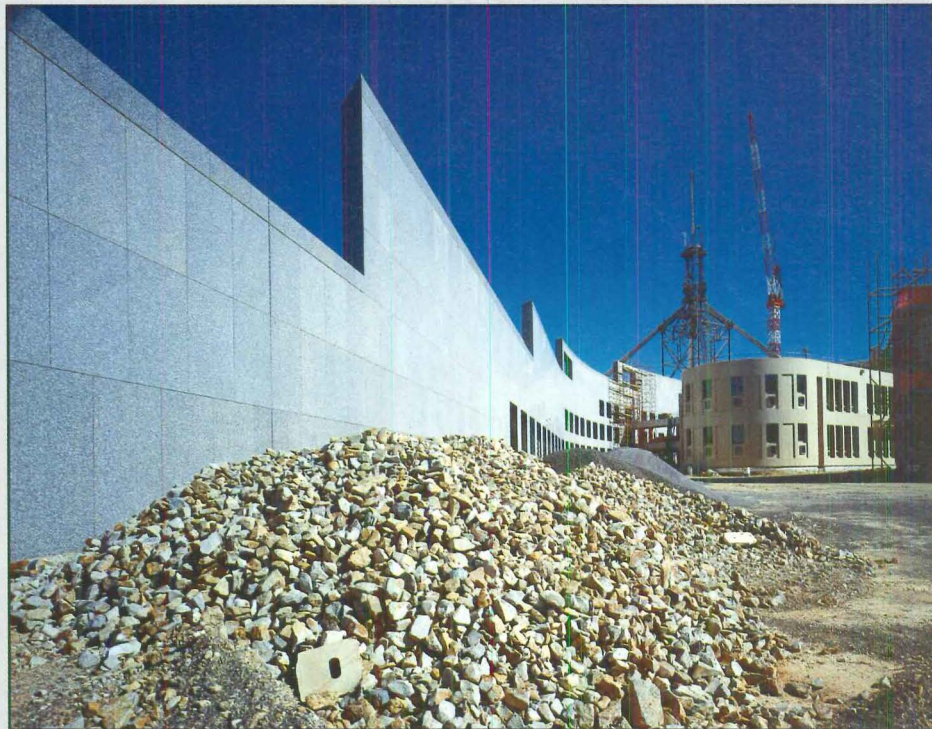
tion of building and landscape. Site work and building construction are complete enough to give a sense of the building's monumental scale and reveal Giurgola's ability to create a form, or rather a collection of pieces and places that overwhelm neither the site nor its surroundings. From the base of Capital Hill the most visible elements are the forecourt, verandah, and flag mast; the rest of the building is an extension of the green slope of Camp Hill and the Mall. This built landscape—in effect the roof of the building—is pierced by enclosed terraces and pyramidal skylights and is crowned by the flag mast. From this vantage point, there is a wonderful vista of the parliamentary triangle and views of surrounding Canberra. As the grass roof of this building will be literally an extension of the great lawn of the Mall, the public will have easy access to the slope. The offices and chambers of the Senate and House of Representatives, nestled in the curves of the crescents, are visible from King and Commonwealth Avenues, but are most prom-

inent when viewed from State Circle. But for the backdrop of the monumental crescent and flag mast, these workaday offices are relatively unassuming in massing and material. However, their refined rhythms and details give them a dignified presence. The flag mast is without doubt the most visible element of Parliament House. The image is memorable; it has become the symbol of Canberra.

A unique configuration of architecture and landscape is now emerging. The fragmentation of the building elements has created a varied series of courtyard spaces. The forecourt is a landscape place, a piazza; the executive courtyard is an architectural space, a cortile. This in conjunction with skylighted interior spaces creates a sequence of transitions or contrasts of light and shade, of enclosed and open, of exterior and interior, and of landscape and architecture. Giurgola has created a procession of spaces and places that can only improve with the completion of the interior and exterior finishes.

**Like a relief map, an aerial view of the site (top left) and building under construction gives clues to its three-dimensional organization as well as its integration with the site's topography. The simple, pyramidal-punctuated geometry of the Senators' and Members' Terrace (top right) enhances some of the building's principal materials, stone and glass, and sets them in contrast to Canberra's clear blue skies.**





Max Dupain



Max Dupain

The forecourt of Parliament House, situated on the edge of Capital Hill, provides a dramatic transition between the public mall and public buildings of the Parliamentary Triangle and the public spaces of the new House. Here, protected by the ends of the two great granite-faced crescents that shape the building, the architects have acknowledged Australia's Aboriginal heritage. A competition was held among Aboriginal artists for a mosaic centerpiece for the fountain, the focal point of the forecourt. The winner's design uses traditional symbols to depict an Aboriginal meeting place. The pinkish-gray granite of the forecourt will mediate between the green of the mall and white-marble-clad verandah, the public entrance to the building.

Beyond the forecourt and entrance verandah is the enclosed hypostyle foyer. In its present state, this stone-clad space with minimal daylight has a mystical preclassical feeling. Grand marble stairs on the side of the foyer lead up to the public circulation level. Beyond the foyer is the largest interior

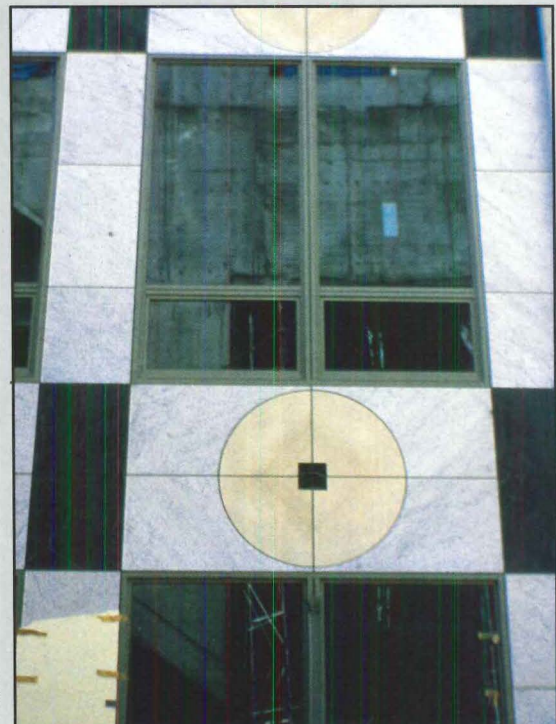
space, the reception hall. In contrast to the foyer, this hall will be filled with daylight, filtered through an elaborate ceiling monitor, illuminating panels of indigenous wood that ring three sides of this vast, column-free room. An immense tapestry based on a landscape by the Australian painter Arthur Boyd will hang on the end wall. This space, primarily used for parliamentary and public functions, will be open to public view from second-floor galleries. The next main space is the Members Hall. It is situated at the center of the building underneath the flag mast, which will be visible through the skylight. To either side of this great glass-roofed courtyard space, past the crescent walls and courtyards, are the two chambers. The quantity and quality of natural light in these chambers can already be appreciated. But it is the clarity of sequence, the logical progression of indoor spaces and outdoor places, that leaves a memorable impression—a significant achievement in a building of this complexity.

**The Great Verandah (top left), soon to be topped by Australia's official coat of arms (a seal flanked by a kangaroo and an emu) mediates the space between the open forecourt and the enclosed foyer within. Polished gray granite clads the sweeping boomerang-curved walls that unite the various elements of the building (top right). A public terrace, which overlooks the Great Verandah and forecourt, is set a level below the Members' Terrace (above left). Between the offices and chambers set within the concave crescents are a series of landscaped courtyards that, despite the scale of the overall complex, are intimate and comfortable in scale (above right).**





A. Taylor



A. Taylor



Walking through an incomplete building allows certain privileges. The inner workings are laid bare. In a building effort of this scale and importance, what is immediately noticeable are quantitative matters such as organization of materials, trades, and services. However, what is equally impressive is that qualitative concerns, such as pride in work, are not only apparent where one would expect, for example in the highly finished ceremonial areas, but are clearly visible in the services and structure that will eventually be covered, and in many areas that will be well hidden from the public.

During the next year leading up to the opening, the most dramatic and perhaps exciting changes will occur as the fine arts program, which includes the work of a diverse group of craftsmen and artists, will finally be brought together. Beyond the completed architecture and landscape, there will be an extensive display of Australian art, craft, and furniture design within the fabric of the building. Included in this collection is the Aboriginal mosaic

in the forecourt, the giant tapestry in the reception room, the stainless steel coat of arms above the entrance portico, the wood marquetry ceilings, the furniture and fabrics. The building will be pivotal in the development of architecture and building in Australia and also for pride within Australia for its extraordinary abundance of indigenous design and craftsmanship.

There is pleasure in strolling through an unfinished building, which often seems like a kind of modern ruin. Architects have long been fascinated with ruins because they allow the imagination to wander. Walls are partially covered, floors and ceilings incomplete, daylight penetrates spaces otherwise dark. Areas inaccessible once the building is complete and security restrictions are enforced are open to view. The basement, for example, is a labyrinthian network of service "tunnels" that crisscross the entire site. The general public, however, will never be aware of such places, or have access to them.

Austere cast stone panels (top left) and more richly patterned marble (top right) give a sample of the variety of exterior finishes that are regulated by a unifying proportional system. The Italian marble of the foyer, reminiscent of some of the firm's earlier work, also represents the traditional green and red colors of both houses of Parliament. Under the flag mast is the central interior space, the Members Hall (facing page, top). The vast skylight, through which the flag mast is visible, becomes a ceremonial link between the daylighted chambers (facing page, bottom left). Circulation along the granite crescents offers vignettes of courtyards and various building configurations (facing page, bottom right).

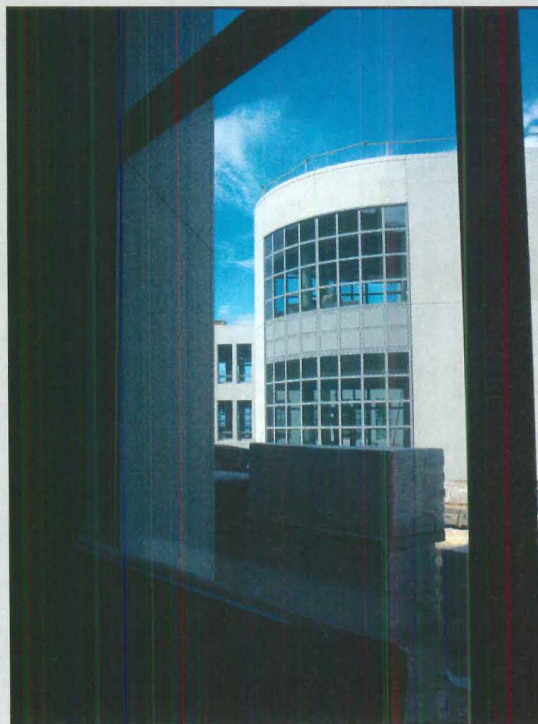




A. Taylor



A. Taylor



Grant Marani/Anne Rieselbach

In the context of Mitchell/Giurgola's own work there are identifiable developments of ideas, forms, and use of materials. What is distinctly different, and can be directly attributed to the scale of this building, is the juxtaposition and combination of architecture, courtyard, and garden. Giurgola has created spaces and places based on European precedent, but they are also firmly rooted in the wide expanses of the Australian landscape. This cross-cultural referencing will also be expressed in the use of European stone alongside indigenous Australian materials. It is still too early to appreciate the total design; the fragments can only whet our expectations.

Grant Marani, Anne Rieselbach

Grant Marani, a registered architect in Australia, is an Associate of the office of Robert A.M. Stern in New York. Anne Rieselbach, whose Master's thesis is on Marion Mahony Griffin, is Program Coordinator of the Architectural League of New York. They recently visited Parliament House.

**Project:** Parliament House, Canberra, Australia.

**Architects and interior designers:** Mitchell/Giurgola & Thorp Architects (Rinaldo Giurgola, partner in charge; Richard Thorp, project architect; Hal Guida, Rollin La France, Michael Adams, Tim Halden Brown, Pam Berg, Philip Walker, Robert Pearce, David Stafford, Chris Alcock, Andrew McKenna, Steve Moseley, project team).

**Program:** a 250,000-sq-meter (gross area) parliamentary complex of legislative and executive houses, together with full office accommodation and support services. The original program required that the design be capable of expanding in the future as well as being able to support internal rearrangement. During the construction period the Government requested the expansion be implemented immediately. Other aspects of the original program included that it be fully functional, that it be symbolic of nationhood and be committed to democratic processes of government, that it be resolved within the project budget as approved from time to time, that it relate sensitively to its total environment, and that it be completed and occupied in time for the Bicentenary celebrations of 1988.

**Structural system:** reinforced concrete, cast-in-place and precast. **Major materials:** external panels of precast concrete inlaid with Australian stone; marble and granite facings over cast-in-place concrete; IRMA roof system with a built-up four-layer bituminous membrane; flag-supporting framework of stainless steel.

**Consultants:** Irwin Johnston & Partners, Melbourne, structural. Joseph R. Loring and Associates, New York; Norman Disney & Young, Sydney; W.E. Bassett & Partners Pty. Ltd., Sydney, associated consulting engineers for the Parliament House (ACEPH). Peter G. Rolland & Associates, New York, landscape. Concrete Holland Joint Venture, Canberra, construction manager. McLachlan Group Pty. Ltd., Canberra, project planner. Donald Cant, Watts, Hawes & Lee Pty. Ltd., Canberra, quantity surveyor. Maunsell & Partners Pty. Ltd. Canberra, civil engineering. **Client:** Parliament House Construction Authority.

**Costs:** \$950 million (Aust., 1987), including furniture, equipment, artworks, and sound and vision systems.



## Inside the Garden Wall



The chapel of St. Dismas (above), the patron saint of prisoners, stands beyond the walls of the Clinton Correctional Facility. Within those walls, a unique and complex system of recreational yards, known as the Courts, is built out of scrap materials, rocks, oil drums (used as makeshift cooking stoves), and inhabited by prison inmates (right). The small, roofed structures with numbers on their sides are occupied by prison guards.

**The “indigenous architecture” of a prison’s recreation yard exemplifies Joshua Freiwald’s investigation of a side of the built environment seldom seen in architectural photography.**

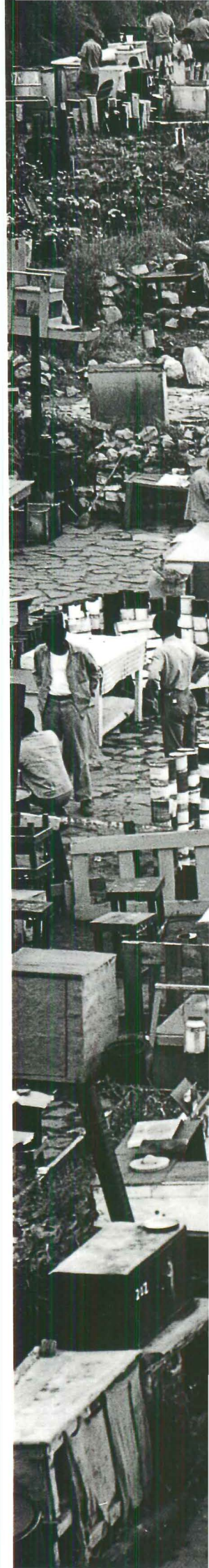
FOR nearly 25 years, Joshua Freiwald has photographed contemporary architecture. While his published work often depicted buildings at their idealized best, Freiwald’s outtakes, and his real interests, focused increasingly on the reality behind the spotless image. His critical eye invariably evoked the cultural, as well as the physical, context of the buildings it surveyed. At the same time, he was keeping a written account of what he saw, and this dual effort formed the basis for a book in progress, *The Perversion of the Garden*, a collection of photos and essays on the nature of modern architecture and the culture that has produced it.

Perhaps the most startling section of the book is devoted to the photographs Freiwald took in 1972 of the Clinton Correctional Facility in Dannemora, New York. Shown here are the Courts, a collection of small recreation yards, many of them decades old, built of stones, cans, oil drums, scrap lumber, and other ingeniously recycled refuse. Freiwald writes: “If they’re to be thought of as architecture, it’s an indigenous architecture . . . , more a response to a condition of servitude and survival, a simple territorial claim and its evolution, than a plan or design. . . .” The Courts embody the complex social system of the inmate population, where power is wielded by a select few whose influence is acknowledged by authorities and inmates alike.

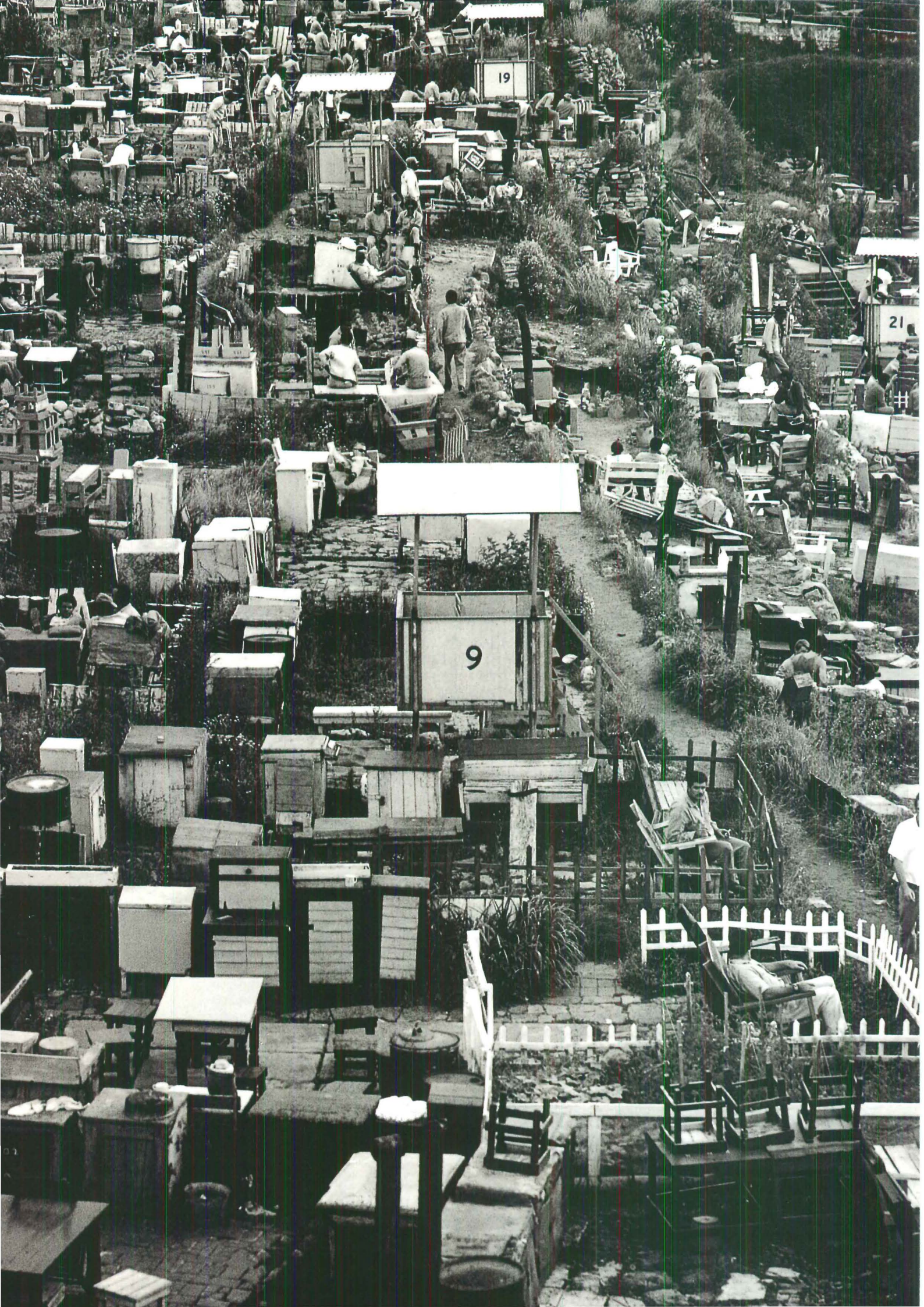
These improbable gardens, according to Freiwald, “. . . are not only inhospitable and unfriendly, a kind of bizarre or monstrous microcosm through which we can see something of ourselves; they also have to be considered and understood as a testament to human ingenuity, to man’s gregariousness, to his spirit and creativity in the face of adversity, to a will to survive and to his imagination. . . .” Resourcefulness and ingenuity, however, do not obscure Freiwald’s sense of the Courts as “an evil place that mocks the traditional idea of the civilized garden.”

The Clinton photographs, as well as many others, are included in a traveling exhibition of Freiwald’s work, entitled *Silent Witness*. It has already been to Los Angeles and Chicago, and is now headed for London, where it will open October 5 at the Royal Institute of British Architects.

Pilar Viladas









## P/A Profile Martorell Bohigas Mackay

THE firm of Martorell-Bohigas-Mackay, active in Barcelona for over a quarter of a century, has taken a leading role in the architectural life of that city, especially in the post-Franco era. Notably, after the first democratic municipal election, partner Oriol Bohigas became the personal advisor on urban affairs to the Mayor of Barcelona. He guided the establishment of policies for the reconstruction of Barcelona and commissioned private offices to execute numerous municipal projects, such as inner city parks for the relief of this very dense city (see, for example, P/A, Feb. 1987, pp. 64–65).

The firm of M-B-M itself was commissioned to design several buildings for the State of Catalonia, in keeping with the cultural and social aims of the government. A library in a rehabilitated farmhouse, and a school, both in fringe areas of the city, are shown on these pages. Both the school and the library intervention exhibit a gentle, humanistic, and accommodating Modernism. Also shown is a private house that displays a much more dramatic and—at first glance, at least—classically Modern form, but which reveals more eclectic influences upon closer examination.

The firm is also designing large, open-air pools in the Barcelona area, and has prepared a master plan for the 1992 Olympic Village (P/A, March 1987, pp. 45–46).

### Escuela Catalunya

Three smokestacks from an adjacent plant lend a dramatic profile to this simple, disciplined school built in a working class neighborhood of Barcelona. Materials—stucco, concrete block, some steel—are basic, bays are regular, and only the terrace in the caretaker's flat reveals M-B-M's characteristic double curve, a cubist/Corbusian guitar shape alluding to the architects' classical Modernist sympathies and found somewhere in almost all M-B-M buildings. But the careful modulation of light and the sensitive balance of solids and voids raise this building far above the ordinary.

M-B-M has designed a number of schools over the years, and has developed principles that are evident in this one, which, with 16 classrooms and four nursery school rooms, serves 500 children ages four to fourteen.

**Three buildings—a school, a library, and a house—by Martorell-Bohigas-Mackay exhibit the democratic ideals of the architects and their state, realized in eclectic modern form.**

To create a sympathetic environment, the classrooms are designed as houses along an inner "street," creating a villagelike atmosphere. In the Escuela Catalunya, the street has an almost open-air quality, as the translucent skylight (fiberglass top covering, PVC lower layer, with mechanical space between) allows the space to be suffused with light. At the south end, the street (or "nave") is cut off diagonally, creating a modern-day rose window that transmits an almost spiritual glow.

M-B-M tends to use the street not only for circulation, but for other functions as well. In the Escuela Catalunya, for example, the ground floor street was envisioned as providing library space. Also on the ground level, adjacent to the main stairwell, three side bays have been left open to the central street to provide an auditorium, incorporating the street and using the stairs themselves as seating or stage as needed. And at the south end, the street is used as communal play space for the youngest children. At the upper level, ledges along some of the suspended balconies serve as worktables.

Also important to M-B-M is the easy relationship between interior and exterior. At the school, the west side facing the playing fields is punctuated by vertical openings providing access from every room. At the south end, the diagonally cut wall creates a separate outdoor play area for the very young pupils.

The school was originally designed of industrial components, but the company providing the parts went out of business. While the concrete for the final building was cast in place, the original discipline remained, as did some of the components—the aluminum windows on the upper floor, for example, which, like the other openings in the building, incorporate sunshades.

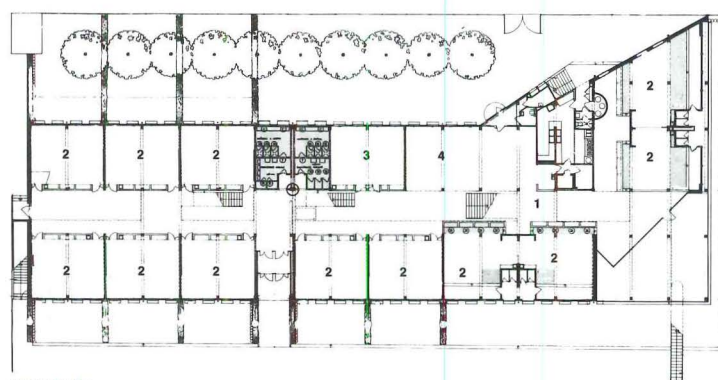
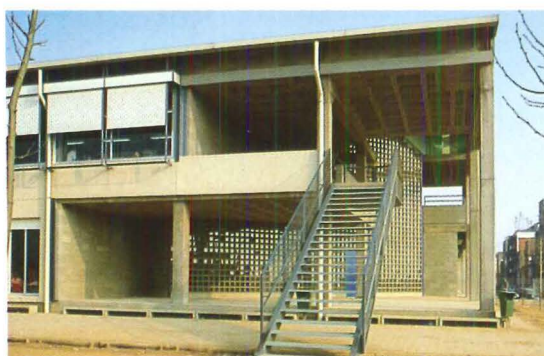
The Escuela Catalunya was designed as part of a complex, with housing and two other schools as yet unbuilt.

**In the Escuela Catalunya, the long central two-story "street" is cut off diagonally at the south end to form an "apse" to the street's "nave." Here the wall (the "rose window") is composed of small squares of glass filtering light that blends with the sunlight glowing through the double plastic roof of the street.**

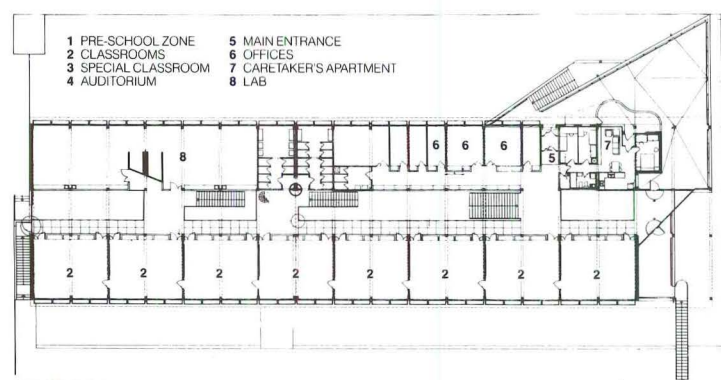








FIRST FLOOR



SECOND FLOOR

← N → 20/6m





the discipline of the building (west facade, facing page, top) derives from the prefabricated system originally to be used, though the school was eventually built of poured concrete. (Smokestacks are from another building nearby.) The openings on the ground floor allow the children to look directly from the classrooms to the playing fields. The roof is of zinc, treated against corrosion, and it floats above the upper slab to form an insulating cavity within. At the south end, where the inner street is cut off diagonally, the roof continues to form a shaded terrace for the nursery school, and the end gable reflects the interior organization (facing page, middle left and right).

The central "street" (above) lined with classrooms creates a village atmosphere frequently found in M-B-M's school designs. This street is used for more than just circulation. At the lower level, it can be used as a library, as an auditorium, and, at the south end, as play space for the nursery school. At the upper level, ledges along the balcony provide study worktops.

**Project:** Escuela Catalunya, Sant Adrià del Besós, Barcelona, Spain.  
**Architects:** Josep Martorell, Oriol Bohigas, David Mackay, Barcelona.  
**Client:** State government of Catalonia, Education Department.  
**Site:** flat characterless site in industrial suburb of Barcelona.  
**Program:** public primary school for 700 children, ages 4 to 14. Total area: 30,000 square feet.  
**Structural system:** reinforced concrete columns and slab. Zinc roof, treated to resist corrosion, floats above upper slab to form an insulating cavity.  
**Major materials:** concrete block interior, stucco exterior.

**Mechanical system:** gas-fired boiler, hot water radiators.  
**Consultants:** Lluís Pau with Martorell-Bohigas-Mackay, interiors.  
**Photos:** Lluís Casals, Barcelona.



## Masía Can Sumarra Library

As part of the cultural agenda of the post-Franco governments in Barcelona and the Catalanian state, a program was established to create community libraries. Martorell-Bohigas-Mackay was asked to develop a "house style" for the libraries to mark the arrival of democratic government, and to establish standards for furniture, lighting, graphic design, floor coverings, and layouts. It was important that the appointments be economical, with standard furnishings—shelves, tables, desks—that could be built by local contractors. These furnishings, simple and pleasant, are of pressed wood, the shelves finished merely with a clear lacquer, the tables with plastic laminate (winning a European Formica Award in 1985). The libraries all have open shelf access.

Most of the libraries are fitted into existing buildings, but some are new. Martorell-Bohigas-Mackay has designed about 20 in all, and other architects have done about ten others. M-B-M has also designed a library bus for the Pyrenees, with only a closet for reference books kept permanently in each village.

The library, shown here, for the populous Hospitalet del Llobregat neighborhood in Barcelona, is located in a farm complex consisting of two buildings that face a central patio. The principal building itself, two-storied, is made up of two parts, the original squarish 16th-Century farm building at the south corner of the site, and a long cowshed addition to its east. The secondary building, along the northwest of the site, served originally as a hayloft.

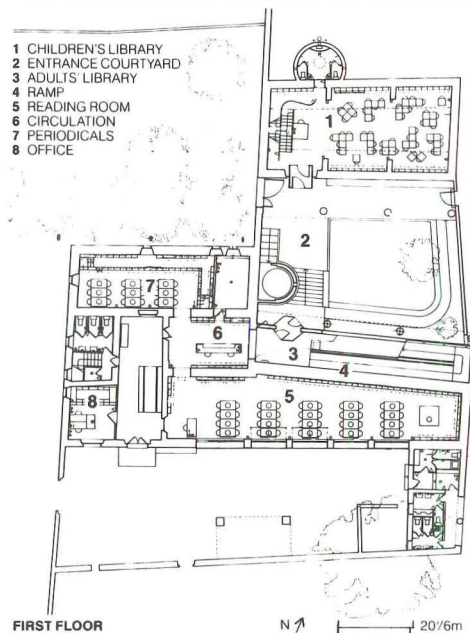
The intervention began by converting the central courtyard into the major entry for the library precinct (the traditional entry having been on the south side). Three-bayed arcades were added to each of the two buildings facing the courtyard, the arcade on the secondary building being left open as a porch, that on the principal building walled in glass and roofed in clay tiles on wood battens and beams, enclosing the access ramp to the second story (and its triple-curved landing).

The principal building became the adult library. The oldest rooms were preserved in commemoration of the farm's original inhabitants, and serve as offices. Here, precast concrete vaults between precast beams are painted to resemble the old wood beams with clay vaults. The long, east cowshed wing was opened up to become, on both its stories, reading rooms, with the south wall of the ground story opened to provide a wide expanse of windows facing the south courtyard. New floors were introduced throughout to support the weight of books.

The smaller building became the children's library. The original wood roof was restored as the ceiling of this structure, using the beams, battens, and tiles of the original, but a second roof was built over the first for protection against the elements, and a skylight was introduced. Balconies along two sides of the building increase its capacity.

The architects integrated two philosophies in the restoration of the building. For repairing or replacing old fabric, new material was made to resemble the original, as in the vaults, or in the repairing of walls in patchy-looking concrete to simulate the original clay and sand rendering, a lost technique. For additions, new elements are meant to be distinguished clearly, as in the glass enclosure for the ramp hall, or in the entrance vestibule introduced into the side of the children's library.

M-B-M has also prepared a master plan for the adjacent area, which includes a garden to be tended by neighborhood children, and a park.



The larger wing of an old farmhouse has become an adult library (left in top photo), the smaller a children's library (right in top photo), and the central courtyard now provides access. Arcades were added to both buildings, the in the adult library glazed to enclose an access ramp (above). For the children's library (facing page top), the original wood roof was rebuilt, a skylight was introduced and a new protective roof was added on top of the old one. Balconies increase the usable space in the children's library, and simple plastic laminate furniture was used both here and in the reading rooms of the adult library (facing page, bottom, background).





**Project:** Masía Can Sumarra library rehabilitation, Hospitalet del Llobregat, Barcelona, Spain.

**Architects:** Josep Martorell, Oriol Bohigas, David Mackay, Barcelona.

**Client:** State government of Catalonia, Culture Department.

**Site:** Sixteenth-Century farmhouse and barn with kitchen gardens and unused fields, in a neighborhood swamped with recent speculative high-density immigrant housing.

**Program:** adult library for 100 readers and 26,300 books; children's library for 100 readers and 15,000 books. Periodical and special collections rooms. Total area: 10,320 square feet.

**Structural system:** existing mud and stone walls reinforced with adjacent interior walls to bear the increased load. New floor structure: precast concrete beams and vaults.

**Major materials:** all surfaces, old and new, painted red-ochre. Rough cocomatting as carpeting.

**Mechanical system:** hot water radiators.

**Consultants:** Lluís Pau with Martorell-Bohigas-Mackay, interiors.

**Photos:** Lluís Casals, Barcelona.



## Casa Canovelles

High above the sea on a former hillside vineyard, east of Barcelona, stands a modern Parthenon of a house on its own Acropolis. Black steel columns define its upper story, and these rise delicately but with authority above a stepped concrete block base, which itself seems to emerge out of the sloping pebbled site.

If the steel and glass pavilion summons thoughts of Mies van der Rohe, other elements reveal more eclectic sources. While the curvy outer walls of the house's upper story evoke early Mies, the windows of the base are expressed in a distinctly anti-Mies, and anti-functional, manner; the base itself both merges with the ground below and engulfs the pavilion above; even the entrance hall salutes the Villa Savoie, containing, as it does, a sink as a functional sculpture.

The house is expressed in two vocabularies: glass and steel for the pavilion that is the communal center, on the upper story; and concrete block for the base. In both vocabularies, two attitudes are in evidence: the abstract, cubic, formal one that demarcates the man-made world, and the casual, even organic, one that creates an envelope that responds only to human needs.

On the upper floor, while a regular framework of columns defines the volume, especially as seen from the exterior, early sketches reveal an intention to carve irregular spaces from a solid cube. These irregular spaces have been transmitted to the final design in the form of curved walls of glass (the M-B-M guitar shape repeated several times) which form the actual limits of the main interior space. But the columns make their indelible impression by defining zones. The central, narrow bay is the movement zone, like the "street" in the Escuela Catalunya, and the wider side bays are the activity zones. The latter, not separated from the central bay, act as niches: There is the dining niche, the formal living room niche, and an informal sitting niche, so that members of the family can be together even as they do separate things. The floors extend out to the edges of the base to be used as terraces—exterior niches—off the inner niches.

Specialized family hobbies are separated from the main space on this floor, but are linked somewhat more than might be expected. The father is interested in cars, and while the garage has its own entrance beside the house's front door, the entrance hall itself is separated from the garage only by the freestanding sink. As to the kitchen, both parents are very interested in cooking, so this room, a cube next to the main space, is surrounded by windows above counter height.

The lower story is occupied by children's bedrooms. In each of these, windows run from wall to wall: As upstairs, glass is the fluid, informal medium. Here, however, rhythmic formality is expressed in concrete block: The base is seen as a solid wall punctuated by square openings. But this is an exterior skin, and the openings do not coincide with the actual windows, whose limits are dictated only by function.

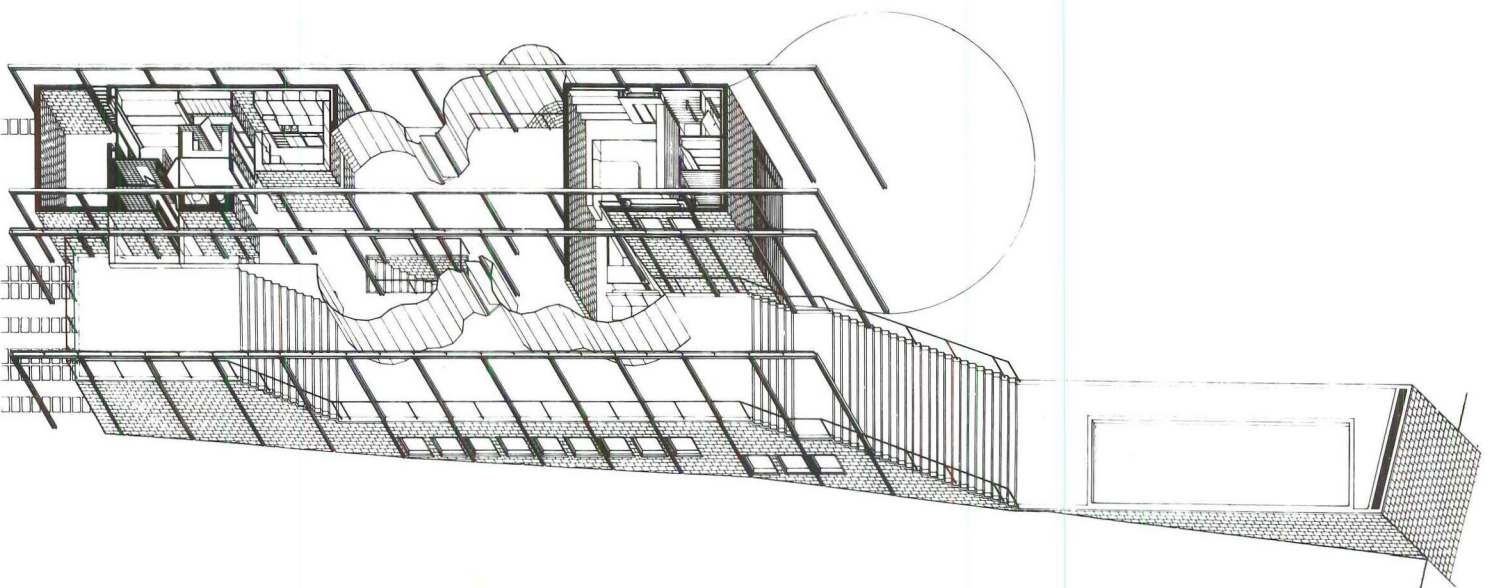
David Mackay himself refers to the house as Villa Savoie in Mies clothing. Mackay admits that this eclectic Modernist design, completed in 1982, could not have been executed in an earlier, more canonical period. *Susan Doubilet* ■



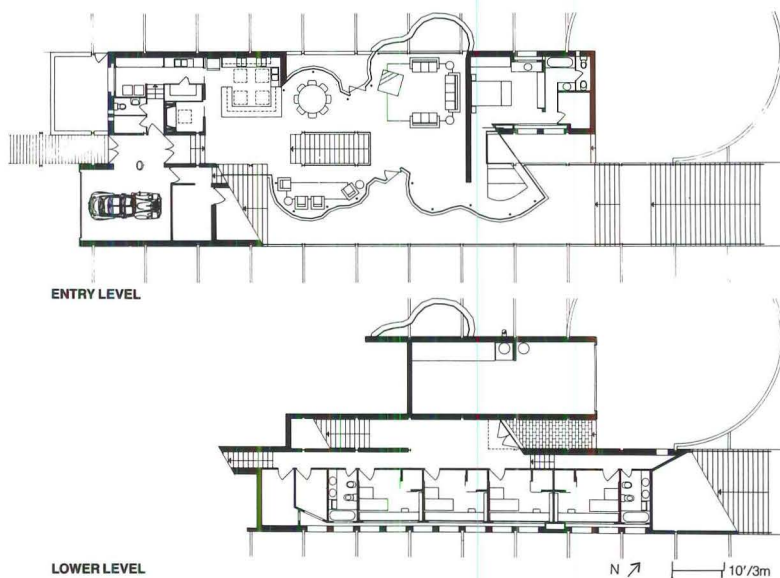
**The Canovelles house overlooks the market town of Granollers, outside of Barcelona. The house, one story on the front (above) and two stories at the back (facing page), stands on a site that is landscaped to require little maintenance, according to the clients' wishes. From the rear, the concrete block base, which contains bedrooms, steps up to form a terrace on the house's main level, and then rises further to form a terrace overlooking the front entrance (above). Out of the base emerges a black steel framework establishing the limits of the man-made environment. Awnings span between sections of the framework to shade the side terraces on the main level (top) and elsewhere,**

**as required. Within the steel framework (and in places protruding beyond it) runs a curvilinear wall made up of flat planes of glass defining the house's main living space (see axonometric, facing page). While the ceiling is dropped within this main area for mechanical needs, this is not expressed on the exterior: Reflective glass is used along the edge of the hung section so that the glass frame extends to the roof coping.**









**Project:** Casa Canovelles, Granollers (Barcelona), Spain.

**Architects:** Josep Martorell, Oriol Bohigas, David Mackay, Barcelona.

**Site:** old vineyard hillside above market town of Granollers, north of Barcelona.

**Program:** residence for family of five. Relative independence for children's study/bedrooms. "Ideal" kitchen with special relationship with living area. Total area is 6200 square feet.

**Structural system:** steel columns, reinforced concrete slab.

**Major materials:** gray-white concrete block cavity walls. Cork floors.

**Mechanical system:** oil-fired hot air heating and air conditioning. House also relies on natural breeze for ventilation, and awnings provide shade.

**Consultants:** Lluís Pau with Martorell-Bohigas-Mackay, interiors.

**Photos:** Lluís Casals, Barcelona.





The central bay of the steel framework defines the house's movement zone, from the entrance (facing page) through the main stairs (far left) to the back of the space. On either side of this zone are activity niches enclosed by glass: the dining zone (above), informal seating zone (left), formal living room, and office at the rear.

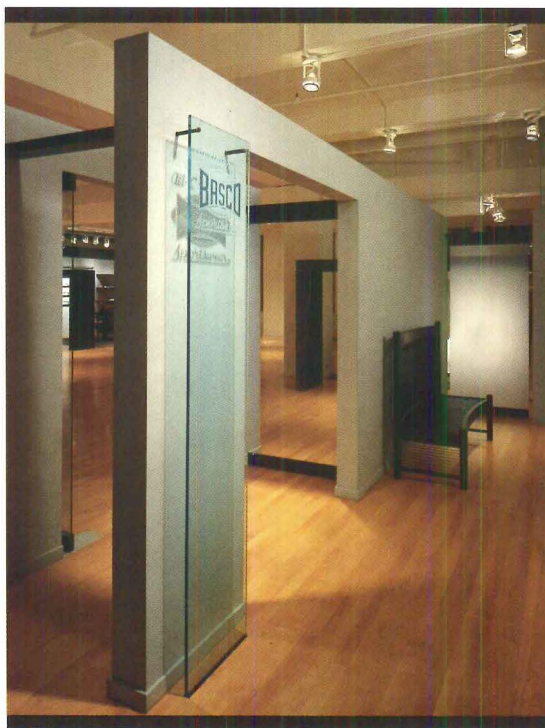


# Plane Spoken

**With graphic style and formal substance, Rosenblum/Harb's subtle modulations of a large, open space create a suitably modern showroom for a maker of hip, clean-cut sportswear.**

IN architecture as well as in fashion, the most satisfying designs are often those that are simple enough to wear well and long. And since a clothing manufacturer prefers its wholesale showroom to echo its aesthetic outlook, it isn't surprising that BASCO (stands for Barney's All-American Clothing Company) wanted an interior that suited its product—classic, but unmistakably with-it, sportswear for men and women. The company asked Rosenblum/Harb Architects, a six-year-old New York firm, to fit sales, display, office, conference, reception, and storage areas into a 5000-square-foot floor of a 1930s Manhattan office building, without compromising the openness of the loftlike space, with its double rows of columns and walls of north- and south-facing windows. "The clients wanted a sense of action," explained architect James Harb, "and they gave us the freedom to make a series of little stage sets, which create individual sales areas without closing them off from the rest of the space, and which also created a central runway space for fashion shows."

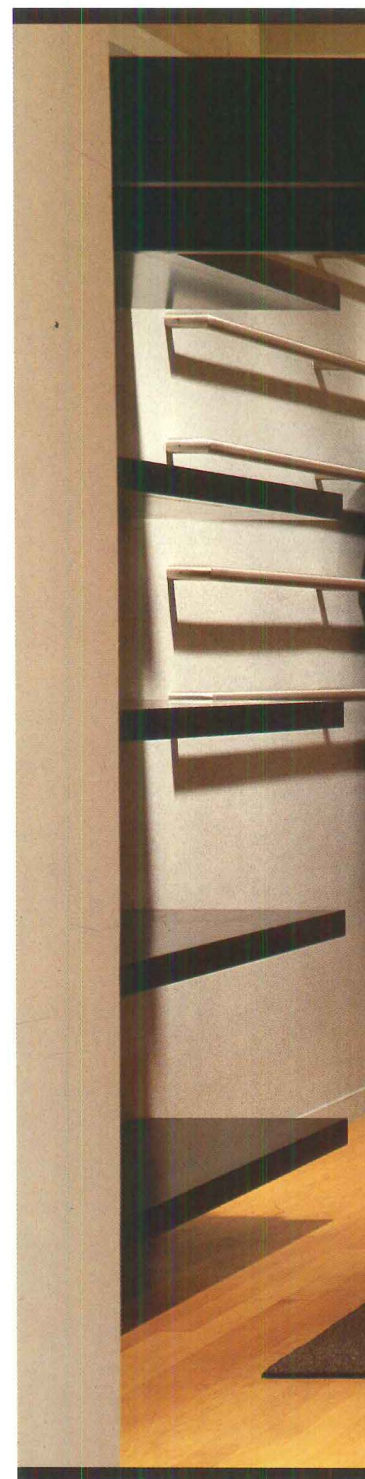
The means by which the architects allowed the client to have its cake and eat it, too, is a series of "staggered planes" that converge at the center of the space, while stepping back at both ends to admit plenty of light. They define three sales/display areas on either side of the space, and also create a suitably dramatic reception area, appearing variously as gray, texture-painted walls, black-stained mahogany hanging racks (which help define the sales areas), and panels of sandblasted glass and mirrors. Each of these elements is distinct, and



although some of the gray walls are braced to the columns, they are always read as separate from them, as they are from the window walls. (The hanging rack/dividers also act as structural bracing.) Strategically placed mirror panels dissolve some planes while echoing others, to imply continuous space. Further, the floating counterpoint of cantilevered black display shelves and brushed stainless steel hanging rods on the sales-area walls introduces yet another layer of lines and planes into the picture.

The architects chose a palette that reinforces the showroom's light, sophisticated feeling. The light maple flooring refers to gymnasium floors, in a humorous nod to the casual nature of BASCO's designs. And the black of the hanging racks and display shelves, combined with the gray of the walls, the frosted whiteness of the sandblasted glass, and the silvery glint of the stainless steel, speaks clearly of both peppy modernity of the goods on display and their neutral, quiet-good-taste looks. The architecture does indeed appear as active as the image that its owners strive to project.

The shell of the space is left deliberately under-done; ductwork and sprinkler pipes were simply painted out, the better to concentrate design moves where they counted most without exceeding the project's lean budget. In much the same way that someone with more style than money knows how to dress up a very basic wardrobe with a few knockout items, Rosenblum/Harb knew where to spend a minimum of architectural means to achieve the maximum impact. *Pilar Viladas*

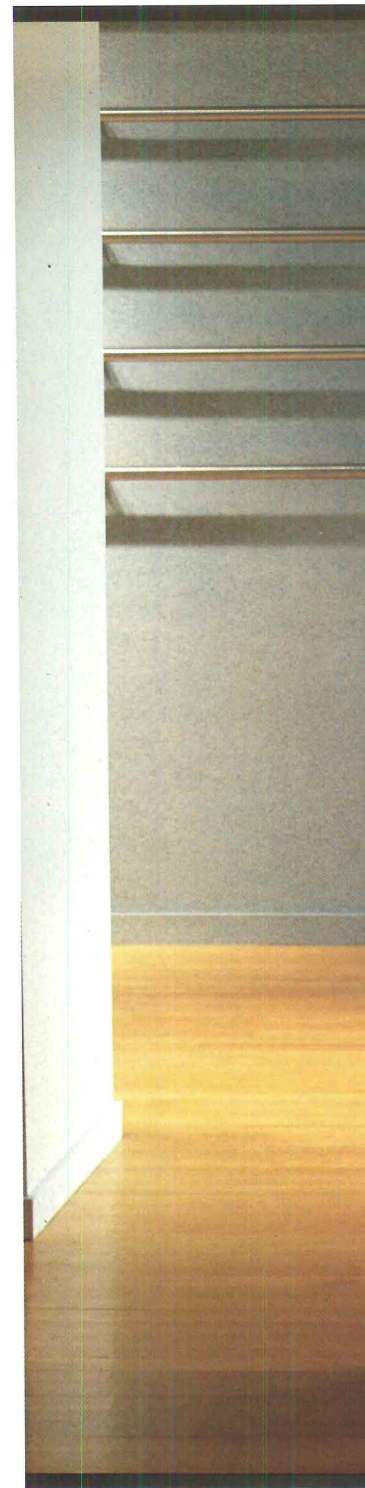
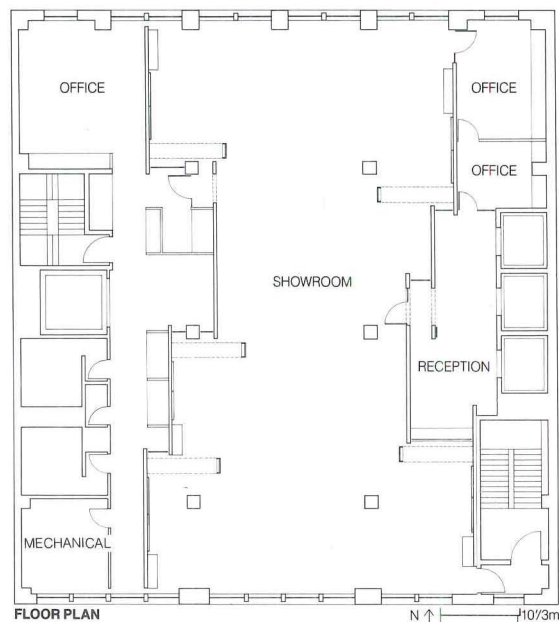
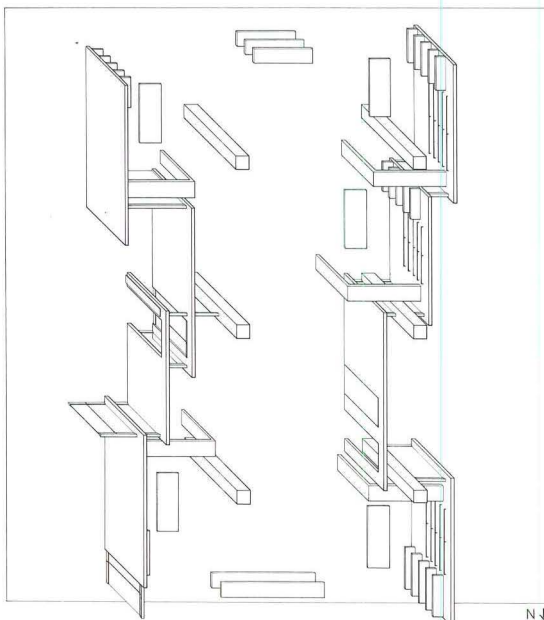


The planar composition of the BASCO showroom reveals itself as soon as the visitor steps off the elevator into the reception area (above, left). The various planes—most importantly in the form of fine, black-stained mahogany hanging racks (two of them, above)—define six sales areas within the loftlike showroom space. Clothing is displayed to buyers on cantilevered black shelves and stainless steel hanging rods on the wall behind the sales table.









The architects' arrangement of "staggered planes" is illustrated by a view north (above, left) from near the entrance doors (reception area through doors at right), looking past a large mirrored panel, to a sales area. Seen straight on, the elements of a sales area (above) form an abstract play of lines and planes.





**Project:** BASCO showroom, New York.

**Architect:** Rosenblum/Harb Architects, New York (James Harb, principal; Maria Pena, job captain; Christopher Powell, illustration).

**Client:** BASCO (Barney's All American Sportswear Company), New York.

**Program:** renovation of a 5000-sq-ft space, in a 1920s office building, for a men's and women's clothing showroom.

**Major materials:** maple flooring; stainless steel; mahogany; gypsum board; glass (see *Building Materials*, p. 137).

**Consultants:** Richard Hill, P.C., consulting engineer; CHA Design, lighting.

**General contractor:** J&J Johnson Co., Inc.

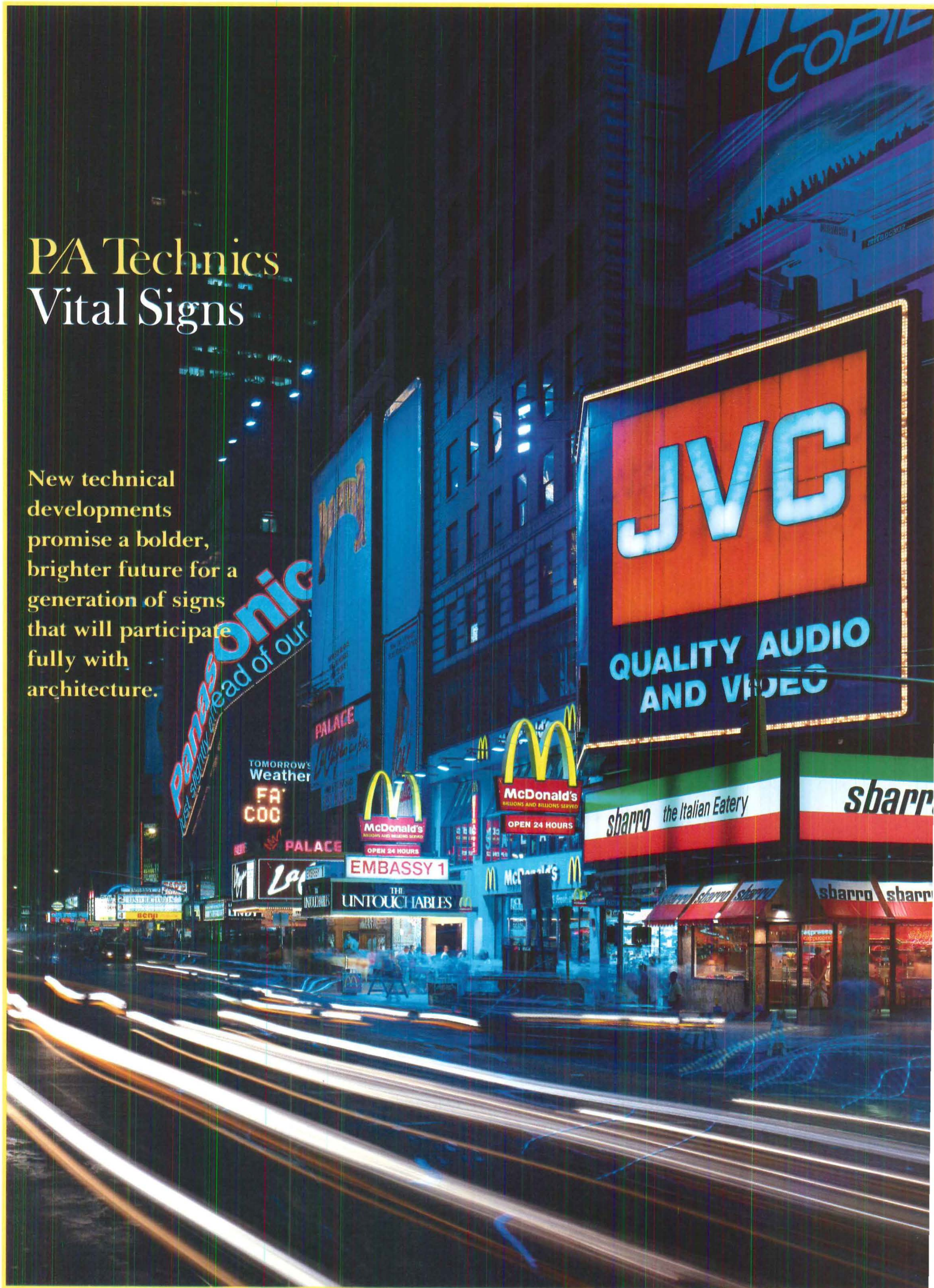
**Costs:** \$195,000, including furnishings and excluding fees (\$49 per sq ft).

**Photos:** Paul Warchol.



## P/A Technics Vital Signs

New technical developments promise a bolder, brighter future for a generation of signs that will participate fully with architecture.





DO you remember Archigram's "instant city" proposal, their ideas for a leisure park in Monte Carlo, or the original competition drawings by Piano + Rogers for what eventually became the Pompidou Center? Those schemes and many like them—produced in an era that now seems far behind us—boasted huge, ever-changing, ever-alive signs that were integral to the architecture, as if the places were meant to become, overnight, Times Square (or at least Piccadilly Circus) updated, orchestrated, and writ large.

Amidst the almost unrelieved graphic tedium of international symbols for restrooms, information booths, and baggage claim areas, and the inescapable tyranny of Helvetica medium typeface, one may wonder: Whatever became of the enthusiasm for big, colorful, dynamic signs, and their electrifying visual and architectural presence?

There are signs, however, of that enthusiasm reemerging. Sign design is fast returning to its rightful place as an interesting and lively field that will reaffirm its ties with architecture.

## Basics

The use of pictures and images for signs on and in buildings must be a practice as old as commerce itself. The mainly European tradition of colorful, highly pictorial signs on business establishments (a practice that lasted well into the 18th Century, and has lingering vestiges today) was, say some historians, a fundamental response to the fact that most people could not read. Word signs—like widespread literacy—are a more recent development.

Most modern signs are composed mainly of words. "The classic contemporary sign problem," says one sign designer, "is that information changes, sometimes drastically and usually often." Unless designed to be accommodating from the outset, sign systems run into the most difficulty in situations that require change.

The best responses involve a well-structured, somewhat hierarchical approach, using a combination of fixed and flexible elements to address the four basic functions served by signs: information, direction, identification, and regulation.

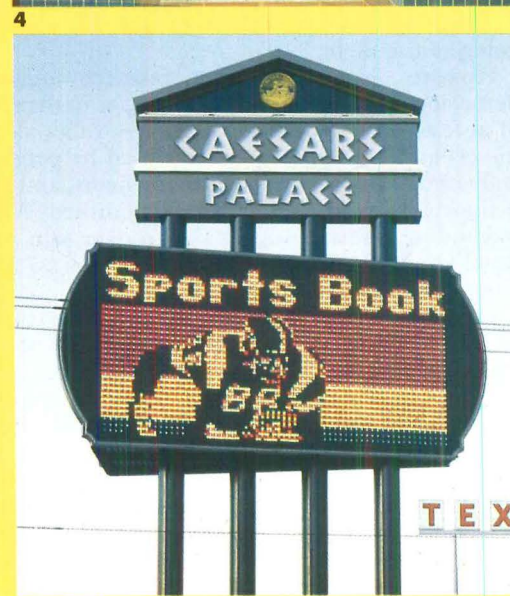
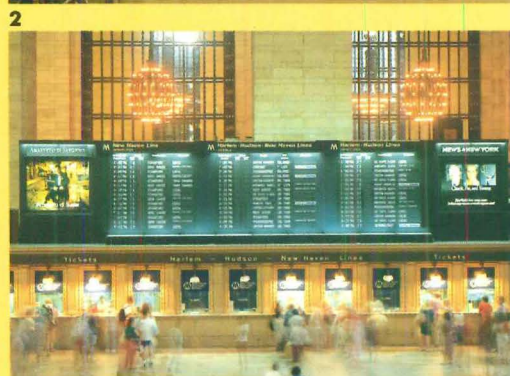
**Information** (flexible): In hospitals, government buildings, offices, and other large or complex organizations, the initial directory information function is increasingly filled by computer-based systems. This permits easy updating and quick access.

In airports, flight arrivals and departures are in a constant state of change; typically, television monitors serve to announce flights and identify the appropriate gates. The characters displayed on video monitors are too small to be seen from a distance, so screens are arranged in a manner that permits users to pause, look, and then move along. Larger changeable signboards can be used in lieu of video screens, but may not offer the same degree of flexibility and expandability.

For most other buildings, such systems are probably most effective when operated by trained guards or receptionists. Many people remain daunted by computerlike video screens and keyboards. For reasons of infirmity, some people are unable to use them. Also, video monitor directories operated by incoming visitors may not accommodate large volumes of pedestrian traffic efficiently.

Of course, many kinds of fixed directories can also be used. The general guidelines are: use plenty of cross-referencing, make the type large enough to be read easily, use simple location designations that relate directly to nearby directional signs, and make sure that the directory can be changed or updated without great expense.

**Direction** (fixed): Signs pointing the way to specific areas (such as the gates in an airport, which



Vomar

Vomar

Christopher J. Lovi

Vomar

Daktronics

Signs fulfill varied functions by a wide variety of means, as shown in the signage in New York City's Times Square (facing page). Identification signs (1) are the most common and are generally treated as important but static graphic elements in architectural design. Information signs range from relatively fixed building directories (2), where legibility and flexibility are the key factors, to such ever-changing displays as the split-flap sign (3) announcing trains in Grand Central Station. Direction, information, and identification functions may be combined in signs (4), in this case by using small lamp-bank displays to form blocks of letter characters and numerals. Great strides have been made in the use of electronic microcircuits and computer software to enhance animated effects in lamp-bank signs (5), thus enriching the graphic vocabulary available to designers.





**There is a variety of signage now available (above). For nighttime illumination, that includes neon, lamp-bank, floodlighted, and internally illuminated signs.**

**Among its many other endeavors, the Society of Environmental Graphic Designers is working to develop standard terminology for sign types, elements, materials, and methods of manufacture. Members of the SEGCD are mostly graphic designers and manufacturers of signs, but the Society also includes architects and wayfinding researchers.**

**Beginning on the facing page are excerpts from the SEGCD's proposed standard terminology for sign types. Comments on these terms and on the sign taxonomy are welcomed by the SEGCD at the address shown at the end of this article.**

don't change often) can be relatively fixed elements. Redundancy may be helpful, if only to reassure users that they are still on the right track. Wayfinding research points to the importance of such "reassurance" signs where the journey is long and other clues are minimal or ambiguous.

Few proponents can be found today for directional signage and wayfinding that involve the use of detailed maps, color-coded walls, or anything more complex than a few easily changed arrows, words, and numbers. "Forget all of that other stuff," runs the prescription advanced by one designer. "Keep it as simple and basic as possible. Think of signs as if your elderly grandparents were going to use them."

However, some wayfinding research suggests that color route stripes on floors (or, as in the case of at least one hospital, colored neon tubes along the ceiling) are appreciated and used by patients and visitors. But not if there are too many, and not if the colors cannot easily be distinguished. Also, wayfinding research suggests a stronger sign role could be played by architectural "landmarks" and other physical cues within buildings.

Directional signs should be placed at key turns or intersections, and anyplace where one might logically pause to question the right course. Terminology and graphics should be simple, consistent, and in scale with the importance of the information being conveyed.

If maps must be used (a good idea on campuses, for example), wayfinding research suggests that perspective drawings (distorted to show paths or hallways, as well as key buildings or spaces) are far more effective than plans.

**Identification (flexible):** Change is most frequent and difficult to accommodate in interior identification functions, such as the signs on or next to the doors identifying who is there or what goes on inside. To provide flexibility while discouraging graphic chaos, building maintenance personnel or graphics departments can be equipped with the means to produce new identification signs for changing staff and space functions.

Several computer-based sign design and fabrication systems now make it possible for relatively unskilled operators to produce new signs professionally, inexpensively, and quickly, within a consistent graphic vocabulary. Many speculative office developers, increasingly concerned with carefully integrated building graphic systems for identification and wayfinding, treat graphics and signs as part of an overall package offered to tenants.

**Regulation (fixed):** Internationally recognized graphic symbol conventions (known as pictographs or icons) can be used not only for some identification and directional signs, but for many of the "base" building sign requirements in restricted areas, authorized circulation paths, designated smoking areas, emergency exits, and other such regulated places. Some of these sign requirements are covered in municipal and state codes, or in federal standards.

One challenge for a sign program is to assure that these "base" sign requirements are integrated with other signage needs that may be necessary or desirable. Fortunately, there are many choices available not only in the graphic style and quality of the symbols and typefaces used in such signage but also in materials and methods of mounting.



Also, many public domain guidelines and sample photographs are now available, making well-designed regulatory and identification signs available almost anyone who will take the trouble to look.

### The Electronics Revolution

Electronics-based developments raise the most exciting prospects in sign technology. For one thing, recent advances make it possible to combine all of the basic sign functions within a single, integrated, flexible, and visually dynamic system. Manufacturers are more willing and able than ever before to accommodate "special" or "custom" designs, both for internal sign works and for virtually any form of sign housing.

The software used to manage electronic information display systems has attained unprecedented levels of sophistication and interactive capability. Even the processes of fixed sign fabrication, from cutting letter forms to molding complex phototypes, are faster, less expensive, and more precise with the advent of computer-based techniques. Most alluring, though, is the prospect of producing large, animated displays using the inherent advantages of high-speed microprocessors to program and control the disposition of multiple, complex sign elements. The techniques available for this purpose are not entirely new, but they have made remarkable progress recently.

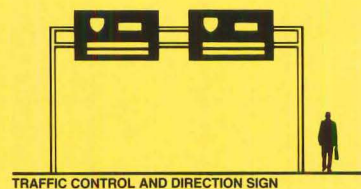
**Lamp-bank displays** involve many light bulbs placed in a large grid. Each bulb in the bank is switched on or off to create letter forms, images, or patterns of animated movement. White light lamp banks have long been used, for example, in the classic Times Square displays; more recent versions employ banks of bulbs in a red-green-blue array, which is needed to create an apparently full spectrum of color.

Computers have greatly enhanced the ability of lamp-banks to show animated movement in color (instant replays on screens at stadium sporting events are one common example), but the approach still has inherent limitations. The relatively large size of each light bulb, and the requirement for space between bulbs, impose a fairly gross resolution of any image. Thus, lamp banks are generally unsuitable for close viewing. Also, incandescent lamp-banks generate a lot of heat and are costly to maintain.

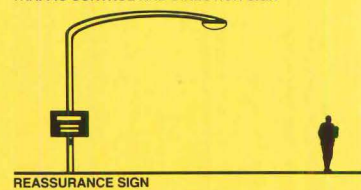
**Light-emitting diodes (LEDs)** pass small amounts of electrical current through two-terminal electron devices, making characters or images appear or disappear within a uniform background. LEDs are widely used for watches, calculators, and small computers. On the plus side, individual LED units can be very small; they generate little heat; they can be packed together very densely on a large screen to create crisp, high-resolution images; and they're reasonably durable.

But LEDs do not produce bright light, and illumination of LED signs is difficult (people who wear LED watches know this problem). LEDs cannot produce white, and some designers complain of the limited palette; although research is underway on diodes that will produce acceptable blues, the prospect of red-green-blue LED arrays is, by most accounts, some time off.

**Split-flap displays** are commonly used for the numerals on the digital clockfaces that many of us see next to our beds. They are widely used for travelers' information boards in train stations and airports. The technology is simple, something like a motorized Rolodex card system. Each card has characters, colors, or images on both front and back, which combine with their neighbors above, below, and to the sides to make meaningful shapes. Other variations include rolling bars or blocks,



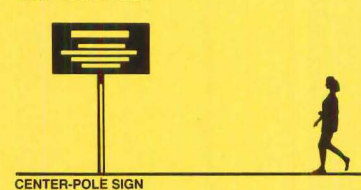
TRAFFIC CONTROL AND DIRECTION SIGN



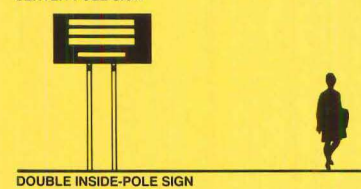
REASSURANCE SIGN



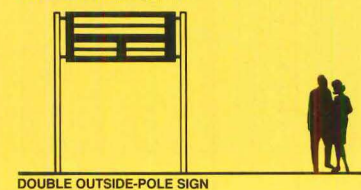
CANTILEVERED SIGN



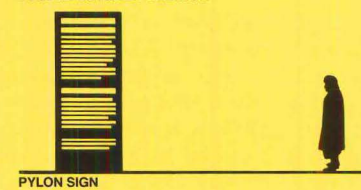
CENTER-POLE SIGN



DOUBLE INSIDE-POLE SIGN



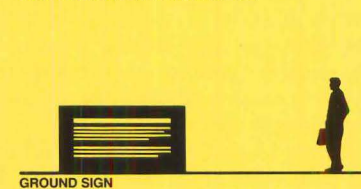
DOUBLE OUTSIDE-POLE SIGN



PYLON SIGN



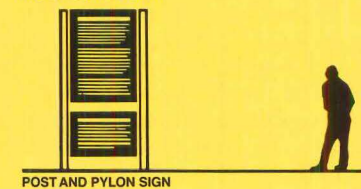
DOUBLE INSIDE-POST GROUND SIGN



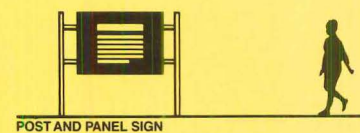
GROUND SIGN



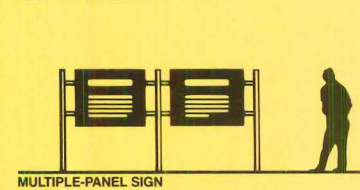
BASE-MOUNTED SIGN



POST AND PYLON SIGN



POST AND PANEL SIGN



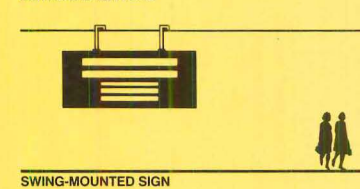
MULTIPLE-PANEL SIGN



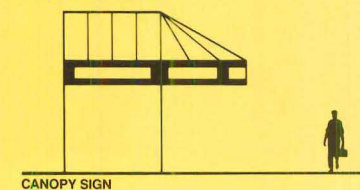
RIGID-MOUNTED SIGN



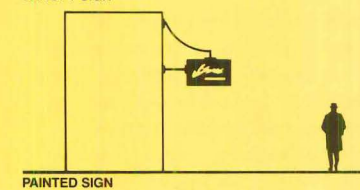
INDIVIDUAL LETTERS



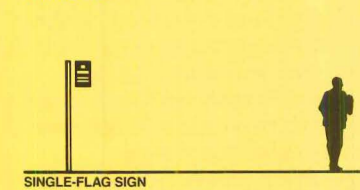
SWING-MOUNTED SIGN



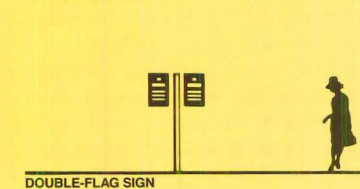
CANOPY SIGN



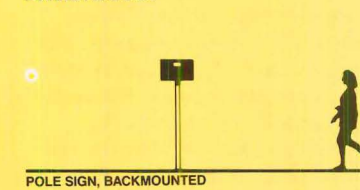
PAINTED SIGN



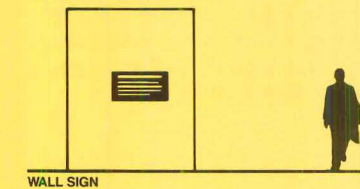
SINGLE-FLAG SIGN



DOUBLE-FLAG SIGN

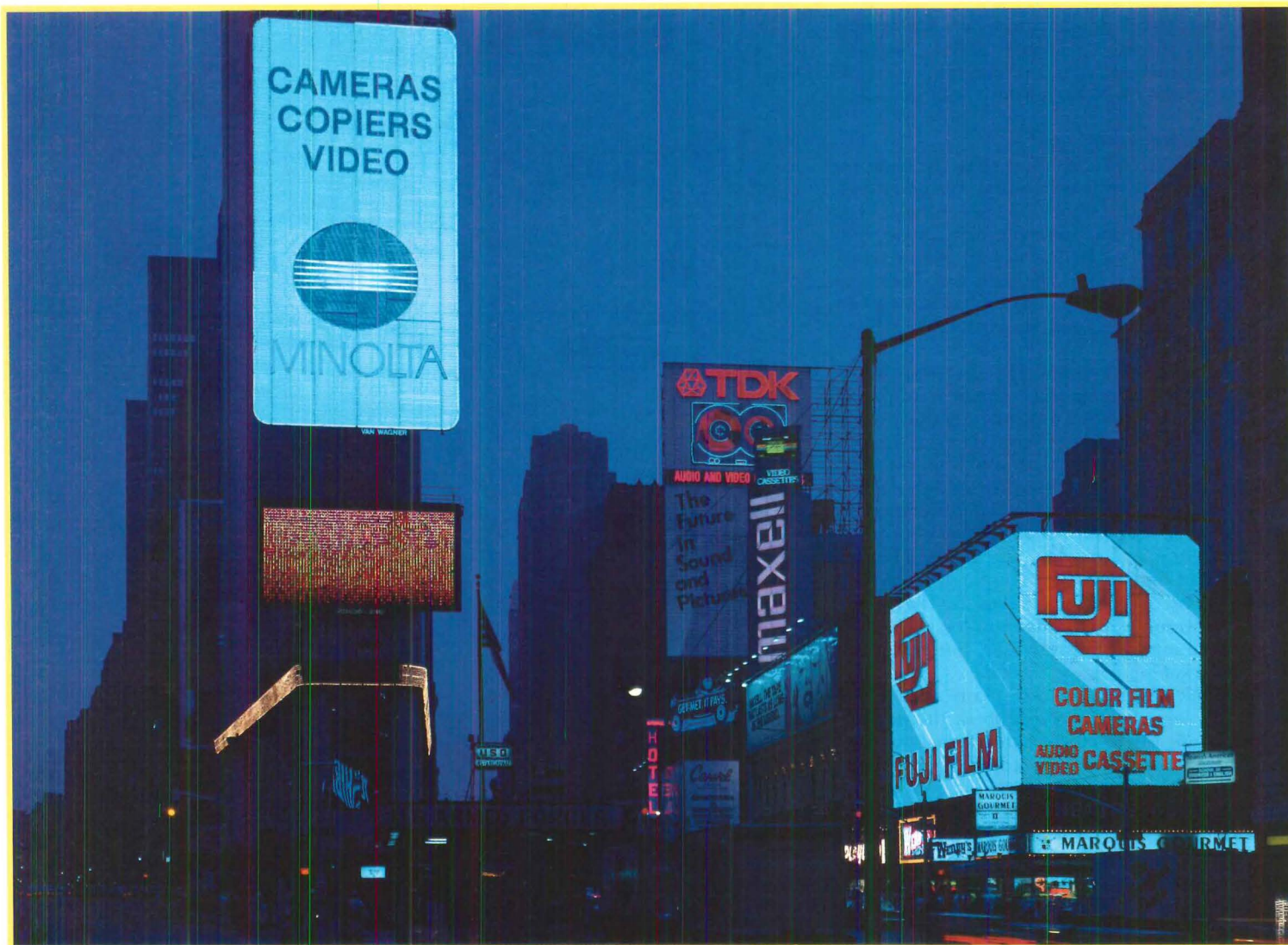


POLE SIGN, BACKMOUNTED



WALL SIGN





The Society of Environmental Graphic Designers is promoting not only a taxonomy of signs (facing page), but uniformity in sign bidding and specification practices. Ultimately, says one active member, the Society hopes to achieve reform of the Construction Specifications Institute's specifications format dealing with signs and graphic systems: Sign related materials now appear in as many as 21 major CSI divisions.

The familiar and captivating image of a lively Times Square at night (above) is born of signs. While the commercial animation of urban skylines isn't new, and isn't unique to Manhattan, it is changing, and New York City shows the changes. New sign technology has expanded the use of color, has permitted larger displays with images of greatly enhanced resolution, and is leading to the use of more sophisticated animation techniques. The virtual city of fixed and floating outdoor television screens, posited for a Downtown Los Angeles of the future by director Ridley Scott in his film *Blade-runner*, may not be far off.

and mechanical pixel systems. Think of a crowd sitting in a sports stadium: Each person holds a card that he or she will flip to help make a gigantic image or message. In a mechanical pixel system, each space in the grid has as many as 60 cards and each one is about 2 inches by 4 inches. Any letter character, shape, or color can be applied to a flap, and the resultant images are as clear and crisp as can be. At the Osaka world's fair, fantastically colorful, detailed visual images were created with split-flap and mechanical pixel displays.

**Flip disc displays**, like electric lamp-banks, are binary graphic systems—the individual discs are either “on” or they’re “off.” While simple and durable, the discs impose a rather strict geometric order on a sign, because letters, numerals, and other forms must be composed of small circles or dots. Most common (mainly because of their high visibility) are bright yellow-green discs superimposed on a matte black field, but any combination of colors can be used. The discs are switched by electromagnetic devices, with the patterns of switching controlled by microprocessors.

If a split disc array is large enough, and the dots are small enough, images and letter characters of fairly high resolution can be composed. Flip disc displays are increasingly common. In Paris, they are used on large glass-encased signboards placed all over the city in key public places. They carry changing community announcements, which are dispatched over telephone wires from a central location. In the U.S., some newer city buses now use them to display route information and identifiers; in Washington, D.C., they flash “Have a Nice Day” to frazzled commuters.

### Upcoming Signs

The future may hold even more interesting developments for electronic graphic systems. Television monitors generally available today, while they have many more colors and greater resolution, are generally not satisfactory for large-scale applications when projected and enlarged, the colors look muddy and images lack crispness. High-resolution video monitors, now on the commercial horizon, will change this. Some systems are already available with tiny CRTs arranged in huge red-green-blue arrays.

Liquid crystal displays are well established in certain small applications. Soon it may be possible to produce virtually any color using these opaque chemical elements that turn “clear” when subjected to electrical current. Internal illumination should be possible, and resolution should be very crisp. Advances in gas plasma engineering and LEDs will also open new doors for sign technology.

Not all of the interesting developments are in the area of electronic signs. Great strides have been made recently in computer-assisted fabrication techniques for cutting, routing, molding, etching, painting, and otherwise treating or shaping materials. Typography and other images can now be digitized and stored in outline or solid form with a computer and then used to create sign elements.

Sign materials, too, are advancing. In what one industry figure characterizes as “potentially a \$500 million annual market,” back-lighted canopy awning signs, many available with carefully engineered structural systems, are adding new dimensions to outdoor retail commercial signage. The fabrics and image-application techniques have



each new levels of durability and precision, at costs below many other alternatives. The "internally illuminated" or "electric" awnings are lightweight, available in many colors, and distinctly architectural.

Also, advances in plastics, metal finishing, wood-putting, laminating techniques, and methods for photographic reproduction have led to a generation of widely available custom and stock signs that are virtually impervious to the ravages of weather, vandalism, and ordinary use. Small- and large-sign fabricators are increasingly receptive to working out new ideas and approaches with architects and graphics designers. In part this is a result of, or perhaps reinforcement for, a more unified and progressive sign industry.

## Signoff

On the subdued, manicured urban streetscapes that have emerged after more than a decade of intense urban redevelopment and preservation, it is becoming harder to find those distinctly American, sometimes visually noisy arrays of signs that shout, somehow pleasingly: Here is commerce! Here is night life! Here is this and here is that!

Not that we've entirely put aside graphic disarray and visual cacophony; they're still out there, in mostly objectionable abundance, on suburban and urban commercial strips. But in these environments, signs are rarely interesting or compelling, whether singly or in combination. They are manufactured, not designed, and the results foster a deadening, demeaning graphic sameness-amidst-chaos that is characteristic of too many outlying areas.

Fortunately, the sign design industry (or, as some will now have it, the environmental graphics design industry) seems poised to enter an exciting era in which few of these complaints need apply; and that's a welcome sign. **Thomas Vonier, AIA**

*The author heads an architectural practice in Washington, D.C., and serves as that city's correspondent for P/A.*

## Acknowledgments

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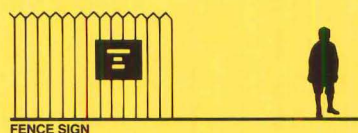
## Additional Reading

*Archigraphia* is a good sign ideabook with illustrations of many fine examples (edited by Walter Herweg, Graphis Press, Zurich, 1978). Although now over 15 years old, *Street Graphics* by William R. Wald, Jr. (American Society of Landscape Architects, June 1971) remains an excellent general work on the design, management, and regulation of signs in the cityscape; it also has an excellent section on the special problems of signs that are designed to be seen from the inside of moving automobiles.

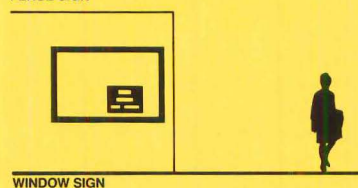
## Further Resources

The Society of Environmental Graphic Designers (SEGD, 47 Third St., Cambridge, MA 02141), established in 1973, seems recently to have taken on new level of dynamism and purposeful activity. The National Electric Sign Association (NESA, 301 North Fairfax St., Suite 205, Alexandria, VA 22314) publishes guidelines for sign control regulations and sponsors an annual sign design competition.

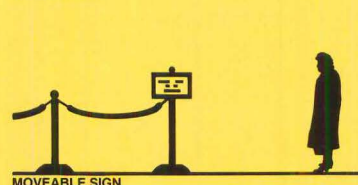
See Technics-Related Products, page 108.



FENCE SIGN



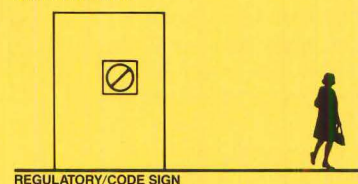
WINDOW SIGN



MOVEABLE SIGN



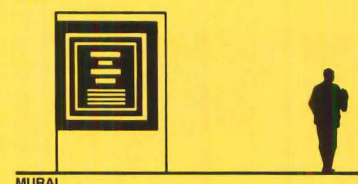
DEDICATORY SIGN



REGULATORY/CODE SIGN



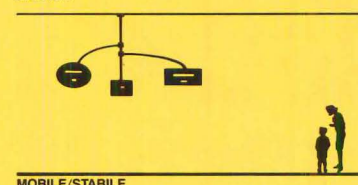
KIOSK



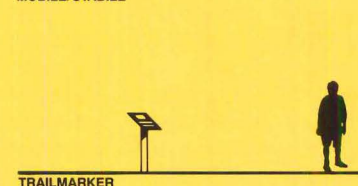
MURAL



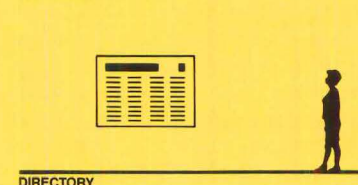
BANNER



MOBILE/STABLE



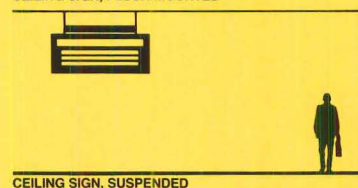
TRAILMARKER



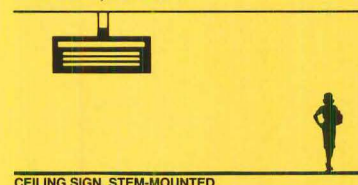
DIRECTORY



CEILING SIGN, FLUSH-MOUNTED



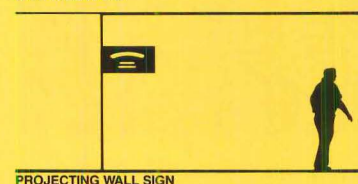
CEILING SIGN, SUSPENDED



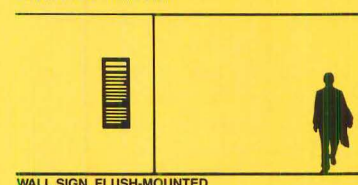
CEILING SIGN, STEM-MOUNTED



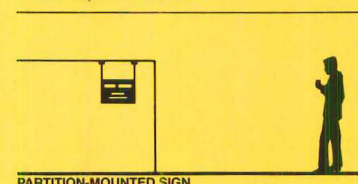
GRAPHICS BAND



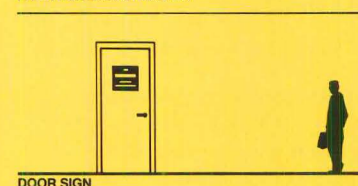
PROJECTING WALL SIGN



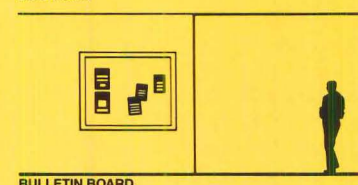
WALL SIGN, FLUSH-MOUNTED



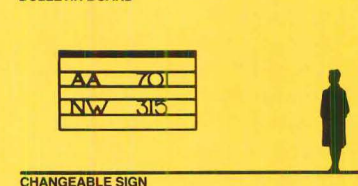
PARTITION-MOUNTED SIGN



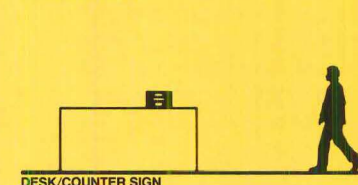
DOOR SIGN



BULLETIN BOARD

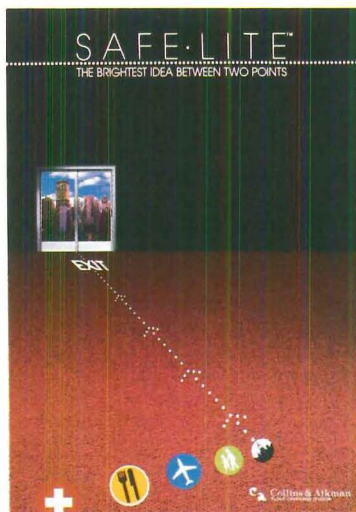


CHANGEABLE SIGN



DESK/COUNTER SIGN





**Safe-Lite™**, a lighted modular carpet system for graphic, safety, or directional messages, offers high visibility and a long life at a low voltage. The product incorporates a super flat cable system and shatter-proof polycarbonate lens covers with custom die-cut modular carpet tile. Color coding and a choice of three illumination patterns allow for multiple traffic direction and information guidance. A six-page color brochure fully describes the uses and applications of the system. Collins & Aikman.

Circle 208 on reader service card

**Wood signage** is presented in a variety of styles and arrangements in a four-page color brochure. The manufacturer offers a full range of sign services from planning and design through installation. Custom signage and standard identity signs are both illustrated with color photographs. The standard identity sign can be coordinated with a line of standard accessory signs to create a custom sign program. All sign panels are made of clear heart redwood, glued with water-proof resorcinol glue, and secured with plated or galvanized fasteners. All lettering and graphics are routed or sandblasted in exact compliance with client-approved artwork. SouthWood.

Circle 209 on reader service card

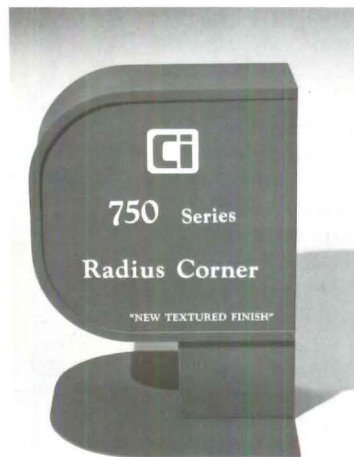
**CompuDirect Directory Systems** are described in a four-page color pamphlet. The brochure details the uses of CompuDirect 2, a directory system for shopping centers and building complexes, and the CompuDirect 5 for offices and apartment buildings. The CompuDirect 2 contains a computerized map, video display, and push button directory console. Coupling the directory with the video display allows the CompuDirect 2 to flash appropriate sales or informational messages while light-emitting diodes direct the user along the illuminated map. The CompuDirect 5 displays names and suite numbers on a video display when the first letter of the name of an individual or company is pressed. Cabinets are available in standard configurations or as specified by architect's drawings. Computer Sign Systems.

Circle 210 on reader service card



**Custom designed decorative signage** has been introduced to work with a collection of decorative interior tile. The plaques can convey a variety of messages such as house numbers, titles and directions. Available in an 8¾ x 7 inch oval, and a 4 x 8 inch rectangle, the plaques come in unlimited background colors. Optional solid walnut frames are available with the rectangular sign. Summitville.

Circle 137 on reader service card



**Series 750** radius corner signs are custom fabricated for illuminated and non-illuminated applications. The design features a two piece 7½-inch-wide extruded aluminum frame with stretch formed radius corners and a fabricated aluminum base. The two piece construction eliminates seams and provides a slim sign cabinet. Standard sizes are available from 18 x 36 inches to 72 x 144 inches. Custom sizes can be fabricated to meet customer specifications. The sign face is available in a number of graphic options. Charleston Industries, Inc.

Circle 138 on reader service card

**Interior sign systems** are presented in a full color catalogue. The eight-page brochure details a wide range of sign types in various materials designed to complement all building types. Four standard sign constructions are featured with section drawings identifying and describing their standard components. A listing of design options accompanies each sign type. Sign graphics and standard accessories are presented with the same degree of organization and detailing of options. The manufacturer offers extensive fabricating capabilities and is experienced in coordinating and installing large multi-product projects. Cornelius.

Circle 211 on reader service card

**Interior and exterior signage systems** are summarized in an eight-page brochure. The Architectural Sign Source presents a wide range of signage products from a complete line of fabricated and cast aluminum letters for exterior identity signs to glazed building directories and cast plaques. The literature presents the manufacturer's system categorically. A description of each product line is followed by a listing of its individual standard options. The manufacturer is a member of the SEG and the NESA. Andco.

Circle 212 on reader service card

**Interior signage system** is designed for the simple updating of office signs. A key-like device permits easy removal of the inside portion of the sign. A letter-guide kit and format guide allow for quick and uniform in-office sign making. The cost effective system features the back-up and service of a 17-year-old company. Innerface.

Circle 213 on reader service card

**Rule System**, designed by Lee Manners, offers customized signage for interior health care and corporate signage needs. The signs are fabricated for permanent or changeable applications. Horizontal lines are silk screened onto the transparent surface of the sign with all visible information inserted behind the ruled surface. Changeable inserts are white acrylic with silk screened graphics. Off the shelf inventory of certain items in the system allows for quick delivery. Adelpia Graphic Systems.

Circle 139 on reader service card

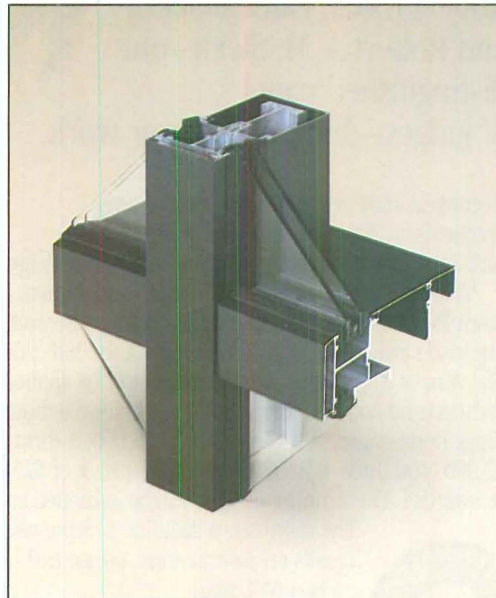
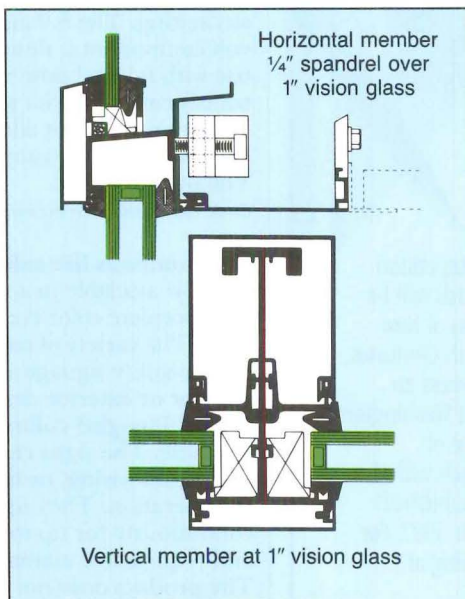
**Three-dimensional exit signs** offer high visibility in industrial and institutional workplaces. Two 7 x 10 inch sign surfaces extend out from the wall and meet at a right angle to promote identification in three directions. The red and white signs meet OSHA letter size specifications. Luminous signs are also available. Seton Name Plate Corp.

Circle 140 on reader service card

(continued on page 110)



# Introducing the Series 3600 Curtain Wall System from United States Aluminum Corporation



## Design Features

**Thermally Improved** — Interior aluminum thermally isolated from the exterior in the joint areas by 1/8" injection molded nylon isolator clips. CRF rating of 67 as tested in accordance with AAMA 1502.7 and 1503.1.

**Labor Savings** — Completely factory fabricated stick system designed for inside erection and glazing. System allows for reglazing of spandrel lites from the exterior. Adjustable vertical glazing beads readily accommodates 1/4" and 1" glazing infills.

**Gaskets** — Molded exterior closed-cell sponge neoprene gaskets and E.P.D.M. interior wedge gaskets provide a completely dry glazed system.

**Horizontals** — Lap joint construction of horizontals to verticals provide for positive seal and expansion. Horizontals contain two baffles with snap on exterior covers which create a beveled water shed edge.

**Corners** — Standard low profile 90 degree and 135 degree outside corners are available.

**Performance** — Certified test reports that meet or exceed AAMA 501 standard test procedure for ASTM: E-283 air infiltration, E-330 structural performance & E-331 water penetration, are available.

Available in clear, bronze or black anodized finish or custom painted to architect's specification.



For complete information call 1 (800) 527-6440, in Texas call 1 (800) 442-3247, or write:

## United States Aluminum Corporation

Manufacturing Facilities

3663 Bandini Blvd.  
Vernon, California 90023  
Telephone (213) 268-4230

200 Singleton Drive  
Waxahachie, Texas 75165  
Telephone (214) 937-9651  
or (214) 299-5397 metro

6969 West 73rd Street  
Chicago, Illinois 60638  
Telephone (312) 458-9070

720 Cel-River Road  
Rock Hill, South Carolina 29730  
Telephone (803) 366-8326



Find out exactly what Thomas H. Beeby, Paul Buckhurst, Alan Chimacoff, Robert F. Fox, Vincent Scully and Robert A. M. Stern—our distinguished panel of judges—think about your work.

Registered architects under 40 years of age, practicing in New England, New Jersey or New York State, are invited to enter a unique home design competition.

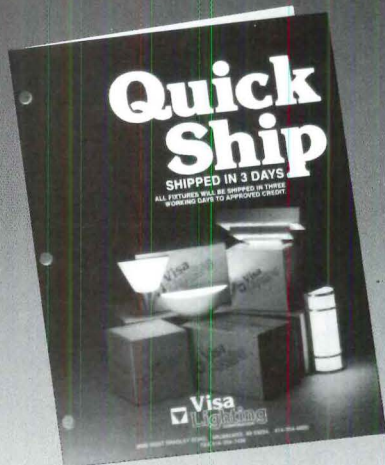
The topic is a private country home and garden. Awards will be given for design excellence and the creative interpretation of New England's rural domestic architecture of the 18th and 19th Centuries. The winner will receive \$10,000 which will be applied toward an architectural commission to build the first-prize home at Washington Ridge Conservancy. A second prize of \$5,000, a third prize of \$2,000, and three 'honorable-mention' prizes of \$250 each will also be awarded. The winning designs will be exhibited and published.

The submission deadline is September 30, 1987. For details on how to enter, please call Liz King at (212) 925-4646.



## Washington Ridge Conservancy

Sponsor: L.M. Dalton Corp., 260 West Broadway, New York, NY 10013



Visa Lighting is currently offering a selection of lighting fixtures from their extensive product line for Quick-Ship. Fixtures listed in their brochure will be shipped in three days from receipt of qualified order.

To obtain a brochure, write or call



8600 W. BRADLEY RD., MIL., WI 53224, 414-354-6600  
AN OLDENBURG GROUP COMPANY

Circle No. 356 on Reader Service Card

**Voltarc Lite-Set Pulser** is a single unit that provides safe, effective dimming for indoor neon signage in one solid state component. The plug-in unit features variable flashing speeds, from one to fifty flashes per second, independent of the intensity setting. The 5.0 amp, 120 volt component is designed for use with normal power factor transformers. A trim screw in the face of the unit allows for easy flash rate adjustment. Voltarc Tubes Inc.

Circle 141 on reader service card

**Self-luminous life-safety signs** are now available in a range of 126 faceplate color combinations. The variety of colors allows exit or safety signage to match interior or exterior design motifs. Day-glo® colors are also available. The signs require no electricity, wiring, or batteries for operation. They operate continuously for up to 20 years and require low maintenance.

The product does not use phosphorescent or fluorescent materials. Brandhurst Inc.

Circle 142 on reader service card

**Multi-cabinet** offers multiple options for indoor-outdoor signage. The glazed cabinet can be wall mounted or freestanding. The cabinet interior comes with a smooth steel back plate and magnets to accommodate paper products, or with a studded back plate for use with a modular lettering system. Internally lighted units are also an available option. The cabinet features a stove enameled frame finish and is furnished with a cylinder lock. A wide range of sizes and over 30 painted or anodized standard colors are offered. Custom orders are welcome. Modulex, Inc.

Circle 143 on reader service card

**Electric Awning Signs** legislation, zoning, permits, and codes are thoroughly discussed and interpreted in a reprint from the October 1986 issue of the *Signs of the Times*, magazine. The eight-page brochure provides insight into the advantages of electric space frame awning signage in terms of graphics, color, light, and physical protection. The informative literature speaks to both the sign industry and the sign user. Further guidance is provided by suggested electric awning guidelines for existing local sign codes. National Electric Sign Association.

Circle 214 on reader service card



**System 2/90** ceiling cube signage offers flexible directional information and simple installation. Removable corner caps allow for simple updating of information inserts. The cube comes in sizes of 2 x 2, 2 x 4, 3 x 3, and 4 x 4 feet to accommodate any ceiling grid. Installation requires no tools, with convenient placement either from above or below the ceiling. All materials are kept in stock for quick shipment. Replacement inserts are shipped in 24 hours. Open Plan Accessories.

Circle 144 on reader service card

**Sign-On®** card holder strips are a 3/4-inch plastic strip that may be custom cut to any length up to 60 inches. The product is designed to hold a range of paper products from memos and cards to larger poster size objects, which may be inserted in the top or bottom half of the holder. Three color combinations are offered. Each strip has a foam tape backing for simple installation on walls and doors. Brevis Corp.

Circle 145 on your reader service card

**Two-tone Plexiglass letters** for interior signage are available in sizes up to 10 inches. The two-tone effect is created by the hot stamping of a foil layer onto the face of a standard colored 1/8-inch-thick Plexiglass letter form. The foil is available in silver, gold, and wood grains. Both polished and matte finishes are offered in the metallic surfaces. A wide range of type faces are available. All of the letter forms are offered with adhesive backing. Scott Plastics Co.

Circle 146 on reader service card

**The 1987 Product Planning Guide** outlines and illustrates over 50 letter styles. The field guide details type face and height, color and finish, and material thickness availability. Letters are fabricated in injection molded plexiglass and high density polystyrene foam as well as gypsum and vinyl. The guide is available by writing Scott Plastic Company, P.O. Box 1047, Tel-lest, Fla. 34270.

(See P/A Technics, p. 102)



# P/A Awards Program

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ARCHITECTURE

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PLANNING

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RESEARCH

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## JURY FOR THE 35TH P/A AWARDS

**Progressive Architecture** announces its 35th annual P/A awards program. The purpose of this competition is to recognize and encourage outstanding work in Architecture and related environmental design fields before it is executed. **Submissions** are invited in the three general categories of architectural design, urban design and planning, and applied architectural research. Designations of first award, award, and citation may be made by the invited jury, based on overall excellence and advances in the art.

**Architectural Design:** *J. Max Bond, Jr.*, Bond Ryder James Architects, New York; *Charles Gwathmey*, Gwathmey Siegel & Associates Architects, New York; *Fumihiko Maki*, Maki and Associates, Tokyo; *Rob Wellington Quigley*, Rob Quigley Architects, San Diego, Calif.

**Urban Design and Planning:** *Diana Balmori*, Partner for Urban Design and Landscape, Cesar Pelli & Associates, New Haven, Conn.; *Peter Calthorpe*, Calthorpe Associates, San Francisco, Calif.

**Research:** *Jay Farbstein*, President, Jay Farbstein & Associates, San Luis Obispo, Calif.; *Michael L. Joroff*, Director of Laboratory of Architecture and Planning, Massachusetts Institute of Technology, Cambridge, Mass.

**Judging** will take place during October 1987. Winners will be notified, confidentially, before October 31. Public announcement of winners will be made at a ceremony in New York on January 22, 1988, and winning entries will be featured in the January 1988 P/A. Clients, as well as professionals responsible, will be recognized. P/A will arrange for coverage of winning entries in national and local media.

*Turn page for rules and entry forms.*

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**DEADLINE FOR SUBMISSIONS: SEPTEMBER 8, 1987**

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## Entry form: 35th P/A Awards Program

Please fill out all parts and submit, intact, with each entry (see paragraph 14 of instructions). Copies of this form may be used.

Entrant:  
Address:  
Credit (s) for publication (attach additional sheet if necessary):

Entrant phone number:  
Project:  
Location:  
Client:  
Client phone number:  
Category:

Entrant:  
Address:  
Project:

I certify that the submitted work was done by the parties credited and meets all Eligibility Requirements (1-7). All parties responsible for the work submitted accept the terms of the Publication Agreement (8-9). I understand that any entry that fails to meet Submission Requirements (10-18) may be disqualified. Signer must be authorized to represent those credited.

Signature \_\_\_\_\_  
Name (typed or printed): \_\_\_\_\_

**Awards Editor/Progressive Architecture**  
600 Summer Street, P.O. Box 1361, Stamford, CT 06904

Project:  
Your submission has been received and assigned number:

Entrant:  
Address:

(Receipt)

**Awards Editor/Progressive Architecture**  
600 Summer Street, P.O. Box 1361, Stamford, CT 06904

Entrant:  
Address:

(Return label)

### Eligibility

**1** Architects and other environmental design professionals practicing in the U.S. or Canada may enter one or more submissions. Proposals may be for any location, but work must have been directed and substantially executed in U.S. and/or Canadian offices.

**2** All entries must have been commissioned, for compensation, by clients with the authority and intention to carry out the proposal submitted. (For special provision in Research category only, see Item 6.) Work initiated to fulfill academic requirements is *not* eligible (but project teams may include students).

**3** Prior publication does not affect eligibility.

**4** Architectural design entries may include only buildings and complexes, new or remodeled, that are scheduled to be in any phase of construction in 1988. Indicate *schedule* on synopsis page (Item 12).

**5** Urban design and planning entries must have been accepted by the client, who intends to base actions on them in 1988. Explain *implementation plans* on synopsis page (Item 12).

**6** Research entries may include only reports accepted by the client for implementation in 1988 or research studies undertaken by entrant with intention to publish or market results. Explain basis of eligibility on synopsis page (Item 12).

**7** The jury's decision to premiate any submission will be contingent on verification by P/A that it meets all eligibility requirements. For this purpose, clients of all entries selected for recognition will be contacted by P/A. P/A reserves final decision on eligibility and accepts no liability in that regard. Please be certain entry meets above rules before submitting.

### Publication agreement

**8** If the submission should win, the entrant agrees to make available further graphic material as needed by P/A.

**9** In the case of architectural design entries, P/A must be granted the first opportunity among architectural magazines for feature publication of any winning project upon completion.

### Submission requirements

**10** Entries must consist of legibly reproduced graphic material and text adequate to explain proposal, *firmly bound* in binders no larger than 17" in either dimension (9" x 11" preferred). No fold-out sheets; avoid fragile spiral or ring bindings.

**11** No models, slides, films, or videotapes will be accepted. Original drawings are not required, and P/A will accept no liability for them.

**12** Each submission *must include* a one-page synopsis, in English, on the first page inside the binder, identifying the project and location, clarifying eligibility (see Item 4, 5, or 6), and summarizing principal features that merit recognition in this program.

**13** To maintain anonymity, no names of entrants or collaborating parties may appear on any part of submission, except on entry forms. Credits may be concealed by any simple means. Do *not* conceal identity and location of projects.

**14** Each submission must be accompanied by a signed entry form, to be found on this page. Reproductions of this form are acceptable. All four sections of the form must be filled out, *legibly*. Insert entire form, intact into *unsealed* envelope attached inside back cover of submission.

**15** For purposes of jury procedure only, please identify each entry as one of the following: *Education, Houses (Single-family), Housing (Multiple-unit), Commercial, Industrial, Governmental, Cultural, Recreational, Religious, Health, Planning and/or Urban Design, Applied Research*. Mixed-use entries should be classified by the larger function. If unable to classify, enter *Miscellaneous*.

**16** Entry fee of \$60 must accompany each submission, inserted into *unsealed* envelope containing entry form (see 14 above). Make check or money order (no cash, please) payable to *Progressive Architecture*.

**17** P/A intends to return entries intact, but can assume no liability for loss or damage.

**18** Deadline for sending entries is September 8, 1987. Any prompt method of delivery is acceptable. Entries must show postmark or other evidence of being en route by midnight, September 8. Hand-delivered entries must be received at street address shown here, 6th floor reception desk, by 5 p.m., September 8.

### Address entries to:

Awards Editor  
Progressive Architecture  
600 Summer Street  
P.O. Box 1361  
Stamford, CT 06904



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Summitville Olde Towne quarry and brick, in nine natural colors, combines the look of early America with the quality and durability today's homeowners demand.

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And Summitville is made in America, with 75 years of craftsmanship that meets or exceeds ANSI building standards.

Olde Towne is just one of the many styles available from Summitville's extensive ceramic tile line. You can see the entire collection in your Sweet's File 09300/SUM.

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Summitville Tiles Inc.  
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Circle No. 353



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How you finish your partition or load bearing walls matters as much as the ideas you started them with. The same goes for your metal and wood furniture elements. Fortunately, with Borden's input, you can coordinate those new ideas with the widest selection of compatible colors, textures and patterns in metal and wood vinyl laminates and wallcoverings — for an office system that really puts out, whatever the substrate!

This synergy between your systems and our finishes has been largely responsible for creating today's simple, unified, more productive office interior. Together, that's quite an output. It's also made Borden your number one source for decorative finishes. For further input contact: COLUMBUS COATED FABRICS, Division of Borden Chemical, Inc., Columbus, Ohio 43216. Phone (614) 297-6060.



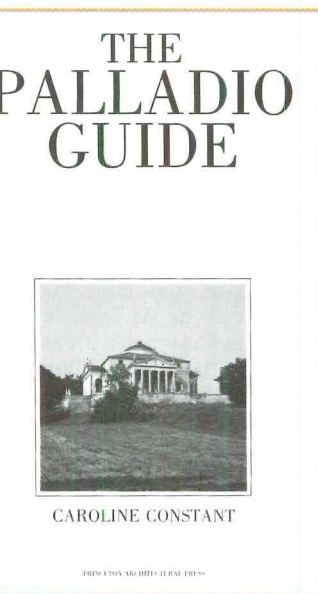
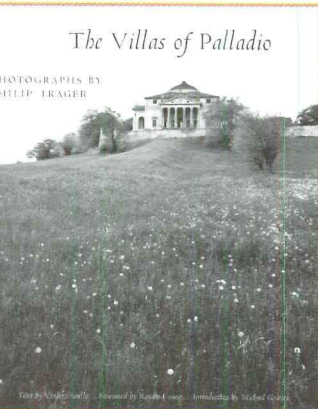
GUARD® DECORATIVE FINISHES

Circle No. 316



**The Villas of Palladio Photographs** by Philip Trager, Text by Vincent Scully, Foreword by Renato Cervese, Introduction by Michael Graves. Boston, Little, Brown & Company; A New York Graphic Society Book, 1986. 167 pp., \$45.00.

**The Palladio Guide** by Caroline Constant. Princeton, Princeton Architectural Press, 1986. 160 pp., \$17.00.



## Palladio's Villas

Philip Trager beautifully records his impressions of a master architect's work in *The Villas of Palladio*. With this volume Trager has done something extraordinary—he has managed to transcend the boundary between the use of the photographic image as visual documentation and its use as a vehicle for artistic expression. If you love architecture and you think that this is just another picture book of Palladio's work, you will be pleasantly surprised to discover that it is more, much more. Its images could easily stand apart from their subject as works of art in their own right. It is therefore just as possible that those who love photography might have an equally limited view of this book's value. That Trager has managed to create something that satisfies either set of expectations, and which exceeds them both, is testament to his skill. As a man whose passions obviously cross the boundaries, he has managed to walk this knife's edge with all the confidence of one who swallows swords, taking apparent pleasure in the doing, and providing all of us with a work of substantial value.

If buildings could be, so to speak, unclothed, then what Trager has done is analogous to rendering Palladio's architecture nude. He has taken some of the most familiar buildings of the Renaissance and jarred that familiarity by creating at once an atmosphere of intimacy and detachment. The black-and-white images present deserted landscapes, casting the viewer as a lone intruder into these buildings' private worlds. This relationship is slightly discomfiting, a sensation heightened by ominously cloud-filled skies and sterile, white sunlight. We are permitted a glimpse of the souls of these buildings; our definition of them according to human activity is peeled away, and that which exists apart from it laid bare.

The effect is surreal. These  
(continued on page 116)

## The Palladio Guide

The genre of the architectural guidebook is randomly populated by collections of the significant works of a particular architect or of a place. There are large differences in the scope and intended audiences of these books, and frequently they overlap each other in material covered. Thus when a new one is published that seems to fill a long-felt void it is met with great anticipation. *The Palladio Guide* by Caroline Constant is such a book. As a guidebook to the works of Andrea Palladio, its espoused intention is to assemble in one place for the first time the practical information necessary to tour them. The idea of this book is commendable not merely because it fills a gap, but because its subject is Palladio—an architect whose historical significance is undisputed and regularly attested to by his pervasive influence throughout time.

Perhaps it is the eagerness of the anticipation that may account in part for the tempered nature of this reception. Constant has chosen to use the guidebook as a venue for the presentation of some of her own theories about Palladio's work. She maintains that there is an underlying spatial attitude and an integral relationship to the site, which Palladio's buildings share, but which is often ignored. Contrary to previous considerations of Palladio's work, which treated his buildings as isolated pavilion/objects, she asserts that analysis of the villa compositions taken in their entirety reveals a new level of complexities. At first glance it seems the inclusion of this critical analysis would enhance the value of the book as tool. It appears, however, that in effecting this synthesis of fact and idea, a certain amount of clarity had to be compromised. The end result, though still a commendable effort, does not quite live up to expectations.

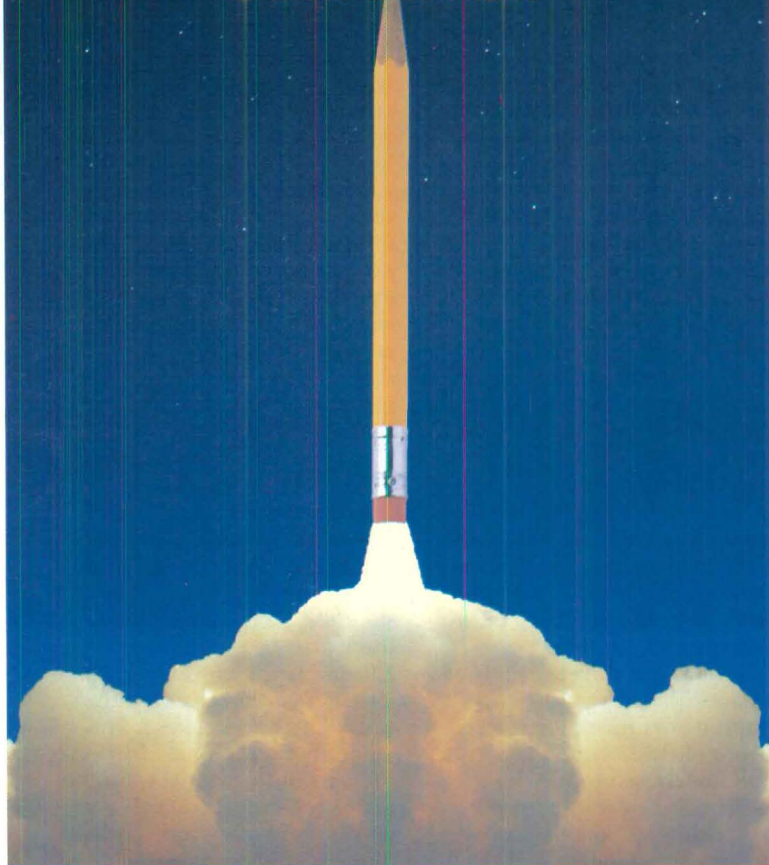
The book begins with a biographical note followed by a brief introduction and a num-

bered chronological listing of the buildings. It is then broken down into a series of articles, each devoted to a single building. In the rear are a selected bibliography and the maps. The articles, which make up the main body of the book, vary in length from one to three pages, and provide information about visiting the buildings as well as historical and physical descriptions of them. The articles also provide the platform for the presentation of the author's ideas as they are illustrated in the particular work. It is in the content and arrangement of these articles that we feel the effects of compromise. The historical descriptions are limited to pertinent dates and the names of patrons, while the physical descriptions are biased towards those elements that relate directly towards the argument at hand. Furthermore, contrary to the standard guidebook format, these articles are arranged chronologically by date of construction, rather than geographically. This necessitates a fair amount of additional effort on the part of the tourist trying to plan a logical itinerary. It also makes good maps indispensable if one is going to make sense of the unusual order; those provided are too diagrammatic to be of use for anything other than getting a feel for the relative disposition of Palladio's buildings throughout the Veneto.

It is clear that the format shift lends itself to the logic of the critical analysis, as do the descriptions. By chronologically wading through his works, Constant hopes to reveal patterns that become evident within Palladio's evolving style. What is unclear is why Constant chose to couch her analysis in a guidebook format. Perhaps the answer to this question lies in the nature of her theories. Spatial relationships are best understood through direct experience. In much the same way that a professor of architecture illustrates arguments with slides, it would seem Constant wishes to illus-  
(continued on page 116)



# ASTRONAUTS MEMORIAL DESIGN COMPETITION



The Astronauts Memorial Foundation announces a competition for a memorial to the astronauts who have lost their lives in the pursuit of space exploration. The memorial must be a lasting, inspirational tribute to these astronauts and, above all, it must stand for their achievements. It will be built, subject to NASA's approval, at the Kennedy Space Center where it will be accessible to an estimated 2.5 million visitors annually.

An architectural commission plus \$50,000 in prizes will be awarded by a nationally renowned jury. The competition is open to all U.S. citizens.

Submissions, limited to two 20" x 30" boards, will be due December 11, 1987. To receive your program as soon as possible, register by sending \$50 (payable to Competition, Astronauts Memorial Foundation) to:

**Astronauts Memorial Foundation**  
2121 Camden Road  
Orlando, FL 32803

Programs will be available in September. No registrations will be accepted after October 1, 1987. For more information, write to the above address or call (305) 898-3737. The competition advisors are Lawrence P. Witzling and Jeffrey E. Ollswang.



**The Astronauts  
Memorial  
Foundation**

The Astronauts Memorial Design Competition is sponsored by Southern Bell and a grant from Allied-Signal Inc.

Circle No. 317 on Reader Service Card

(continued from page 115)

images call to mind the timelessness of a deserted amusement park. There, as here, the forms seem to contain the memory of many human experiences, whose presence is felt in the sounds of former life that hang hauntingly in the air. Here one can hear vendors hawking their Villa Rotunda miniatures to tourists or, just as easily, the sounds of daily life in the 16th Century as Palladio might have heard them. This awareness of time is heightened by the seasonal changes that take place through the book as well as in the capturing of more ethereal natural phenomena, such as a chance morning fog.

Yet *The Villas of Palladio* remains a book about architecture. Trager employs a changing scope that lets us see the buildings as if we were walking around them ourselves. Views toward the buildings from a distance or from the building looking out to the countryside reveal relationships with the landscape which are rarely seen in other documentation of Palladio's work. Fragments and interior views demonstrate the joy Trager takes in the recording as well as in his ability to select those elements that help bring the architecture into focus; there is a series devoted to the nymphaeum at the Villa Barbaro that alone makes the book worth the price. These images take on added interest as one investigates Michael Graves's assertion, made in the introduction of the book, that the picturesque fragment might be seen as a force at play in Palladio's work.

Graves's introduction gives us the impressions of a contemporary architect who shares with Palladio an interest in the language of Classicism. It is preceded by an authoritative and beautifully written Foreword by Renato Cervesè, the founder and director of Italy's *Centro Internazionale di Studi di Architettura "Andrea Palladio."* The text accompanying the photographs is by Vincent Scully and is, as one might expect, fervent in its demeanor. Scully's evocative and melodic descriptions seem aptly suited for Trager's endeavor, for he frequently attributes human characteristics to the buildings. Perhaps more important, though, Scully shares a love for the architecture that is inevitably felt. His are not mere descriptions, but adorations. All of this helps bring the buildings to life and, perhaps, allows us to think of them as things that do indeed have souls.

In the Introduction Michael Graves observes: "Philip Trager has revealed to us a quality in Palladio's work that perhaps none of us has seen before." Renato Cervesè likens the experience to reliving the emotion felt upon viewing the villas for the first time. It is clear that in *The Villas of Palladio* Trager has rendered Palladio's architecture in such a way that it has a renewed ability to capture our imagination. Its familiarity is ultimately what makes this transformation so startling, and so delightful. **John DiGregorio**

(continued from page 115)

trate hers through physical experience, which is necessary to understand her ideas about the spatial qualities of Palladio's work. Here, I believe, we have the unstated *raison d'être* for *The Palladio Guide*. Instead of being a secondary element, the inclusion of the analysis would appear to have been the driving force behind the book. *The Palladio Guide* suffers from a mild identity crisis.

This is unfortunate, for the idea of providing an interpretive field guide is as intriguing as a guidebook to Palladio's work was felt to be overdue. This, however, calls into question the appropriateness of calling the book *The Palladio Guide*. It is not an objective guidebook in the tradition of the AIA guides, and given that Constant's ideas constitute the heart of the book, it seems that some indication of their presence would have been desirable.

Although this marriage of fact and idea proves to be ill at ease with itself, there is much in it that will benefit those travelers enamored of Palladio's work as well as those looking for the intellectual stimulation of an interpretive account. The crossed signals are perhaps not so important as this intriguing concept, which Constant may have inadvertently provided us, and which will serve well as an example for similar endeavors in the future.

**John DiGregorio**

*The reviewer is a student of architecture at Harvard's Graduate School of Design.*



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on for Contract Textiles

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### See the Future Today

Join us and the editors from  
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*Facilities Design & Management*,  
*Interior Design*, *Interiors* and  
*Progressive Architecture* for an  
afternoon of seminars highlighting  
future trends in fabrics

### 2:00-3:30 pm

Upholstery and Vertical Applications  
for Health Care and Hospitality

### 4:00-5:00 pm

Vertical Applications and Drapery  
for Corporate Use

### 5:30-6:30 pm

Upholstery for Corporate Use

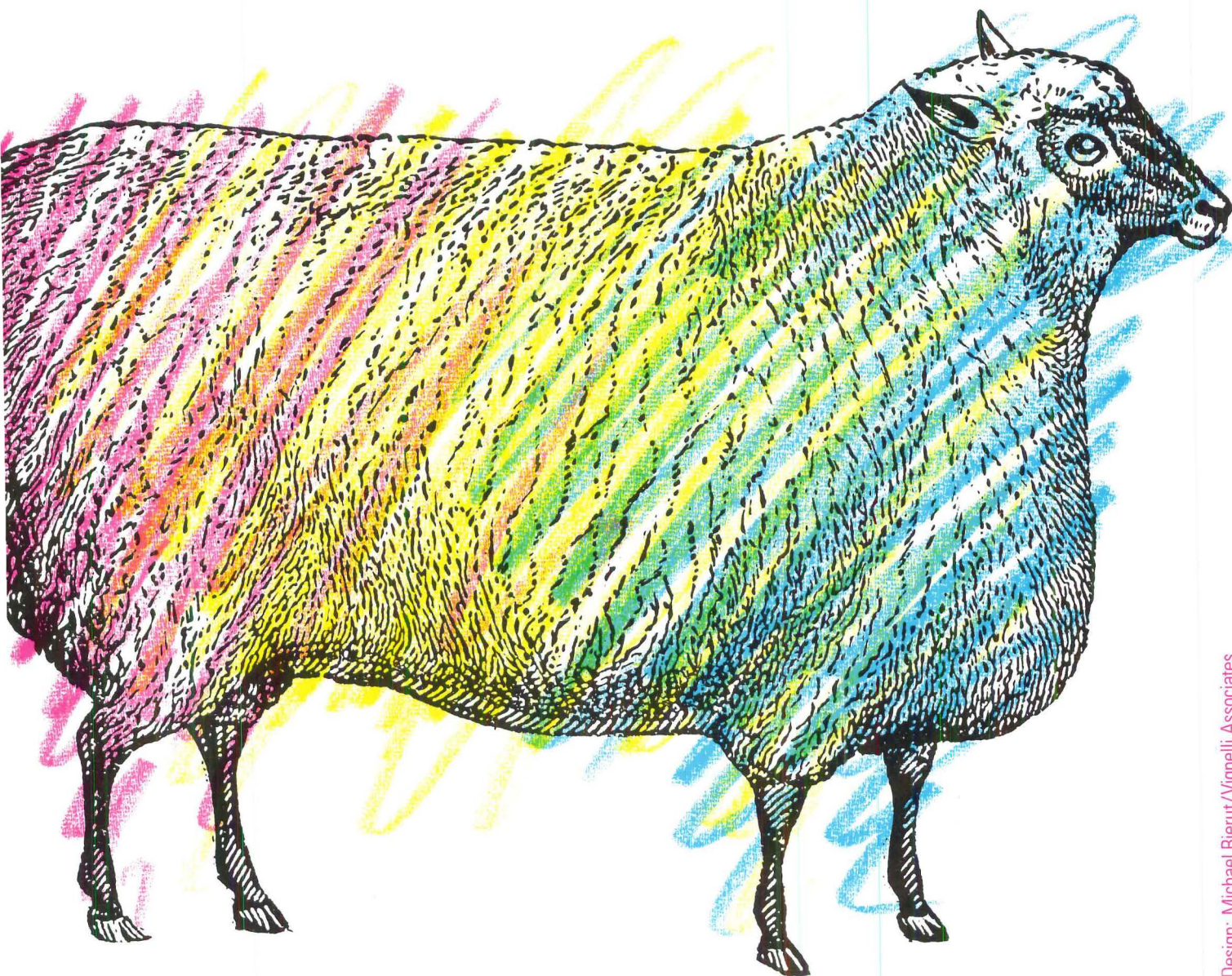
### Following

Cocktail Party hosted by ACT

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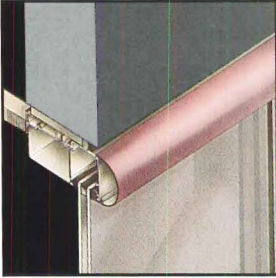
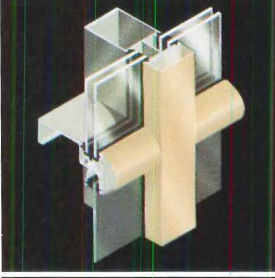
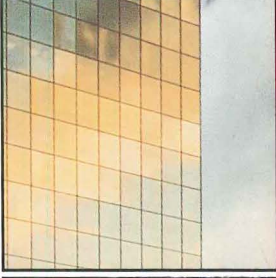

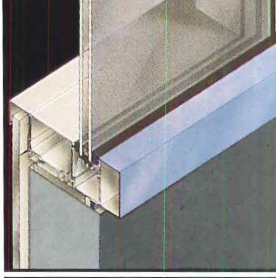
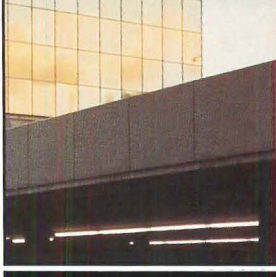
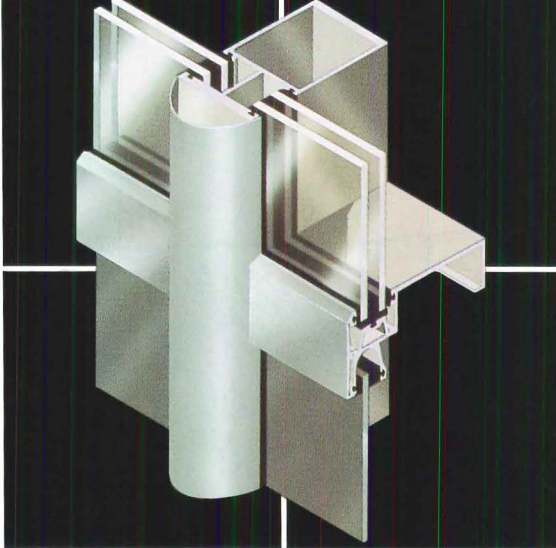

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# Context: The National Contract Textile Fair





# Horizon

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# New Products and Literature

108 **Technics-Related Products**  
130 **New Products and Literature**  
continued



## Designs for Sitting

Over the last few years, the North Carolina-based Bernhardt Furniture Company, led by the energetic husband-and-wife team of Anne and Alex Bernhardt, has been making its presence felt in the contract furniture world. Already a successful manufacturer of residential furniture, Bernhardt turned its energies to office casegoods and seating and commissioned graphic designer Michael Vanderbyl to design its graphics and showrooms. At NEOCON, the company made an even bigger splash by introducing the Opus Collection—nine chairs by five prominent architects and de-

signers, all of whom were asked to design a wood chair (or two), preferably within the parameters of Bernhardt's considerable production capabilities. Five of the chairs are shown here. Mark Mack's wood Haus Rocker (top left) addresses people's tendency to tip backward in their chairs. Paul Haigh's Sinistra chair (named for its upward sweep to the left, but also available in the "right-handed" version shown at top right) is made of maple and an anigre veneer that alludes to fine musical instruments. Lella Vignelli's Capricorn chair (bottom left) combines mahogany-finished maple and leather upholstery. Michael Vanderbyl

design with the Mills chair (bottom center); its gridded back and plain lines clearly refer to Charles Rennie Mackintosh's designs. The spirit of courthouse chairs, with a hint of the garden furniture aesthetic in its slatted structure, characterizes Andrew Belschner's Waterfall chair (bottom right). Bernhardt's plan to work with five such different designers on one collection was ambitious; its execution of the plan, from commission to production in six months, is astonishing. Bernhardt Furniture Company.

Circle 100 on reader service card



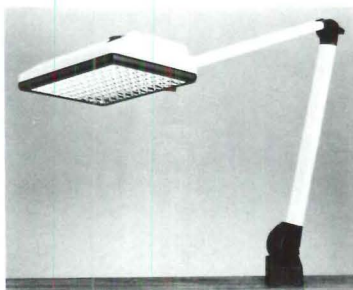
**Color Chips** tile selection tri-fold card shows Mid-State's entire white body line. There are Brights, Mattes, Crystals, Sea-view, Sahara, and Images. A handy reference chart gives trim, size, and product application information. The kit is available for \$5.99 from Mid-State Tile, P.O. Box 1777, Lexington, NC 17293-1777.

**Corewall®** fully insulated, prestressed, precast concrete wall panels offer energy efficiency, strength, and fire resistance at a competitive price. Panels feature a rough-textured rib on the exterior face and a smooth interior face that is ready to paint and easy to clean. A six-page brochure describes Corewall's strength, rapid installation, and the economies of single-wall erection. Tindall Concrete Georgia, Inc.

Circle 200 on reader service card

**European TS and American DC door closers** are offered in a variety of colors to match colored door hardware available from various manufacturers. The line will include bright yellows, greens, blues, and reds, as well as softer shades and basic blacks. Dorma Door Controls, Inc.

Circle 104 on reader service card



**The Cad-Lite** is designed to keep overall illumination levels low enough to maintain VDU contrasts while providing enough light for reading reference documents. A parabolic louver focuses light on the work area, but restricts stray light from causing glare on the VDU. Two 9-watt PL-type lamps have 10,000-hour life. Waldmann Lighting Co.

Circle 105 on reader service card

**Thru-Put™ Xerographic Copy Products** for all sizes of plain paper copiers include bond, velum, and film products. A six-page brochure contains useful applications information and a guide to sizes and packaging showing standard sizes available in both cut sheet and roll formats. Azon Corporation.

Circle 201 on reader service card



**Geo Tables**, designed by Roger Kraft, have 3/4-inch clear glass tops on supports of heavy-gauge round tubular steel and flat steel frames. Table top diameters are 43, 30, and 20 inches; heights are 29, 17, and 16 inches, respectively. Support finishes are Images Polycolors. Images of America, Inc.

Circle 106 on reader service card

**Clearseal III™** invisible long-term wallcovering protection with built-in stain resistance is available on a custom basis for most Guard® Types I, II, and III commercial wallcoverings from Columbus Coated Fabrics. Compared with untreated wallcoverings, those with Clearseal III offer improved cleanability and resistance to stains. There is no loss of texture or definition in the embossing detail, and its application does not affect installation. Wallcoverings with this protective coating have a Class A fire rating and are suitable for hospitals, healthcare facilities, and high-traffic public areas. Columbus Coated Fabrics, Borden, Inc.

Circle 107 on reader service card

**The Multiplex System 5000** UL-listed fire detection and alarm control panel monitors up to 72 fire zones and provides control for up to 48 outputs. Functions include alarm verification and time-delayed controls to minimize nuisance alarm problems. The monitoring and control points can be used exclusively for fire management, or integrated into security, lighting, or energy management systems. Johnson Controls, Inc.

Circle 108 on reader service card

**Sixteen wall sconces** offered in a "Quick Ship" program will be shipped within three working days of receipt of order. There is a variety of sconces in glass, polished solid brass, polished chrome, brushed aluminum, acrylic, plastic, or with a painted finish. Lamping is incandescent, fluorescent, or quartz halogen. Visa Lighting Corp.

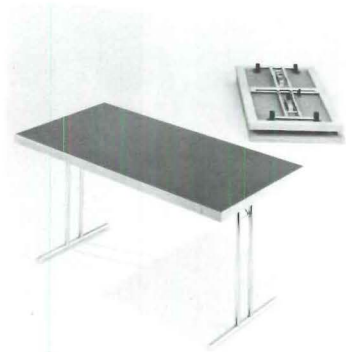
Circle 109 on reader service card

**Motion Sensor model M750** is a solid-state device that assures that lighting is on only when a room or area is occupied. When someone enters the controlled area, the sensor turns lights on instantly. Once no motion is detected, power is turned off automatically after a user-selected time delay. It can also control ventilating and exhaust fans, space heaters, and self-contained air-conditioning units. Tork.

Circle 110 on reader service card

**The GT System 500** manual door closer and automatic door opener was developed to prevent doorways from becoming barriers to the physically handicapped. Actuators include mats, wall or pushbutton switches, and microwave detectors. Standard models fit doors from 36 to 49 inches wide and are completely self-contained for surface mounting at low installation cost. Gyro Tech, Inc.

Circle 111 on reader service card



**The Encore folding table** features dual column folding legs, securely locked in position by easy-to-operate, heavy steel mechanisms. The tables are available with optional self-leveling locking connectors and have a suspended corner round extension insert to accommodate any room configuration. Free-standing tables also adapt as work tables and desks. They fold compactly and stack for storage. Fixtures Furniture.

Circle 112 on reader service card

**SiliconSeal™ door gasketing** for fire-rated openings remains flexible below -100 F and resilient above +400 F. It helps seal out smoke and fire and can minimize sound generation and transmission from room to room. As a door seal it keeps out dust, weather, and insects, saves energy, and reduces maintenance. The material is unaffected by sunlight, ozone, and ultraviolet and is impervious to fungus and mildew. Pemko.

Circle 113 on reader service card

(continued on page 132)



**The Pinocchio chair** has a tilt mechanism that allows the angle between the seat and backrest to open up for a relaxed seated position. Resistance in the tilt of the chair is controlled by a torsion spring set to the user's body weight. A fingertip gas lift control adjusts seat height. There is also a guest chair in a sled-base version with arms. All frames are black; there are seven standard color stains applied to a beechwood seat and back. Harter Corporation.

Circle 101 on reader service card

**A swing-up grab bar** mounts beside lavatories or toilets for handicap requirements. It extends 29 inches from the wall and provides maximum support when lowered to its horizontal position. The bar swings up out of the way for ease of access and departure. For hotels, hospitals, and nursing homes, the Model B-4998 bar is constructed of 1 1/4-inch-diameter satin finish stainless steel tubing with exposed mounting. Bobrick Washroom Equipment, Inc.

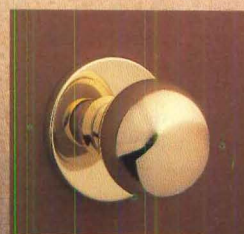
Circle 102 on reader service card

**Window Manager®** combines two individually controlled shade layers: a sunscreen for controlling the sun's glare or overheating while maintaining an exterior view; and a blackout shade for full light control. Side tracks are a combination of Lexan® with a polyester liner that holds each layer taut. All screen/shading materials are easy to maintain and fire retardant to meet fire codes. The materials are available in several colors and textures. Appropriate Technology Corp.

Circle 103 on reader service card



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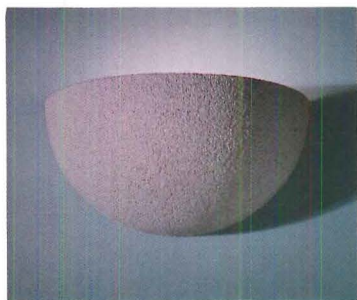
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**A textured concrete wall light**, Model 331-1, in a quarter-sphere design has wide application. Colors are light rose, soft green, gray, and ivory, as well as custom concrete tints for quantities over 25. Lamp options are 60-watt incandescent, 7- or 13-watt compact fluorescent, or 300- or 500-watt quartz-halogen for high intensity indirect lighting. D'Lights.

Circle 114 on reader service card

**Rideau™ vertically pleated window treatment** is a continuous sweep of fabric. It moves effortlessly along an upper track, does not require cords, chains, or weights, and is easy both to install and to operate. Rideau can be operated by hand, baton, or optional traverse cord. It opens from either end and stops at any position, with consistent pleat spacing across the entire expanse; every five feet of width stacks compactly in 6½ inches. Verosol.

Circle 115 on reader service card

**Arrowood composite structural framing material** is 1½-inch-thick oriented strand board sandwiched between multiple layers of wood veneers. Developed by the U.S. Forest Service and HUD, it is uniform in strength, stiffness, weight, and appearance. It remains free of bow, crook, cup, twist, and warp, and is virtually knot-free, according to the manufacturer. Tests have shown that it is stronger than many species commonly used for construction framing and that it has superior nail-holding characteristics. Arrowood.

Circle 116 on reader service card

**Simplex Finestone exterior insulated finishes** provide energy conservation for commercial and residential new construction and renovation projects. The finish is easily applied to exterior grade gypsum sheathing, brick, block, poured concrete, or curtain walls. It can be field-applied or panelized and is available with standard or high-impact mesh to meet application requirements. Simplex Products Div.

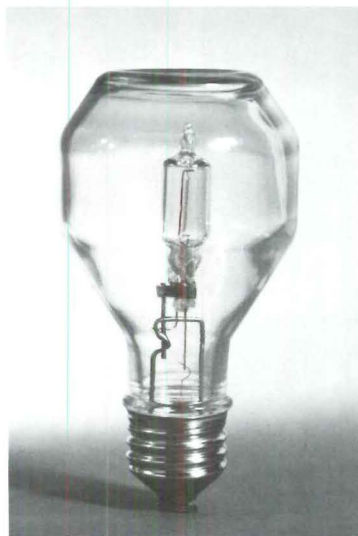
Circle 117 on reader service card

**Micro™ halogen lamp** was designed by Ramon Bigas and Pep Sant of Associate Designers, Barcelona. It uses either a weighted tabletop base or a clip-on base and interchangeable wireless arms. Micro can be high or low for reading, working, accent, or area lighting, depending on how components are attached to one another. Zelco Industries, Inc.

Circle 118 on reader service card

**Steel curtain walls** brochure illustrates the use of the systems on several buildings, showing their wide range of applications. Details show the features of CW-600 and CW-900 systems. Vistawall Architectural Products.

Circle 202 on reader service card



**Performance Plus™ 90-watt halogen lamp** produces the same amount of light as a conventional 100-watt incandescent lamp, but with a whiter light, according to the manufacturer. It is energy efficient and lamp life is 2000 hours, compared with 750 hours for the standard 100-watt incandescent lamp. It also is suitable for display lighting. General Electric Company.

Circle 119 on reader service card

**Ramsgate carpet** is made from Du Pont Antron® III filament nylon. It is available in a 9" x 9½" cut pile/loop pile pattern and features carved accents.

Ramsgate is a companion to Gleneagle carpet. Patcraft Mills.

Circle 120 on reader service card

**Applications and Limits of the Polycarbonate or Acrylic Lens** compares these two frequently used luminaire lens materials with respect to impact resistance, optical performance, and heat resistance characteristics. Graphs compare the reactions of each material to various HID lamps. Devine Lighting.

Circle 203 on reader service card



**March and April chairs** from Vignelli Designs have their inspiration in Shaker design and Early American wood craftsmanship. The March chair is available in arm and side versions with wood slat or upholstered back. The April chair, with wood slat or upholstered back, has gently curved arms. Both are available in the company's standard finishes as well as matte black, gray, natural cherry, or red mahogany. Hickory Business Furniture.

Circle 121 on reader service card

**Targa style-matched track lights** are suitable for both commercial and high-end residential applications. The two low-voltage fixtures use MR 16 and T-4 tungsten halogen lamps. The two line-voltage fixtures use PAR 38 and R-30 lamps to provide broader general room lighting. The lights are available in two finishes: matte white and metallic anthracite. Accessories to control glare, beam angles, and the color of light include color filters, louvers, and barndoors. Lightolier.

Circle 122 on reader service card

**System PDC® undercarpet wiring system** brochure provides a complete description of all components available for selecting, specifying, and coordinating undercarpet wiring systems for office power, data, and communications equipment. There are guidelines for designing a System PDC layout, including a typical floor plan, and illustrated instructions on the proper installation and relocation of cable and termination devices. Hubbell Inc.

Circle 204 on reader service card

**Shadows Silhouettes ceramic tile** has six different linear designs embossed within the body of each 6' x 6' tile. Geometric designs such as single or interlocking squares, hexagons, octagons, rectangles, and basket-weaves can be created. The seven colors, which match Shadows tile, are Blue Cloud, Sterling Gray, Suntan, Pale Mauve, Almond, Wet Sand, and Dark Brown. Monarch Tile Manufacturing.

Circle 123 on reader service card

**AVISO Ceramic Granite™ 12-page four-color brochure** features six finishes of the Fiandre porcelain tile line: Designer Line, polished, matte, slate, Corindo, and industrial. It provides information about sizes and colors available in each line. A chart rates the technical characteristics and physical properties of Fiandre Ceramic Granite against industry norms for such factors as water absorption, breaking strength, and abrasive hardness. Trans Ceramica Ltd.

Circle 205 on reader service card

**Summitmate natural clay tile** is available in 24 colors ranging from primaries to pastels that match contemporary bathroom and kitchen ware. They can be used in hot tubs and whirlpool baths, to enhance walls, to form murals and decorate mantels, and for countertops, backsplashes, and some floors. Matte and Crystal glazed Summitmate tiles can be used on walls, countertops, residential floors and light-duty commercial floors. Bright glaze tiles are suitable for walls only. Summitville Tiles Inc.

Circle 124 on reader service card

**Adaptafile III™ filing system** in standard heights is compatible with a range of filing systems and systems furniture panels. Available in 18 colors, the system features 12-inch openings, 30-, 36-, or 42-inch widths, and heights from two to five tiers. Made from heavy-gauge steel, the cabinets are finished in mar-resistant baked enamel and have a ball-bearing suspension system for quiet, smooth operation of drawers. Borroughs Manufacturing Corp.

Circle 125 on reader service card

**School Woodworking Dust Control** bulletin describes the environmental problem and the characteristics of woodworking dusts. The 12-page bulletin discusses the various collection system components and describes how to design and lay out a woodworking dust control system. American Air Filter.

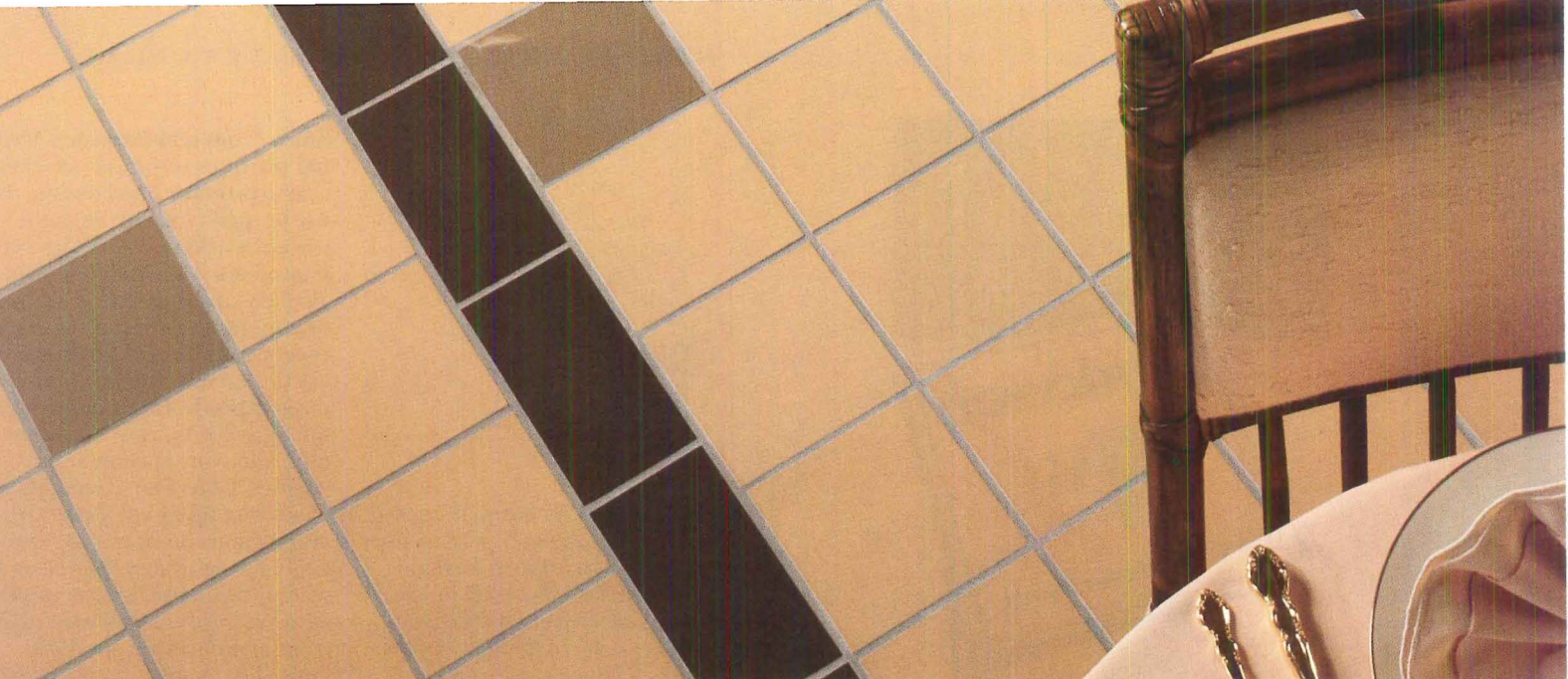
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**Flush wood doors** can be ordered with edges veneered with the same species as the faces, to blend perfectly. The edge veneering covers the lighter colored crossbanding just beneath the faces. This feature is also available on the company's flush wood fire doors. Algoma Hardwoods, Inc.

Circle 126 on reader service card

(continued on page 134)





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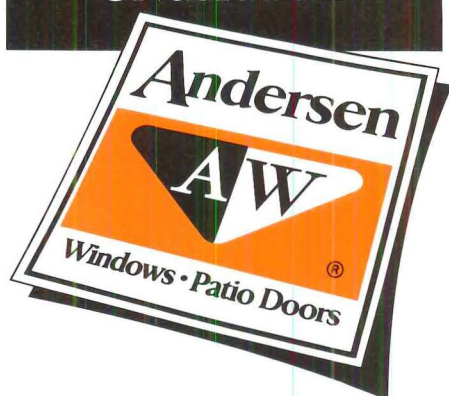
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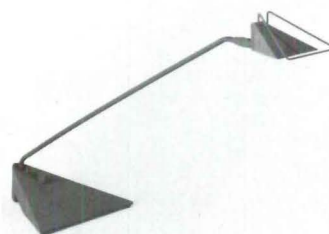
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87135 © 1987 Andersen Corp.



**The Hawk table lamp**, designed by Piotr Sierakowski, is 18 inches tall and has a 10-inch triangle base with a black nextel finish. The shade swivels 360 degrees, and the arm rotates 60 degrees. It uses a 50-watt halogen lamp and has a high-low base switch. Koch + Lowy Inc.

Circle 127 on reader service card

**Ammo-Mizer-PLUS system** for Trident whiteprinters automatically controls ammonia flow so that it is on only when needed for print development and off between print runs. It reduces ammonia consumption and cost, extends the life of the absorber cartridge, and reduces the possibility of vapors reaching the office air. Dietzgen Corp.

Circle 128 on reader service card

**Da-Lite/Oravision communication cabinets and credenzas** are offered in four styles: Hamilton, Cambridge, Concord, and Lexington. The regular cabinets are available in four widths and the deluxe cabinet, with pull-out whiteboard, is 60 inches wide and 48 inches high. The Hamilton is available in mahogany, cherry, or walnut veneer. The other three styles are available in three standard laminates, six standard wood veneers, or any available laminate or veneer. Da-Lite Screen Company, Inc.

Circle 129 on reader service card

**Enduralon™ contract upholstery fabrics** are made of Allied Fibers' 100 percent Caplana™ nylon. The textured yarns give these fabrics the bulky look of wools at an economical cost. The fabric will not pill and is highly abrasion resistant and durable. It will pass all fire codes and can be treated for use in healthcare and related industries with antimicrobial and permanent water- and stain-repellent finishes. The line has 11 patterns in 15 colorations, and includes jacquards, tapestry, and multicolor prints. Craftex Mills, Inc. of Pa.

Circle 130 on reader service card

**Store Front and Entrance Manual** provides technical information to promote good design, the use of quality materials, and careful workmanship. The 140-page manual has an introductory glossary of terms, followed by a design information section that covers design considerations of traffic, environmental conditions, access by the handicapped, safety, security, ease of operation, and construction and finishes. Glass and glazing data have been updated. There are also sections on hardware and engineering design, as well as a section that provides a complete guide to the preparation of store front and entrance specifications. The manual, in a sturdy 3-ring binder, is available for \$50 from the American Architectural Manufacturers Association, 2700 River Rd., Des Plaines, IL 60018.



**The Arena table** has a tubular steel base supporting a square, round, or racetrack-shaped top. The base is available in a variety of metal finishes. The series comes in dining/conference height. Jack Lenor Larsen.

Circle 131 on reader service card

**Lighting Catalog No. 29** features fixtures for pinpointing, highlighting, spotlighting, flood lighting, and special effects. The 88-page catalog includes dimming systems, sequence controllers, and accessories such as pattern templates, louvers, filters, and permanent or portable support structures. There also are confetti, bubble, snow, and fog machines. The catalog is \$5 from Times Square Lighting, 318 W 47 St., New York, NY 10036.

**The Barrister group** consists of executive, secretarial, and pull-up seating. Each is available with brass nailhead or welting cord detailing. Hardwood frames and five-prong bases are offered in two walnut and two mahogany-on-walnut finishes. Seals and backs are of Dacron over polyfoam on an elastic foundation. Upholstery is offered in any of the company's fabrics or leathers. Lehigh-Leopold.

Circle 132 on reader service card

(continued on page 137)



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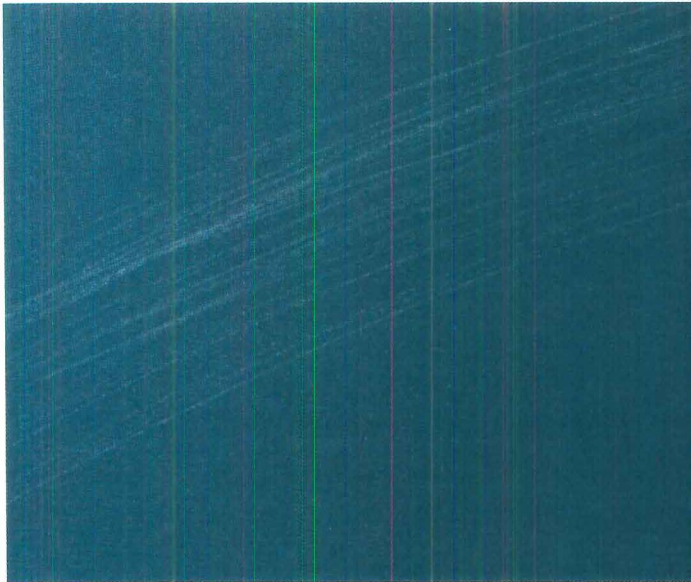
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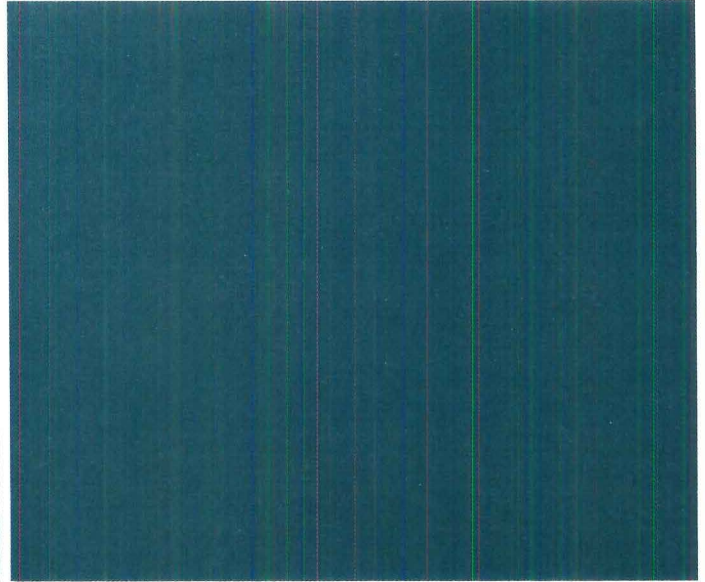
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**The Management Plus** collection of all-wood executive casegoods, designed by Thomas Lamb, consists of desks, credenzas, runoffs, overhead storage, bookcases, overhead cabinets, and lateral files. The group is available in standard in rift-cut mahogany with a variety of stains. Granite finish on the cases and drawer fronts is a texture over gloss that

gives the finish depth and accentuates the mahogany tops and drawer pulls. Nienkamper.

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**The Paragon chair** provides seating for churches and institutions. It has smooth, rounded corners and curved lines, is stackable, and withstands daily use. Upholstered seat and backrest panels are removable for easy cleaning. The chairs can be used individually or interlocked for multiple seating. Sauder Manufacturing Company.

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has net opening slides of 36 to 72 inches. Series 4000 and 7000 automatic swing doors have electric operators. Series 7000 also has a manual/automatic swing door operator for barrier-free openings. Horton Automatics.

Circle 207 on reader service card

## Building Materials

**Major materials suppliers for buildings that are featured this month as they were furnished to P/A by the architects.**

**Mississauga City Hall, Mississauga, Ontario (p. 69).** Architects: Jones & Kirkland, Toronto. Reinforced concrete/structural steel: Gilbert Steel. Brick/concrete block: Hanley, Primeau/Argo. Metal siding: Peerless. Precast concrete bands: E&M. Precast concrete: Hanley. Interior plaster stucco: Canadian Gypsum. Windows: Kawneer, Ford Glass, IBG. Doors: Kawneer, Canadoor, Kinear, Richards Wilcox. Exterior floor surface: Kraus Carpet. Interior floors: TMT, Forbo Krommenie. Ceiling: Canadian Gypsum. Roofing: Canadian Gypsum, Armstrong. Insulation: Tremco. Roof and deck drainage: EMCO. Exterior paint: Colour your World, Glidden. Interior paint: PPG. Hard-

ware: Schlage, LCN. Kitchen: Stainless Steel Products, Garland. Computer room: Camino Building Systems. Security/detection/fire: Chubb, Edwards of Canada Limited. Public seating: Trend Millwork. Signage: Artform Limited. Elevators: Northern. Moving stairways: Montgomery Escalators. Stairs: TMT. Handrails: Venture, Ste-Alco, Soheil Mosun. Exterior lighting: Inframor Canada Inc. Interior lighting: Peerless Electric, Revel Luminaries, PDM, Electrical Products Limited. Electric distribution: Federal Pioneer Limited, Atlas-Polar Company Limited. Heating: Unilnx, Trane. Air-conditioning: Baltimore Air Coil, Peerless. Environmental control: MCC Powers. Carpets: Kraus. Lamps: Prolight. Furniture: Sunar, Trend Millwork, Gillanders, Area Furniture, Artec. Blinds: Elite Blinds. Audio-visual: Multivision.

**BASCO Showroom, New York (p. 98).** Architect: Rosenblum/Harb Architects, New York. Textured paint: Plextone. Lighting: Prescolite; Litelab. Plastic laminate: Fantoni. Metal files: Artopex. Chairs: Metropolitan. Conference table: Atelier International. Reception bench: Miles/Carter.

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## P/A Technics: Exterior Lighting

An updating on the lighting of buildings and sites will cover such issues as adaptation to historical settings and provisions for security.

## October Issue

The October P/A will feature a profile of the venerable Charles Moore, highlighting recent work on two continents by three firms of which he is a principal.

## Mid-October Issue

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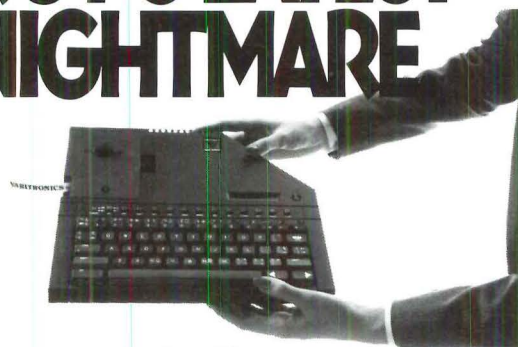
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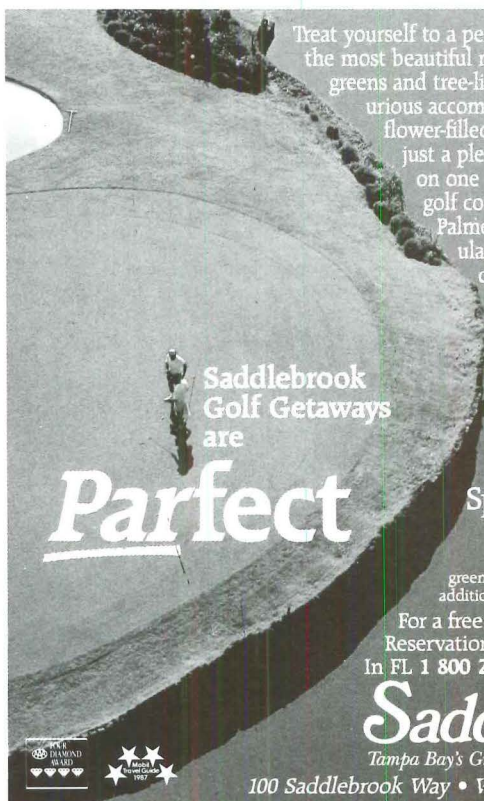
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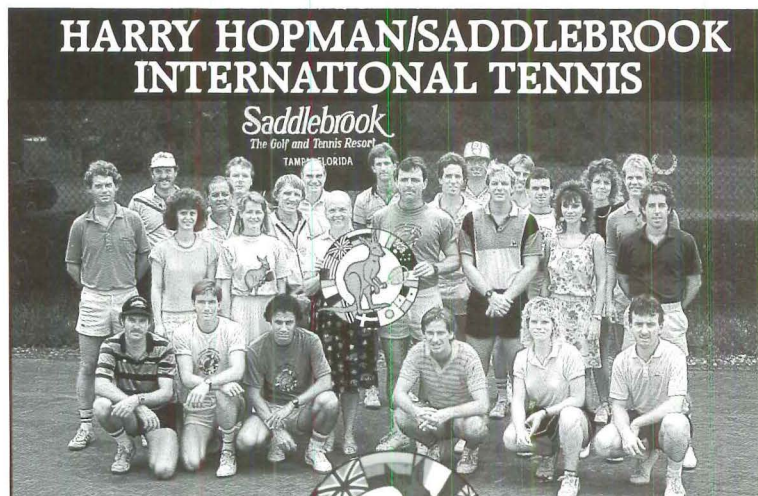
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