ARCHITECTURAL RECORD

Business Design Engineering
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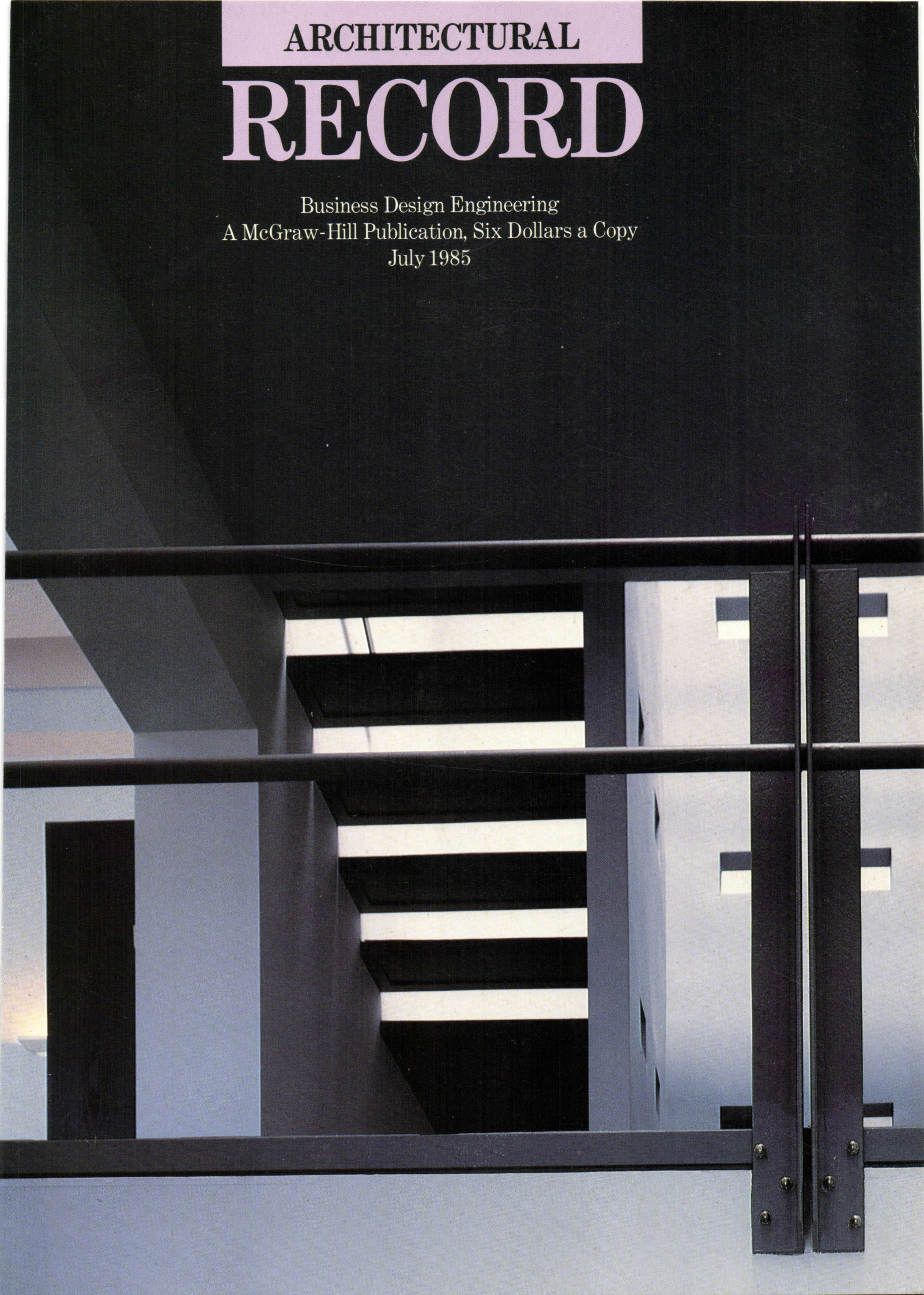
July 1985



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Metalinear* offers an alternative to standard linear metal ceilings. Instead of snapping beams into metal carriers, simply lay 2′ x 4′ tegular Metalinear panels into our 9/16″ Suprafine™ grid.

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For more information about our Metalinear ceiling, write Armstrong, Dept. 57SAR, Box 3001, Lancaster, PA 17604.

Armstrong

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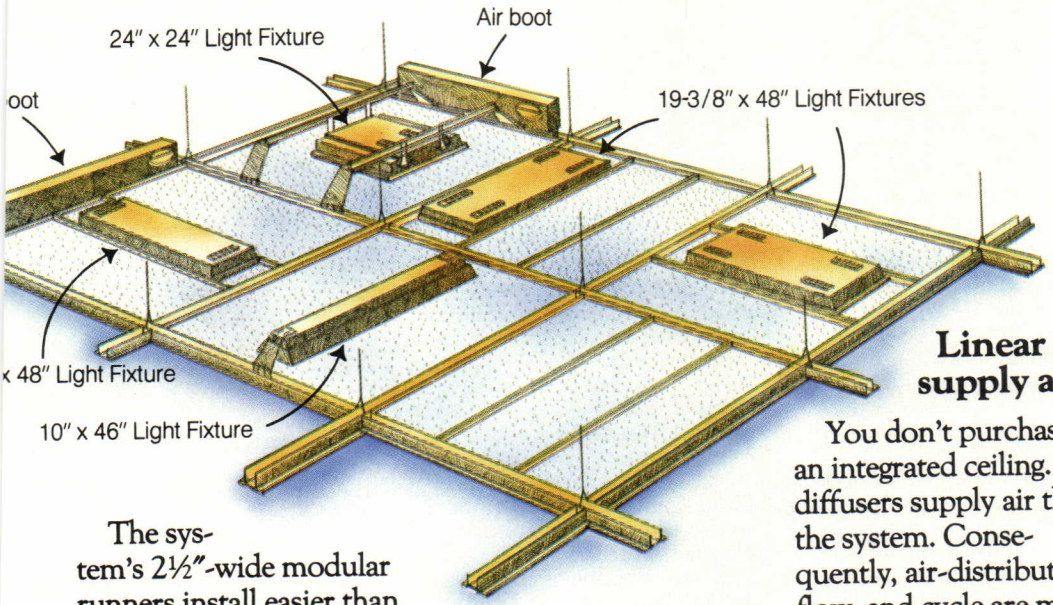
*Ceiling Patent Pending.



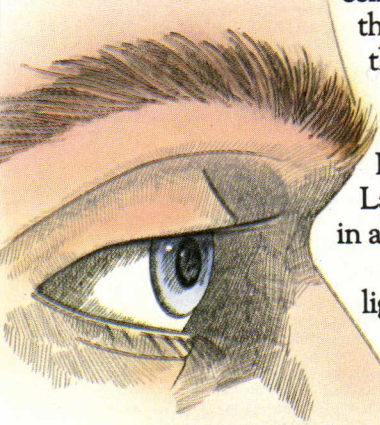
The system's 2½"-wide modular runners install easier than standard versions. They're also considerably stronger, supporting hardware without additional bracing. These pre-slotted runners accommodate air diffusers on all four sides of the module.

The center black regress conceals openings for diffusers and power cables.

Lighting systems reduce glare.

An integrated ceiling lighting system pleases the eye in two important ways.

First, it comfortably illuminates areas to enhance productivity. This is especially critical for spaces containing video display terminals. System fixtures properly light the horizontal paper-based task while controlling glare on the vertical terminal screen.



Second, integrated ceiling fixtures are aesthetically pleasing to the eye. They offer a variety of dramatic looks. Parabolic louvers. Flat prismatic lenses. Large- or small-cell louvers in aluminum or plastic.

All ensure high-quality lighting at economical prices. All save you time during the designing stage.

And during installation. Integrated fixtures rest on a support frame built into the grid. This assures quick interfacing and eliminates the problem of fixture flanges improperly designed for narrow grids.

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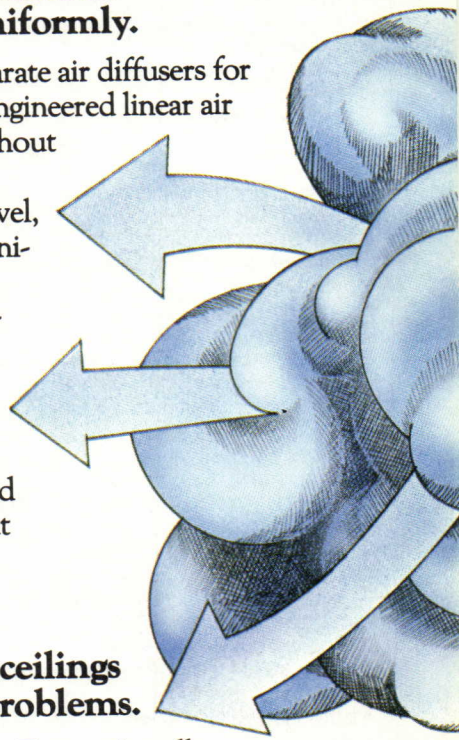
You don't purchase separate air diffusers for an integrated ceiling. Pre-engineered linear air diffusers supply air throughout the system. Consequently, air-distribution level, flow, and cycle are more uniform, more comfortable.

And less unsightly. Integrated diffusers are concealed, so there's no visual clutter. Plus, you can place them on any of the module's four sides and relocate them later without problems.



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Letters

Regarding the Prince House [RECORD, mid-April 1985, pages 110-115], I wonder if your editors would have been so enthusiastic about awarding the Record House honor to this structure had it been located next door to one of them on their own "quiet residential street"? I doubt it.
Tom Giannini, AIA
Houston

A refreshingly beautiful sight to see, the Prince house by Bart Prince. No drywall arches, no plastic laminate entablatures and no upside-down chromed Ionic columns, just real architecture for a change. This one project made leafing through a year of drivel worthwhile. Please, show us more real American architecture. I know it's out there. Seek it out!
G. Gregory Dovey, AIA
Chambersburg, Pennsylvania

It is seldom that my emotions are stirred enough to write a letter to a magazine. I must, however, make my comment on this year's Record House awards. A few of the houses I thought were good. Most, however, reminded me of stage-set design. Three I would single out.

1. Round Hill [Herbert S. Newman, architect]: This house is truly exuberant. I enjoy it, but what ever happened to architectural refinement? This thing looks like a stack of pieces piled up.

2. Prince House [Bart Prince, architect]: This one really sets me off. If it were an amusement park ride, I would applaud it. If it were built by an eccentric hermit from parts salvaged from a junkyard, I would find it amusing and let it pass without comment. *But* this is a work done by a registered architect and it is being recognized by the foremost professional magazine. I am offended. It is junkyard art!

3. Norton House [Frank O. Gehry, architect]: All of the comments above apply here, too.

Come on, ARCHITECTURAL RECORD, let's get back to some real architecture. Leave the junkyard art to the Sunday magazines!
C. Thomas Wagamuth
Architect
Lafayette, Indiana

While your article on the Monterey Bay Aquarium gives credit to the designer on one page [RECORD, February 1985, pages 114-123], the text on another page gives the impression that the role of Esherick Homsey Dodge and Davis was different from what it actually was. The facts are at some variance with your piece.

First, the very original idea of the aquarium as local rather than exotic, as a Monterey Bay Aquarium, must go to Julie Packard, Nancy Packard Burnet, Robin Burnet, Steve Webster and Chuck Baxter. We and our engineers, Rutherford & Chekene, were familiar with some of the local and technical problems from our work on the Long Coastal Marine Laboratory at the University of California Santa Cruz; Linda Rhodes had worked on the project. When the idea of the Monterey Bay Aquarium was developed by the Packards in the summer of 1978, we, with Rutherford & Chekene, decided to form a team and asked Linda Rhodes, who by then had her own office, to participate and act as a consultant on programming general architectural work and to assist in the complicated permit process. Our team, by then enlarged to include other consultants, was interviewed by the Packard Foundation Board in August 1978 and was selected to do concept studies.

In September we moved a team on site and began work—Charles Davis leading design, Linda Rhodes acting as programming manager and assisting in permit process.

In March 1979 the project was shut down because of delays in permits. In May Linda Rhodes informed us that David Packard had offered her the job as the Packard Foundation project manager. In January 1980 we started again; drawings and specifications were prepared in our office and our consultant's offices in San Francisco, with Charles Davis in charge. Linda Rhodes continued to work very effectively on permits and project management. As work proceeded, Linda Rhodes represented the owner on construction issues and was in charge of the Monterey Bay Aquarium in-house exhibition staff.

I do not wish to down-play Linda Rhodes's considerable contributions to the successful completion of the project, but I do feel it is proper to make it clear that Esherick Homsey Dodge and Davis, with Charles Davis as partner-in-charge, were the architects for the Monterey Bay Aquarium.
Joseph Esherick, AIA
Esherick Homsey Dodge and Davis
San Francisco

Correction
Architectural credit for the Philadelphia Museum of Art, mentioned in our article on One Logan Square (RECORD, February 1985, pages 142-149) should include Horace Trumbauer, with C. Clark Zantzinger and Charles Borie.

Calendar

MEA VBPA ABP

Through July 21
The Cabin, the Temple, the Trailer, an exhibition of American domestic vernacular architecture; at the Oakland Museum Art Special Gallery, 10th and Oak Sts., Oakland, Calif.

Through August 25
art + architecture + landscape, an exhibition of designs from the Clos Pegase Winery Competition sponsored by the San Francisco Museum of Modern Art; at the San Francisco Museum of Modern Art, 401 Van Ness Ave., San Francisco.

July 14 through September 8
Arquitectonica: Yesterday, Today, Tomorrow, an exhibit of models, photographs and drawings from the Miami architectural firm; at the Walker Art Center, Vineland Place, Minneapolis.

July 24-28
American Society of Interior Designers National Conference and International Exposition, "Design: The International Alliance"; at Dallas. For information: Edward Gips, ASID, 1430 Broadway, New York, N. Y. 10018 (212/944-9220).

August 20-24
WORLDESIGN 85/ICSID USA (International Council of Societies of Industrial Design), conference and exhibitions on the theme "Realities and Aspirations," sponsored by the Industrial Designers Society of America; at the Sheraton Washington Hotel, Washington, D. C. For information: The Design Foundation, Attn.: WORLDESIGN 85, 1630 Beverly Rd., Suite 303, McLean, Va. 22101-3671 (703/556-0919).

September 18-20
Second International Symposium on Roofing Technology, sponsored by the National Bureau of Standards, National Roofing Contractors Association and RILEM (International Union of Testing and Research Laboratories for Materials and Structures); at U. S. Bureau of Standards, Gaithersburg, Md. For information: National Roofing Contractors Association, 8600 Bryn Mawr Ave., Chicago, Ill. 60631-0700 (312/693-0700).

September 26-28
Energy Planning for Communities, an international conference sponsored by the American Institute of Architects and the U. S. Department of Energy, in cooperation with a number of professional organizations and agencies; in St. Paul, Minn. For information: Energy Programs, AIA, 1735 New York Ave., N. W., Washington, D. C. 20006 (202/626-7448).

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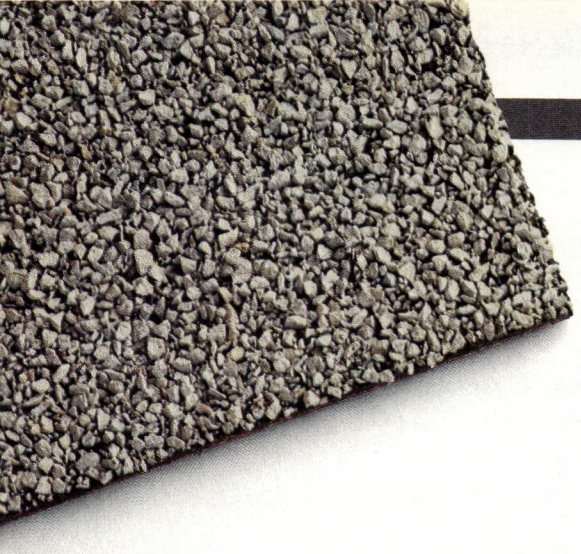

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- ☐ Building Equipment Vibration
- ☐ Broad Roof Surface Temperature Profile
- ☒ Extreme Heat
- ☐ Snow Loading/Removal
- ☐ New Construction
- ☒ Re-Roof: Tear-Off Yes ___ No X
- ☒ High Winds
- ☒ Roof Traffic
- ☒ Humidity: Exterior
- ☐ Humidity: Interior
- ☒ Heavy U.V. Loadi

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VISUAL:

MAY '82

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The Honor Awards as grand finale—and other Convention impressions

The 1985 National Convention of the American Institute of Architects was an event that was likeable if not lively, earnest but not energetic, conversational but not controversial. The theme discussions—ranging broadly over the client's interests in "ValueArchitecture," the architect's interests, and the public's interests—offered some serious food for thought but no subject that really stirred up the convention (for details, see Business News, page 37). The speakers were almost all people who have something to say, and (mostly and happily) people with top design credits. But even setting up Hugh Newell Jacobsen against Chuck Thomsen of 3D/I (who might not have been expected to agree about much except how to spell architect) and Stanley Tigerman against researcher Michael Brill (who might not have been expected to agree about anything), didn't stir up much controversy. The choice of Tom Wolfe as the opening speaker of the convention on Sunday afternoon was obviously intended as a controversial and conversational pot-stirrer. He did attract a large audience, but the attendees did not seem to agree on what he said, and few seemed very miffed at Tom Wolfe being invited to the year's major convention of architects (which is a little bit like bringing your own swarm of ants to a family picnic).

A big plus at the San Francisco convention was the 50 or so professional development seminars on a broad range of topics—project management, financial management, fee negotiation, selling the Federal market, time management, developing your own projects, conducting presentations, conflict resolution in the construction process, et cetera, et cetera, including, of course, a number of programs on computer use, still and again a hot topic at any meeting of architects. Encouragingly, there were a number of seminars directed at associates and interns. Most entertaining seminar: a report by two young architects in the office of Kaplan/McLaughlin/Diaz on "The Architecture Office as an Educational Resource"—a listing of the varied activities that take place before (Chinese breakfast) and after work that clearly enliven and maintain excitement in the office—from reports on the firm's pioneering research and post-occupancy evaluations, to design seminars on various building types, to "fun and games" ranging from presentations by other architects of their work to debates and round tables on style and regionalism, to movies, to art exhibits, to concerts (held around the firm's centrally located grand piano), to intramural sports, to kite-making and sand-castle building.

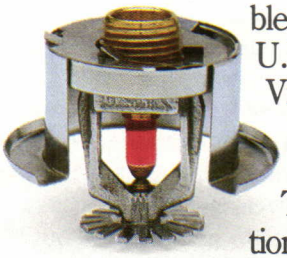
A couple of times on this page I've grumped about the all-important Honor Awards being awarded in some random slot on the Convention program—one year on the Sunday afternoon of the Convention before anyone but the winners (who promptly went home) got there. No complaints this time. The 1985 Institute Honors, Awards, and Gold Medal were presented on the last evening (Wednesday), were well staged, were treated by the audience with the respect and warmth and admiration they deserve. Everyone came—a *very* large ballroom at the hotel was packed—and the stately ceremony therefore served as a one-more-time reminder that what architecture is really about is good design. It was a grand finale.

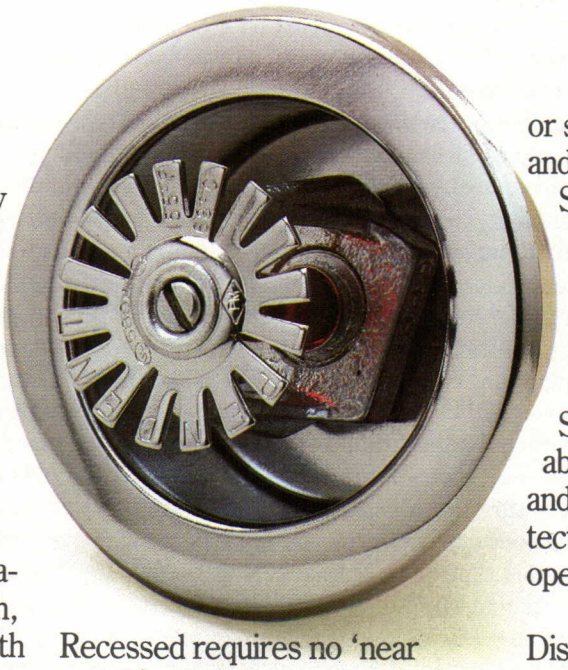
One concern—not criticism, but concern. The convention was so tightly scheduled and controlled that there didn't seem to be time (or if there was I missed it) to talk about the three subjects that were on everyone's mind. Item 1: I would have liked to learn more about what everyone seems to feel is a crisis in professional liability insurance—its costs and coverage. There was a resolution calling for study of the problem (see, again, News)—but I think I would have found or made time to discuss the problem in front of the assembled delegates at the business sessions. Item 2: Another resolution called for a "study of architectural education." I would have liked to hear what the "deep concerns" of practitioners and students alike *really* are, and specifically what anyone thinks can really be done about whatever shortcomings are considered really important. Finally, item 3: I'd have liked very much to hear more about the Model Code of Ethics and Professional Responsibility discussed briefly at the final business session. Now it may be that much public discussion of such a sensitive issue is premature—but it is a subject that requires a lot of serious talk in every component across the country before the San Antonio convention. In my view, the re-establishment of a meaningful Code of Ethics is so important that I can hardly "wait 'til next year." *W. W.*

UGLY ISN'T THE ONLY ALTERNATIVE TO EXPENSIVE, CONCEALED SPRINKLERS.

Fire protection sprinklers have not traditionally been designed for appearance, so many architects and designers prefer to use 'concealed' sprinklers in spite of their inherent drawbacks and high cost. Viking now offers an option to concealed sprinklers that is both attractive and extremely cost effective.

The new Viking Recessed Sprinkler features a fully adjustable escutcheon, U.L. listed with Viking's new Micromatic™ sprinkler. This combination provides an attractive, subtle look at a cost far below concealed or other recessed sprinklers. The Viking





Recessed requires no 'near match' painted cover which disguises the fact that an area is properly protected. And, there is no need for an air gap, which collects dust and leaves a dirty ring around concealed sprinklers.

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Campaign launched to keep tax credits for historic properties

In order to counter tax reform pressures that would eliminate, among many other special-interest incentives passed over the years, tax credits included in the Economic Recovery Act of 1981 for the rehabilitation of certified historic properties, the National Trust for Historic Preservation has launched a campaign to keep the credits. A statement by the board of directors enumerates the public-interest benefits that the credits have produced:

- More than $5.4 billion invested in more than 7,500 projects receiving the credits, not to mention the side effects of restoration by example seen in buildings not receiving the credits.
- The creation of more than 18,500 new rental units.
- Jobs in construction and related fields for some 180,500 people.
- More than $5.3 billion in retail sales and other business activity not included in the direct worth of rehabilitation projects listed above.
- Some $4 billion in wages.
- The revitalization of declining urban areas through a realization of the physical resources these older communities hold.
- Economic development within the context of appreciation of history and our heritage.
- The economic efficiency in this means of stimulating private investment.

"Without these incentives," according to National Trust president J. Jackson Walter, "the economics of the marketplace dictate the demolition of many historic buildings in order to realize the highest return on investment. In this sense, repeal is not a neutral act. It is an act that discriminates against older buildings and ignores the public benefits to be derived therefrom."

Need to reduce coal emissions?

The United States Department of Energy has announced the results of tests in which up to 80 per cent of carbon dioxide in coal-fired furnaces was absorbed by injections of hydrated lime directly into the fire. The results meet acceptable emission levels established by the New Source Performance Standards. Contact DOE, Office of Fossil Energy, Morgantown, W. Va. 26505.

Engineers win preliminary round with the Corps

Discussion between the Corps of Engineers and the American Consulting Engineers Council has produced agreement in principle that engineer consultants hired by the Corps should be selected by professional engineers. For more information contact the council at 1015 Fifteenth Street, N. W., Washington, D. C. 20005 (202/347-7474).

SMPS convention scheduled

With the theme of "A Marketing Challenge," the 1985 convention of the Society of Marketing Professional Services is scheduled for New Orleans from September 18 through 20. The conference organizers have adopted as their concern the challenge of change—how new markets, technologies, financing, and personal goals will create new ways that firms do business. As in previous years, the convention will be organized around a series of panels and workshops, this year focused on change as well as other specific aspects of marketing professional design services.

Workshop topics include survival as a manager, winning interviews, improving leadership skills, the "dollars and sense" of promotion, a case study of a firm's transformation through marketing, managing the conflicts in change, presentation strategies, computers in marketing, firm positioning, marketing for the small firm, and "marketing yourself." Panels include changing and emerging markets, the new sources of money, and the corporate/developer client. Moderators and panelists include executives of Haines Lundberg Waehler, Humana Inc., Kajima International, TRW, the First Boston Corporation and AT&T.

Also scheduled are a Mardi Gras ball, a moonlight cruise with Dixieland music, and a house tour. For more information, contact the SMPS at 801 North Fairfax Street, Alexandria, Va. 22314 (703/549-6117).

Survey on architect selection revealed

In order to find out how architects and other design consultants are selected by corporations for new projects, the corporate architects committee of the New York Chapter of the AIA conducted a survey of some 50 corporations in the metropolitan area at the beginning of the year. The chapter notes that the survey is by no means conclusive in terms of analyzing results by project size, type, and industry peculiarities, and that the responses indicated very strong personal preferences so that the results must be taken in that light. Nonetheless, the results do bear witness to what may be expected by design professionals delving into corporate waters:

- The entity in a corporation most usually responsible for selection is not one person, but some combination of corporate executives and a senior design professional.
- The selection procedures vary with each project. Only 21 per cent of respondents said that the same procedure was employed across the board.
- The results on eligibility criteria were inconclusive, with 38 per cent of respondents saying that there were no preselection criteria and 14 per cent saying that eligibility is limited to repeat firms.
- The most important qualification was said to be geographic location by 55 per cent of the respondents, while 22 per cent of respondents listed size of firm as the most important consideration. The ability to be "on top" of projects was the third-place runner.
- The kind of practice most often selected was listed to be one employing outside engineering services by 70 per cent of respondents, while only 10 per cent said they wanted a firm with in-house engineers.
- The parties doing interior design were equally split between consultants responsible to the architect, those responsible to the owner, in-house departments in architectural offices, and in-house departments in the client's operation.
- The presentation material of designers that influenced selection the most was listed as either written media (such as letters), formal interviews, informal interviews or negotiation technique by an equal number of respondents.
- The favored location for an interview was said to be in the client's office, while a slightly smaller group favored some combination of the client's office, the design office, and the site.
- The design personnel that the client most wants to meet at an interview were listed as the principal, the manager, the designer, and the engineer.

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AIA Theme Programs explore ValueArchitecture from the architect's, the client's, and the public's viewpoint

Theme explorations, theme discussions and public lectures—ten sessions in all—examined "ValueArchitecture" from different points of view. And despite some jibes at the term (Is it an admonition? A wistful plea? Akin to value engineering? Or does it simply mean architecture of value?), it engendered some provocative discussion.

Author Tom Wolfe saw today's architecture (and other arts as well) as influenced by fashion in ideas and manners. "This idea is resisted, I find," said the author of *From Bauhaus to Our House.* "People in the arts do not want to be told that they are subject to the same rules and mechanisms of fashion that the clothing industry is subject to, but in fact that is true." Carrying the metaphor a step further, Wolfe described the profession as being in "the era of the Big Closet," ransacking the past for decorative trimming. "A camp game is going on," he said. "The work of today's architects says, 'I'm not a revivalist; I'm making witty gestures.' "

Wolfe sees no fundamental change in this posture until young architects acquire classical drawing skills "so that they are able to generate new decoration for our time, a decoration that means something to us and means something to people." For in Wolfe's view, "architects' next frontier is going to be somehow embracing the public.... They have to find something in American life if they want to make this step. It has to come from the heart; it cannot be a game. It cannot be done by a survey.... It can't be sold like Creamy Whip or some product. It has to be something in one's heart that resonates with the life of this country in the American century."

The client's interests: Education and delight—and a little more attention

Representatives from that part of the public that pays for architects' services gave the profession a mixed review. Max DePree, chairman, president and CEO of Herman Miller, Inc., saw the architect as a mentor: "We think there's a big problem for us in developing more of a design literacy, more business literacy, more literacy in terms of the meaning of relationships within the corporate effort," he said. "So if there's one thing we look for, it's who's going to teach us the most."

And Andrew Lewis, chairman and CEO of Best Products Company, appreciated the architect's fresh vision: "One of the most wonderful things about working with good architects is that you don't have any idea what you ought to expect. I think you ought to try to lay yourself open to the idea that some enormously beneficial surprise could come out of this relationship."

On the other hand, Lucy Crow Billingsley, president of the Dallas Market Center Company, complained that architects often come to her with standard presentations. "A new ad agency, on the other hand, does much greater analysis of our needs and how we want to position ourselves."

And Allan Temko, architecture critic of the *San Francisco Chronicle,* pulled no punches: "The main question that hasn't come up is the incompetence of architects, especially in evolving technology. Most of them can't handle the existing technology, and technology is flooding in all the time."

"Do you think on the whole that the client gets the architecture he deserves?" asked moderator Linda Ellerbee, of NBC News. "I think you get what you deserve, but I don't know that that's what you want," answered developer Billingsley.

The architect's interest: Architecture of value versus the bottom line

A debate on idealism versus pragmatism, on total architect control versus client collaboration, ensued between Hugh Newell Jacobsen, who heads a small firm in Washington, D. C. and Charles B. Thomsen, president of the giant 3D/International of Houston. Jacobsen got off the opening shot: "I'm very concerned about our profession on its way down the escalator into the bargain basement out of the temple where it belongs.... You and I have no business losing arguments about architecture to anybody other than another architect. Yet we are losing arguments to lawyers, and bankers, and financial people who form our clients.... Why are we doing this?"

Thomsen pointed out that the number of architects has increased while nonresidential work is drying up. "As a result, we find ourselves terribly competitive with each other, doing some things perhaps we shouldn't do.... But instead of how do we sell more, how do we negotiate higher fees, the issue is how do we provide a better service and a better result to our clients?"

And his answer: "I think that careful listening to the people who are hiring us, who want us to listen to them, is the essential issue in this question about how do we deliver value.... Some people build buildings to make money with them, and as a profession we begin to feel a little bit bad about that, as if that's not a noble purpose for a building. Yet, if we're going to do value architecture for our clients, or architecture that our clients value, we have to provide them with projects that are good money-making machines."

"The client takes that as a given when he hires us," said Jacobsen. "But we like to think that he hires us for our understanding of the manipulation and making of spaces and the quality of life we reach for and not how much money he can get as he falls off his wallet and breaks a leg. It's the greed button that it's so hard to come to terms with."

Said Thomsen: "It would seem to me that we're going to have a process of natural selection there, and the developers and architects who are doing good projects are going to survive and do more good projects and the ones that are in bad projects are not going to survive."

But Jacobsen disagreed: "When we start thinking of great developers well there's... (pause) and then there's... (pause), and maybe we can find five or six who have put up serious buildings. But the prince of the developers that we have now has managed to hire the best architects in our country and to get some of the most mediocre work out of those great men. I wish we'd get back to arch-i-tec-ture. We know more about that than the developer, and he really basically is not interested in it; he's interested in making money. If his own ego were involved, if he put his name on the building... Every time a name gets on a building it gets better."

What the architect invests: Ideas—but are they accessible to the public?

Boston architect Jean Paul Carlhian illustrated the architect's investment of knowledge, skill, and insight in the design process with a discussion of the Smithsonian Institution's new underground museum for its Asian and African collections (RECORD, February 1984), and Chicago architect Stanley Tigerman discussed how remodeling a show room for Knoll International had led to quality urban design for a block in Houston (RECORD, April 1984). In the discussion that followed, the panel came back again and again to whether architects' ideas about architecture were accessible to the public. Architect David Weingarten of Oakland was the first to raise the question: "The architects' investment of ideas imparts value to architecture. It is an empty enterprise if those ideas and that value are held remote from people's powers to comprehend them. Yet this is almost always the case. The richness of architects' ideas is diluted by the abstract way these ideas are rendered into the shape of a building.... A good architect takes interesting and humane and contextual ideas and renders them into architecture that is comprehensible to people."

It wasn't that simple for architect John Johansen of New York City, who spoke of three imperatives: technology, nature, and the psychosocial aspects of society. He saw technology as the extension of man and, quoting the philosopher Teilhard de Chardin, as the extension of humanism. Said Johansen: "We see man and building as a continuum. We see him referred to by some as a new biotech species in which man, the occupant of the building, becomes so closely conceived, and the intelligence of the building is developed to such an extent, that the man and building become one. The building changes then, responsive, to human pressures. To the physical body of the building, now, we add the brain. This is new architecture. This is the here-and-now which we must school ourselves in and begin to work into our buildings.

"We're moving from a world conceived as machine, where activities are determined as parts, to a world of the organism, whose structure is determined by its process," Johansen continued. "We may expect a new organic architecture following, as Chardin says, natural law." Johansen also saw a new architecture of network—networks of structure, communication, circulation. And he concluded: "We have not yet found the images and symbols of our age regardless of whom you look at and select as your new heroes."

Said Jean Paul Carlhian: "There's a place for your thoughts, and I certainly wouldn't prevent you from exploring the new. But to do something new for the sake of doing something new frightens me, as opposed to doing something new in the endeavor to make it better. That should be our goal."

And Stanley Tigerman stressed the importance of communication: "I can't disagree more with what I think John is alluding to as a kind of architecture responding to those networks that remove the value of the human being as I see it. As for dispensing with those ornamental programs and languages that were the common language of this discipline for some other meganotion without the particularity of a human—a vulnerable—input, I suspect I really disagree with John dramatically."

Architect Raymond Kappe, director of the Southern California Institute of Architects in Santa Monica, supported Johansen's view: "I feel that some of the things he projects are really closer to people. In other words, if the process has become one in which the person or persons who are part of the space and part of the place are responded

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to through other processes of technology, then you're really getting closer to the person."

This made Boston architect Joan Goody uncomfortable: "What concerns me about what you and John are saying is that it's an abstract language, and it's hard for me to think how that translates into buildings the average user can respond do. Technology is, of course, a tool, but to consider it a goal, a symbol, the expression of which we have no control over—that's a problem. . . . Architecture is essential art, and we get into trouble when we get too abstract."

To which Kappe added: "The communication that goes on among architects seems to prevail over the communication that takes place in a societal way. Are we talking to ourselves? I think we do a great deal of that. We design for each other. We understand the icons. . . . The classicism of Mies is now substituted by the classicism of Aldo Rossi. I don't see where we're communicating better to the people through this."

The public's interests: Again, the topic was involvement and communication

This time the debate was between Stanley Tigerman and Michael Brill, an architect who now heads the Buffalo Organization for Social & Technological Innovation, which conducts user research.

Almost as though he were picking up the conversation of the previous day, Brill began: "I'm watching architecture grow less literate, less accessible, almost totally incomprehensible to the folks who live in it and work in it. I think that we're watching an architecture emerge almost for architects only. We're seeing personal odysseys. You can look at a building and say, oh, that's a Michael Graves building. Or that's a Robert A. M. Stern building. That's crazy. A building is about those people and that place and those purposes, it's not autobiography. We're getting a narrower and narrower band of literacy precisely at the point when architects are searching for meaning. What they mean is *their* meaning, not the meaning for the folks who are using those places."

"The difference between Michael and me," said Tigerman, "is I don't watch. I actually do. And by doing, one makes oneself vulnerable. You possess a great power of invulnerability because you're sort of the ultimate architectural voyeur."

Brill: "The folks who are really vulnerable are the people we do stuff to with our buildings. They have so incredibly little say in the matter. . . If you want to pit the kind of vulnerable yet heroic architect making difficult decisions against the people who live and work and play in the places that we make, I wouldn't trade off your heroism for their need."

Here moderator William Sharfman, a New York consultant, interjected a question: "How applicable and how accessible is the kind of research that Mr. Brill refers to to what is, I think, essentially an intuitive process?"

"Michael's work is very, very important," answered Tigerman, "and the stuff has been made accessible and we use it and it's terrific. But in the end I'm really interested in the specific client and the specific condition that establishes a case." And he summed up his thoughts on design: "There is a central optimistic attitude about the nature of what we do which is seminal to what we do. So we quickly race, often mistakenly, to design, to sort of load things up, to make it utterly wonderful, to bring that kind of joy, one hopes, into the lives of those people who did not come just to have the problems solved and resolved. . . . Ultimately it is the optimism that is the central feature of this discipline."

Brill's rejoinder: "I think what feeds the optimism of many architects is never going back and finding out whether they did anything wrong. So that one continually faces a world with no mistakes. With no problems."

What the public gains: More on public involvement—and on what constitutes the public

This session offered presentations by John Burgee, Charles Moore, and Charles Davis, president of Esherick Homsey Dodge & Davis of San Francisco, followed by a panel moderated by syndicated columnist Neal Peirce composed of the presenters plus Kathryn Anthony, who teaches design-behavior interaction at the University of Illinois, Steven Izenour of Venturi, Rauch and Scott Brown, and Wolf Von Eckardt, design critic for *Time*.

Said Charles Moore: "What the public gains is usefully seen as being very closely related to what the public gives, or what the public is given a chance to give. . . . What the architect does is not pump images into people or give them things, but rather sets things up so that people can find the strength and the pleasure of inhabiting places that are there to inhabit."

Davis, who has participated on AIA R/UDAT teams, working with a relatively unsophisticated public, noted: "The public is highly attuned to value in our urban context, and in other reaches of our vast land—the plains, deserts, suburbs and small towns—people perceive value in real terms for them. It happens that these values are different from those of our more sophisticated decipherers and coders, namely us. . . . It's humbling to discover that your ears are closed and that you have solved the problem before you understand it. I think the public understands what is valuable to it. We must take the time to listen,

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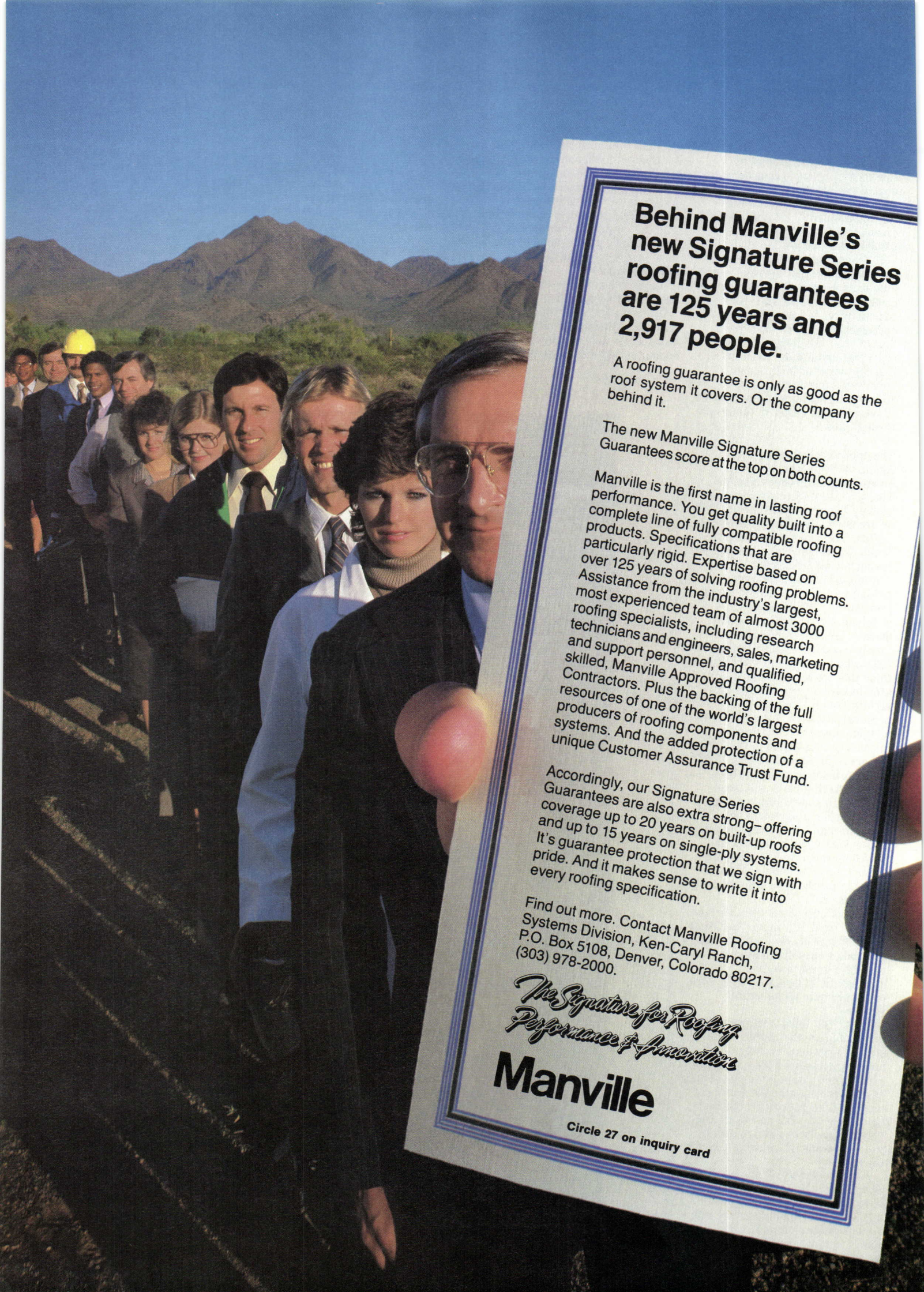

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keep our ears and minds truly open, have a touch of humility, if you will, and realize that we are not giants in this world, but merely players along with many others who form the public."

"The criteria that architects, critics, and the public use to evaluate design projects are often quite different," Kathryn Anthony observed. "Both architects and design critics tend to judge design work primarily on its esthetic value. The public, however, bases its assessment primarily on how well the building works for them, whether they use it regularly or simply pass by it every day on their way to work. Ideal or value architecture, as I view it, satisfies professional peers as well as the public, not one at the expense of the other. For example, an office lobby which is of architecturally award-winning quality but which lacks a place for office workers to sit down and wait to be picked up for a ride is inadequate. . . ."

"Everybody's being real positive today about the public as though somehow if we all just get on together the world's going to be a better place to live," said Steven Izenour. "Having done that for 10 or 15 years, I'm left feeling a little depressed because I have to admit that all that effort doesn't guarantee much of anything. . . . In the end I come down to having to face who is the public. Who is the real representative? Is it the fine arts commission? A group of politicians? What is the operative definition of the role of these people? How are we supposed to perceive it and function with it on a day-to-day basis?. . . The history of this kind of surrogate-public that acts 'in the best interest' of the larger public is a disastrous one. When we're talking about quality, the public and its representatives have a definite right and responsibility to define *what*, and absolutely no responsibility to define *how*. And that is the classic problem. We've seen some projects that have obviously gone through the wringer of the *how*. And until such time as the public and its representatives can assume a position of feeling responsible for the *what*, in the end they must understand that they've got to trust an architect. To trust somebody. They cannot do it. They cannot put those lines on paper. And they can't in the end guarantee the ultimate quality that comes out. That's an implicit trust based purely on whom you choose to work with.

"Having gone through all this, I'll wind up saying I find it positive that we're talking about all these issues, but a bit depressing if we go away believing that having thought good thoughts about these public issues, it's somehow going to guarantee something. I'm afraid it's not and it probably never did."

Wolf Von Eckardt: "I'm all for genius, but I am even more for responsibility. And by responsibility I mean the ability to respond to real needs. . . . Architecture is not an abstract act, or shouldn't be. Architecture is the culmination of a process that makes life livable in modern civilization. And it doesn't have just one client; it has a number of clients. One is the owner, of course, the one who pays for it. Two is the neighborhood and the responsibility to the surroundings of that building. Three is the city as a whole. And four, which is so very often forgotten in our time, is the future. Where is it all going to lead to?. . . The public has to participate in that in different ways, which gets very, very complicated. And the question of who is the public and who represents the public is a very legitimate one. But we're all agreed that democracy is very difficult."

"I agree that the public is saying that whether we like it or not they are going to have a role in what we do," said Charles Davis. "They're going to define it in many diffuse and different ways. It's wrong, I think, to say that the issue is *what* and not *how*, because I think the public is going to have some input on the *how*. And I think they have a right to. I agree with Wolf about democracy. And I have found that if we set up the confrontation or the conflict believing that we are the purveyors or the interpreters of what architecture is, and if we encapsulate ourselves in that kind of power, we are setting ourselves up for a struggle."

John Burgee told an anecdote about having a project bounced back and forth between the Fine Arts Commission and the Pennsylvania Avenue Commission in Washington D. C. at a time when one was headed by Nathaniel Owings and the other by Gordon Bunshaft: "And they were doing it in the name of the so-called public," he said, adding: "Some discussion with the public is fine. But layer upon layer of public agencies—you've got to be a masochist to go through all those agencies that can't agree with each other. . . . I think it's a cop-out on our role. We have to get involved with the public and find out what the public needs—there's no question about that. Now how to go about that and who represents the public is a question that I can't answer."

And Charles Moore had a solution: "I fight against the notion that all this regulation seems to be by people instead of by law. I would find it much more useful, easier, more sympathetic, better if somebody would write down what they expected. The more the rules can be clear and the chance to operate within them can be shared, the better off we are. The more unclear your rules, then the public practices get pushed around in ways that seem not to work."

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Practice: Getting design contracts abroad requires savvy and persistence

The author argues that difficulties can be overcome and that the potential outweighs them

By Edward Thurman

According to a recent study conducted by Price, Waterhouse & Co. and commissioned by the International Engineering and Construction Industries Council, the U. S. construction industry generated export revenues in 1983 totaling $19.6 billion (RECORD, Business news, June, page 35). While the market for our architectural, engineering, and design services abroad has increased steadily over the last decade or so, the actual export of such U. S. services has seen cyclical swings, most recently between 1982 and 1983 when revenues from all construction-related activities abroad dropped by some $800 million. Mr. Thurman offers some reasons for this, including some firms' reluctance to work under contracts that do not bear the backing of the U. S. judicial system.

Of course too, there are other reasons, such as increasing competition from foreign firms with growing competence, and changing tax rules that many feel have, at times, penalized U. S. firms unfairly. Richard Roth, Jr., the president of Emery Roth & Sons and a delegate to the International Engineering and Construction Industries Council, says that U. S. architects are basically non-competitive both because of the current strong dollar and because other countries give financial backing to professionals involved in construction—subsidizing, for instance, design competitions. He acknowledges that the overseas support problem is not as significant for architects as it is for contractors and engineers, who stand much more to gain or lose in this area. However, in terms of selling American goods, "the architect's role is important because he normally would work to American standards and would specify American-made equipment."

Some time ago, the AIA joined the IECIC to see what could be done to ease the onus of, at least, U. S. tax and regulatory disincentives. The alliance asserted that U. S. design firms working abroad were often in a position to generate business for contractors, and equipment and material suppliers at home. Mr. Thurman states that our design firms abroad are indeed a help for our current balance of payments problems in a significant way. And he points out that there is a lot of untapped potential out there for the design firms themselves, even as he gives insights into how to go after it. C. K. H.

Like a well-prepared curry, successful foreign contracts result from many ingredients coming together in the proper blend. *Most* of the ingredients are the same as for a successful domestic contract: experience; the right people in the lead; realistic time schedules; and a fee commensurate with the task to be performed. But on a foreign contract, a firm can boast all these qualifications and still fail.

Unfortunately, too many American architects, engineers, and interior designers sense this potential for failure and allow their fears to quash any aspirations they may have for entering foreign markets for their services.

For example, the president of an East Coast design firm with a strong track record in medical facilities said that, although he has had many opportunities to expand abroad, he is reluctant to make a foreign commitment unless the project is for the U. S. government, or is at least administered by it. This attitude will indeed protect his firm from the possibilities of loss, but at great price.

One familiar and well-established market illustrates an ongoing potential

To cite possibly the most glaring example of a thirst for Western goods and services, consider Saudi Arabia. In the past 30 years, the per capita income has risen from among the lowest in the world to the highest.

During the past decade or so, this country, roughly equal in size to India or to the United States east of the Mississippi, purchased everything from pre-engineered buildings to AWAC planes. And entire cities were built—much of them designed by U. S. firms which built largely with American materials. Only in the last few years of slowing oil revenues has the appetite that once seemed insatiable shown signs of abating.

Still, until fossil fuel is replaced by renewable energy sources, or until the wells run dry (and it is estimated that Saudi Arabia is sitting on 300 billion barrels of oil), Saudi Arabia will ride high in the saddle among Third World nations. And fortunately this country has consistently turned to the West, principally to the U. S., for its goods and services. Currently there are 60,000 Americans working in Saudi Arabia.

One export firm in Washington, D. C., American Export Group International Services, Inc., is an example of the "full-services" supplier from which this particular market likes to purchase. The company ships all types of equipment to client countries, sets it up, and makes it operational. Doing $125 million in business in a recent year, the company notes that $30 million of that amount was for one contract—75,000 individual pieces of furniture for the King Saud University, in Saudi Arabia.

The King Feisal Specialist Hospital in Riyadh is one of the most advanced and best equipped medical facilities in the world. It is built on three levels, each the length of three football fields. The original concept was for a 20- or 30-bed hospital for royalty on palace grounds, but—to show the rapid rate of change that can happen to plans when cost is a secondary consideration—final plans were for 250 beds. When the size was expanded, it was thrown open to the general public. Many patients had never seen a hospital before.

Recently, a Cancer Center Institute has been added to the complex. The combined facility has a staff of approximately 3,000, and the Hospital Corporation of America, based in Nashville, provides all technical staff. Here is an illustration of the magnitude of projects constructed by many financing methods during the past decade in many once poor, Third World countries. But it is clear Saudi Arabia takes the lead.

Overseas projects not only benefit design firms, but they bolster the American economy in the process. It has been estimated that every $1 billion of foreign construction designed by an American firm generates many thousands of full-time jobs in the U. S. every year (again see News, June, page 35).

But what about the problems of enforcing contracts off U. S. soil?

Despite the opportunities, skeptics argue that in the United States the judicial system stands behind the proper execution of a contract, and that they are not willing to relinquish that protection. While it is true that not all firms with an extensive record of overseas work have a perfect record of receiving full fee for services rendered, it is also true that on occasion purely domestic firms also get the short end of the stick.

To help protect the American businessman in the world market, the Export-Import Bank of the United States offers insurance through the Foreign Credit Insurance Association, an association of some 10 of the

continued

Mr. Thurman is an architect with 30 years of professional experience in the United States, the Middle East, the Far East, and Africa. Currently, he is the director of business development for the MMM Design Group in Washington, D. C.

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The point to remember is that there *are* ways of protecting a firm's interests abroad. In addition to insurance, a firm should identify the pitfalls before stumbling into them. The best way to avoid these hazards is to start by assigning responsibility for overseas business development to one person or staff whose sole responsibility is, besides the acquisition of work, to study the intricacies of the foreign market.

How, specifically, do you go after foreign work?

In any marketing, a director of business development devotes full attention to investigating promising leads, courting potential clients, and maintaining a dialogue with past clients, since the preponderance of new contracts in typical offices comes from repeat clients, or as a result of a favorable reference by a past client. In the case of acquiring work abroad this, along with good U. S. government contacts, becomes doubly important. The key is the study of the intricacies of the foreign market in general and preferably of a specific target country in particular.

Linguistic abilities are not essential in the procurement of foreign contracts, but if the director of business development lacks these skills, it is extremely helpful if someone on his staff is fluent in the language of the country in question. Not only does this reap the benefits of firsthand conversation, but clients are always more at ease speaking with someone in their own language.

For a firm with no overseas business contacts, a good place for the business developer to begin looking for leads on foreign construction projects is the U. S. Department of Commerce. There was a day when Commerce passed out little more than background information on foreign countries and long-range construction forecasts provided by those countries. All that has changed. More than ever, Commerce is now committed to foreign business. And backing up this commitment is a computer database—continually being refined and expanded—which makes it possible to obtain surprisingly quick and sharp answers to business development questions.

In addition to its main offices in Washington, D. C., the Department of Commerce has branch offices in 62 cities in 43 states and in Puerto Rico. A firm seeking business opportunities abroad can contact the trade specialist in the nearest Commerce Department office, who is usually capable of providing meaningful guidance.

Also, Foreign Service officers in American embassies are now more apt to be businessmen expert in foreign trade than they were a few years ago. As a rule, they can supply information on business opportunities, and if asked, most will even arrange appointments so that time spent in a foreign country is used to best advantage.

Two sources could prove most useful among those provided by the government

There are two prime offices in the Department of Commerce that offer services to professional design firms seeking assistance with projects abroad: one is the International Economic Policy (IEP) cluster, which provides information based on geographic location; the other is the Office of Major Projects (OMP), with information oriented towards the industry sector. Both offices suggest that design firms should contact the nearest Department of Commerce district office and get involved in the activities of the District Export Council in their respective areas.

The three prime missions of IEP are: to provide in-depth analysis of economic and commercial affairs for foreign countries, institute and carry out U. S. economic policy, and maintain liaison with embassy officials to keep abreast of business opportunities abroad. It "can assist in determining the sales potential of your product or service, identify potential agents and sales opportunities, provide information on import regulations, and provide guidance for solving particular problems."

The organization can also provide publications outlining contract procedures in foreign countries, but advises private legal counsel regarding general business practices for major transactions. And it can provide appropriate background information on any country where there is an American embassy or consulate, which includes most.

The past director of OMP, James R. Phillips, worked abroad for a number of years, most recently in England, and is anything but the stereotyped bureaucrat. He has extensive experience in the field as an administrator for a large international firm and, at OMP, involved himself in the daily decisions of an office that today routinely receives information from some 170 American embassies and consulates.

As he wrote in a position paper, "The objectives of OMP are threefold:

- To identify foreign capital projects with major export potential which should be brought to the attention of U. S. industry or are likely to require special U. S. Government assistance for successful participation by American firms;
- To inform U. S. firms of large-scale projects with significant potential for the export of U. S. goods and services; and
- To assist U. S. firms on a case-by-case basis in competing for such projects and coordinating support from other areas of the International Trade Administration of the Department of Commerce and other Federal agencies, as necessary."

This organization accomplishes its goals largely by relying on the expertise of its project managers who are selected from the industrial sector. These people usually become the primary government contacts for projects in their respective fields. Among many other services, the project managers provide names of foreign contacts, details on projects in specific locations, and information on all major categories of projects planned worldwide, such as hospitals, airports, or housing.

The office publishes several newsletters that may be of interest to a firm seeking foreign business contracts. One is a free monthly publication listing major prospective foreign construction projects around the world as reported to OMP by overseas embassies. Commerce also distributes several other useful publications. Among them is a pamphlet that includes information on approximately 3,200 foreign construction and design firms in 101 countries. At a price of $40, it lists company name, address, telex, contact, size, length of time in operation, and the type of construction in which each firm specializes.

Construction design firms can also receive information on foreign business opportunities by registering with the World Bank and the Inter-American Development Bank, both in Washington, D. C.; the Asian Development Bank in Manila; and the African Development Bank in Abidjan, Ivory Coast.

For background information on a particular country, the Department of State (202/655-4000) may also be contacted. Ask for the desk officer for that country. He can answer many questions and, at no charge, will provide a profile of the country including: population statistics; geography; government, including political conditions, and principal government officials; economy; and a reading list. For a charge of $2.00, the State Department will provide background information on any of those 170 foreign countries where the U. S. maintains diplomatic posts. Or the full set of 170 can be had for $32.00.

To find foreign clients, you will, most probably, want to go to them

There are very few instances of firms securing large contracts in foreign countries without spending time in the country in which they hope to do business. Phone calls and correspondence are not sufficient in themselves to find and land a significant contract.

Just as here, investors there will naturally turn to the design firm that has shown enough interest in the investor to know his preferences, sources and rough limits of financing, and scope of likely projects. Nothing can take the place of person-to-person contact on the person's own soil, with frequent follow-up trips.

Also, it should be noted that if an inquiry by an American firm does not bring a response in a reasonable length of time, a second and possibly a third contact should be attempted. Particularly when working abroad, persistence most often pays off.

Once in the foreign country, one of the first contacts should be with the commercial attaché at the American embassy. Many commercial attachés are well informed on business matters in the country and can often assist in scheduling meetings and advising on matters of interest.

Important as all this information is to the blend of ingredients that creates a successful foreign venture, an understanding of the people and the culture of the country where a firm wishes to do business is essential.

In selling services to Muslims, for example, it is best to know something about how Islam affects the business cycle. The business community in some Muslim

continued

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"Americans' offensive behavior may result from a sense of superiority or, more likely, it is the unfortunate result of ignorance"

countries all but grinds to a halt for the month of Ramadan, and it is virtually impossible to schedule appointments with government administrators—or anyone else—during these important religious holidays. Ramadan occurs during the ninth month of the Mohammedan calendar each year and, thus, its occurrence comes at different times on our calendar. A business development trip to a Muslim country at the beginning of Ramadan would probably be a waste of time.

Similarly, a trip to many Middle East countries during the summer months would be somewhat of a waste, since most of the important people in that part of the world spend the summer months in Europe. The best time for a visit to North Africa and the Near East—as well as the Middle East—is between October and May.

The pace of life in most other countries is considerably slower and more relaxed than it is in the U. S. The American concept of time being money, both of which are conserved by going straight to the point, is alien, if not offensive to Middle Eastern, as well as Oriental cultures.

There, the amenities of social intercourse, such as polite, light conversation, and often tea drinking, are observed as a prelude to business discussions. Not to participate is considered rude and could well spell the end of the proposed business venture before talks even get started.

It is advisable to stay in the best hotels, or at least to have frequent meals there. Americans in a foreign hotel tend to band together and the sharing of common experiences germane to overseas travel, as well as the very fact of being Americans abroad, tends to unite them and to create a certain bond often resulting in a frank exchange of information which may well prove valuable. Thus, important connections may be forged—for the future, if not for the present.

Of course, too much time spent socializing with Americans, rather than with the natives, can rob you of valuable time that could be spent doing what you went there for—pursuing local business. In this, as in all things, common sense and moderation should be the guiding principles.

Many countries require native sponsors, and here is what you should know about them

Once a specific country or job has been targeted, one of the next steps should be to determine if the host nation requires foreign business firms to be represented by a native sponsor. Many countries do. Sponsors need not be professionals, and many speak only their native language, although you can seek out those who speak yours. Often, the need for a sponsor causes a mad scramble as local entrepreneurs of the country vie for as many five-star foreign consultants as possible.

And in the Middle East, it is not at all unusual to find a cousin of the ruler or some other well-placed person representing a string of *Fortune 500* companies and an American construction design firm as well. As might be expected, the more companies represented, the more important the sponsor becomes, and this in turn brings him more companies to represent. In some countries, the phone book's yellow pages carry dozens of pages listing names of local sponsor companies, their owners, and all the agencies and firms they represent.

Except in rare instances, it is advisable to select a sponsor with no more than one or two other clients; large contracts generally result from arduous efforts over an extended period of time, and a sponsor with a dozen clients lacks the proper time to service them all properly.

Before jumping into a contractual arrangement with such a person, however, it is advisable to double-check his credentials. The American embassy in the selected country should be able to help, and with luck, a U. S. firm can be located to provide an evaluation of a prospect. In addition to confirming the sponsor's integrity, the American firm might also be able to evaluate his clout.

A word of caution: the sponsor should be chosen with the greatest of care because it is virtually impossible to change sponsors. The sponsor first chosen will spread the word among his colleagues that the firm that has left him is untrustworthy. If he was chosen because of his clout, he will use that clout to protect his turf and his reputation.

Some sponsors have been educated in foreign universities, speak several languages, and are extremely knowledgeable of our business practices. Others, who might be equally successful in domestic business matters, may be lacking in formal education and have no understanding of the conduct of international business.

When the first contract has been landed, there are things you must do to get more

Let us now assume the legwork for a foreign project has been done. The brochures have been read, the demographics studied, a sponsor lined up, and the long-pursued foreign contract has been landed. The next step is to educate the personnel to be sent to the foreign post, and their families, as to the history, culture, religion and at least to some degree, the language. Cultural subtleties and mores vary from country to country, and it is essential for the representatives of a firm who would do business in a given country to familiarize themselves with them if they expect to forge productive and lasting relationships. If it is the custom for the people of the country to remove their shoes before entering a place of worship, or a home, they naturally resent foreigners who ignore this simple ritual. If it is considered offensive for soles of shoes to be exposed, or for feet to be pointed in the direction of one's audience, then the foreigner must be aware of this custom and observe it. If the women of the country are rarely seen in public, and then covered with robes and veils, as dictated by their religion, they are naturally angered by Western women parading about in skimpy attire.

These examples may seem obvious; yet, many Americans abroad often seem intent on forcing their own customs, dress, and manners on their hosts—the people who own the country, the people who signed the contract.

Sometimes new contracts are not forthcoming simply because personnel on the last project were not aware of, or failed to take seriously, the sensitivities of their hosts. Offensive behavior may result from a sense of superiority or, more likely, it is the unfortunate result of ignorance.

In either case, if a stern warning from the project manager does not make an employee shape up, he should be shipped out. In addition to getting rid of a poor representative of the United States and of the firm, the expulsion will let the client know that consideration of him and his country is paramount to you and your firm.

It is true that, despite the best efforts, all may not go smoothly

Of course, no amount of preparation or education will fully prepare an American firm and its employees for all the nuances and subtleties of a given culture. There will always be some surprises.

For example, I learned the hard way that Saudi Arabian businessmen are often reluctant to disagree openly with their Western counterparts, agreeing in principle to a transaction they have no interest in rather than risking animosity by saying "no." This curious practice is disconcerting, of course, when the Westerner finally realizes that his time has been wasted chasing a false start.

A few years ago, I represented an American design firm in the Arab Emirates where we had an influential sponsor and were looking for a project significant enough to warrant opening a field office. After weeks of meeting with government officials, we got our chance: a competition to plan a municipal park. Although it was not a large project, it was prestigious, having the direct backing of the ruler and, if we won and the ruler liked our work, our fortunes in that country would be virtually assured.

I cabled my home office with the promising news and a landscape architect was dispatched. Together we walked the site, shooting several rolls of film and writing copious notes on the sandy soil condition, undulating topography, and the state of an existing structure. When our design was complete, a vice president of the firm joined us for the presentation, and our hopes were heightened when we saw the delight of the jury as we unveiled our model, an elaborate affair built in Athens and flown in a specially built carrying case.

A few days later, we received an official notice that, of the 16 rival designs, ours was the winner—but there was a catch. For the notice went on to inform us that there was a second phase to the competition: to land the commission we would have to bid against the other 15 firms for the best cost estimate on building our design.

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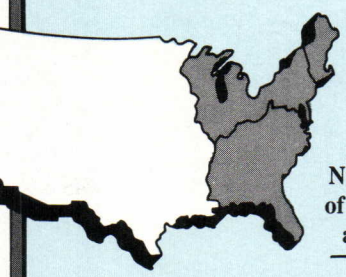
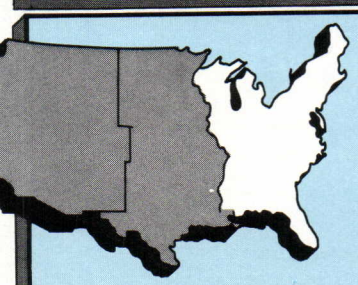
Costs: Once again, steady on

Summary of Building Construction Costs



Districts Eastern U. S.

	Number of metro areas	1/85 to 4/85	4/84 to 4/85	1977* to 4/85
Metro NY-NJ	18	0.88	4.90	1684.74
New England States	33	1.05	3.92	1629.44
Northeastern and North Central States	120	0.65	2.54	1633.05
Southeastern States	106	0.49	2.22	1684.59
Average Eastern U. S.	277	0.65	2.74	1655.70



Western U. S.

Mississippi River and West Central States	122	0.55	1.96	1640.94
Pacific Coast and Rocky Mountain States	106	0.50	1.52	1726.56
Average Western U. S.	228	0.53	1.76	1680.74
United States Average	505	0.59	2.29	1667.01

* Using only cities with base year of 1977

Continuing what is rapidly becoming a felicitous tradition, this month's report on first-quarter construction costs reveals no major upward trend, with only the metropolitan New York-New Jersey area showing a gain of over one per cent. As can be seen on the cost indexes below, the only other metropolitan areas showing noticeable increases were Baltimore, Boston, Detroit, Los Angeles, New Orleans, Philadelphia, and Seattle. Cities showing a relative decline were Atlanta, Birmingham, Cleveland and San Francisco—all but Cleveland repeating a similar performance in the first, second, and fourth quarters of 1984.

Material costs in the first quarter of 1985 moved very little, with only plywood, reinforcing steel, and electrical conduit rising more than two per cent. Plywood was a price-rise leader for the second quarter in a row due to the current revival in housing construction.

Labor, predicted in the last report in RECORD (mid-April 1985, page 37) to be a potentially explosive ingredient in the placid scene, has failed to influence over-all costs as of this report. But with key agreements scheduled for this spring and summer, labor needs to be watched. It could produce quite a different over-all cost result by the next quarter report, due in October.

What, of course, has made the level cost situation most remarkable is the strong rate of construction, which generally tends to create upward pressure. As the first quarter came to a close, a March rate of construction edged 1985's first quarter total ahead by one per cent over the comparable 1984 period. All types of construction—residential, nonresidential, public works—reflected gains over the prior period. All four major regions of the nation participated in 1985's strong first quarter rate of total construction contracting. After adjustment for the season, regional gains from last year's fourth quarter activity were: Northeast, up nine per cent; North Central, up three per cent; South, up four per cent; West, up three per cent.

Cost Information Systems
McGraw-Hill Information Systems Company

Historical Building Costs Indexes

Average of all Nonresidential Building Types, 21 Cities

1977 average for each city = 1000.0

Metropolitan area	1977	1978	1979	1980	1981	1982	1983	1984 1st	1984 2nd	1984 3rd	1984 4th	1985 1st	1985 2nd	1985 3rd
Atlanta	1171.5	1712.6	1925.6	2098.6	2078.0	2360.6	2456.7	2506.6	2473.0	2483.8	2448.7	2446.2		
Baltimore	1018.4	1107.7	1304.5	1446.5	1544.9	1639.5	1689.7	1673.3	1668.5	1688.5	1703.7	1737.1		
Birmingham	1029.7	1142.4	1329.9	1407.2	1469.9	1468.1	1535.7	1570.6	1567.0	1599.0	1594.7	1592.8		
Boston	1028.4	0998.6	1236.0	1283.7	1432.5	1502.0	1569.9	1607.1	1606.1	1625.8	1646.0	1671.6		
Chicago	1007.7	1032.8	1199.7	1323.6	1344.7	1425.8	1439.5	1459.7	1465.7	1464.6	1476.7	1476.8		
Cincinnati	0848.9	0991.0	1323.9	1385.2	1350.4	1362.6	1430.8	1444.9	1474.9	1478.6	1484.5	1487.7		
Cleveland	1034.4	1040.8	1287.5	1388.2	1459.5	1511.4	1475.9	1451.9	1461.5	1463.1	1464.0	1461.6		
Dallas	1042.4	1130.6	1431.9	1481.9	1750.6	1834.3	1925.9	1962.8	1957.8	1976.0	1958.0	1961.5		
Denver	1038.8	1100.4	1495.6	1487.4	1632.2	1679.1	1800.1	1819.5	1819.5	1820.2	1824.3	1828.7		
Detroit	1018.1	1087.3	1275.3	1447.4	1580.3	1638.0	1672.1	1665.1	1661.6	1687.8	1697.9	1711.9		
Kansas City	1023.5	0951.5	1125.8	1233.2	1323.4	1381.8	1407.5	1418.8	1435.6	1444.2	1447.1	1455.7		
Los Angeles	1022.5	1111.0	1255.3	1387.5	1474.3	1503.3	1523.9	1548.7	1529.8	1546.0	1555.1	1571.0		
Miami	1004.5	1080.9	1330.1	1380.6	1369.1	1392.1	1467.6	1491.1	1505.6	1523.7	1522.2	1529.8		
Minneapolis	1060.2	1196.8	1286.9	1327.7	1442.6	1576.8	1624.6	1635.0	1634.8	1627.7	1640.4	1639.9		
New Orleans	1001.3	1138.8	1291.9	1505.7	1572.7	1616.9	1650.5	1682.4	1689.0	1689.0	1691.4	1739.5		
New York	1005.4	1043.0	1247.1	1319.4	1419.2	1491.8	1672.5	1677.3	1666.6	1700.2	1747.2	1765.1		
Philadelphia	1013.8	1074.2	1487.5	1539.5	1660.7	1769.4	1819.5	1860.5	1893.0	1903.9	1922.1	1965.4		
Pittsburgh	1016.1	1015.0	1227.0	1341.7	1493.2	1479.5	1497.2	1506.7	1565.1	1571.4	1576.1	1580.2		
St. Louis	1039.1	1198.8	1275.9	1320.0	1397.3	1451.2	1524.9	1552.5	1575.7	1603.9	1625.5	1628.2		
San Francisco	1083.2	1326.8	1473.4	1644.8	1776.4	1810.1	1856.8	1855.7	1921.3	1942.8	1935.3	1929.5		
Seattle	1142.5	1137.9	1373.4	1616.8	1814.9	1962.7	1979.0	1934.2	1939.0	1962.3	1948.9	1973.1		

Costs in a given city for a certain period may be compared with costs in another period by dividing one index into the other; if the index for a city for one period (200.) divided by the index for a second period (150.0) equals 133%, the costs in the one period are 33% higher than the costs in the other. Also, second period costs are 75% of those in the first period (150.0 divided by 200.0 = 75%) or they are 25% lower in the second period.

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Marketing: Has it benefited architecture?

The author suggests that marketing not only be used to generate more buildings but better ones

By Martin McElroy

Over the past twelve to twenty years (depending on who is counting), marketing has become a fixed element in the organization of many professional firms—especially the big ones. Even those firms without a full-time staff working on business development have at least one senior member of the firm who includes a marketing hat in his wardrobe. This "man on the outside" is now expected to be conversant with markets, the ways of searching for leads, proposals, interviews, and all aspects of promotion, whether or not he goes to Rotary or Kiwanis. Now that there is some history behind the effort, perhaps we might question if the rewards have justified the commitment.

What marketing promises for the profession includes some obvious benefits:

- The ability for a firm to control its growth and to determine the kinds of work that will find its way to the boards;
- A leveling out of commissions across good times and bad; and finally...
- An enhanced ability of the principals to communicate with prospects about what they can do, as well as the relevance of a firm's services.

On these predictable benefits, the experiences of firms are, on the whole, positive. Adopting the procedures and techniques common to marketing programs does not instantly confer prescience, the inventiveness to open new doors or insulation from macro-economic monkey wrenches. Still, many firms' marketing efforts are led by individuals with the personal qualities and professional acumen to develop strategies and exert initiatives that benefit their organizations. This has produced results, but sometimes results with limitations.

There are untapped "goods" that marketing can be challenged to deliver

Examples of this would include:

- Informed and perceptive clients who are predisposed to meaningful collaboration with their design firm;
- Contracts for such additional services as facilities management on a project already secured;
- Increased demand for quality architecture.

In aggregate, these opportunities invite us to ask whether marketing has expanded the market for architectural services in general, and quality architecture in particular. Or, as some suggest, has the profession learned to pursue the same clients, at greater expense, for lower fees to beget dubious results?

Well, there is a bundle of dramatic architecture these days, some of it superb, in large and small projects of every category. Some of this demand is stimulated by a general public design consciousness—thanks to Halston, Honda and Hyatt. Some of it is stimulated by the effect of noticeable, if not noteworthy, design on supercharged real estate economics. By whatever origins, quality architecture is recognized as a measurable asset by many owners.

Design opportunities are always available on the condition that they pass through the eye of the computer spreadsheet's needle. The head of a major bank's real estate department recently regretted the absence of design approaches from his consultants that were above all cost-conscious and cost-effective. Even though some owners now perceive good design as a necessity, the majority are not convinced that the long-term economics of a quality environment offset initial costs. (We, as architects, haven't been trying to ignore these costs, have we?)

This suggests that the missionary work to expand demand for better buildings has not really occurred. We need to acquire and then articulate a better understanding of the value of the design in balance with other owner objectives. At this level, market research is not just finding where the action is, but where it can or ought to be, and developing client awareness of this potential.

This kind of marketing is not done on our turf, but rather on the client's home ground. John A. Seiler's article in the July-August 1984 *Harvard Business Review*, "Architecture at Work," linked environmental planning to employee performance. That is marketing.

It could seem that the crunch of competing for projects leaves no time for higher longer-term goals

There is no doubt that professional design firms' fervor and capacity to compete for work has sent a message to clients that they are in a buyers' market. There seems to be no hoop that their candidates won't jump through, including design competitions with penurious stipends.

Is this the educated client, taste-testing his way to fine design? He needn't even require bidding; cost proposals invite enough competition to screw down the candidates' fees.

After being selected for a project, the architect finds there is little opportunity to expand a client's horizon. Although client attitudes can be shaped during projects, thin fees and tight schedules leave no room for developing optional approaches. Who created this double bind?

We cannot blame clients for their selection procedures. In fact, we taught them in the first place. One imagines Pavlov's dogs marveling at those guys in white coats who produce another morsel every time a bell is rung. Who trained whom? Have we indeed failed to teach clients enough? By and large, selection procedures conform to the profession's notion of "fair." Would it not have been better to teach our clients to strive for excellence for themselves rather than fairness for us?

Several years ago, the AIA offered a basic client education effort called: "You and Your Architect." For the uninitiated, it summarized the architect's basic functions and services. It did not develop the client's role in the proceedings. It did not prescribe a selection procedure that could not only discriminate for excellence, but create a climate for its cultivation during the design process.

Marketing that stimulates demand and shapes client attitudes is only now on the horizon

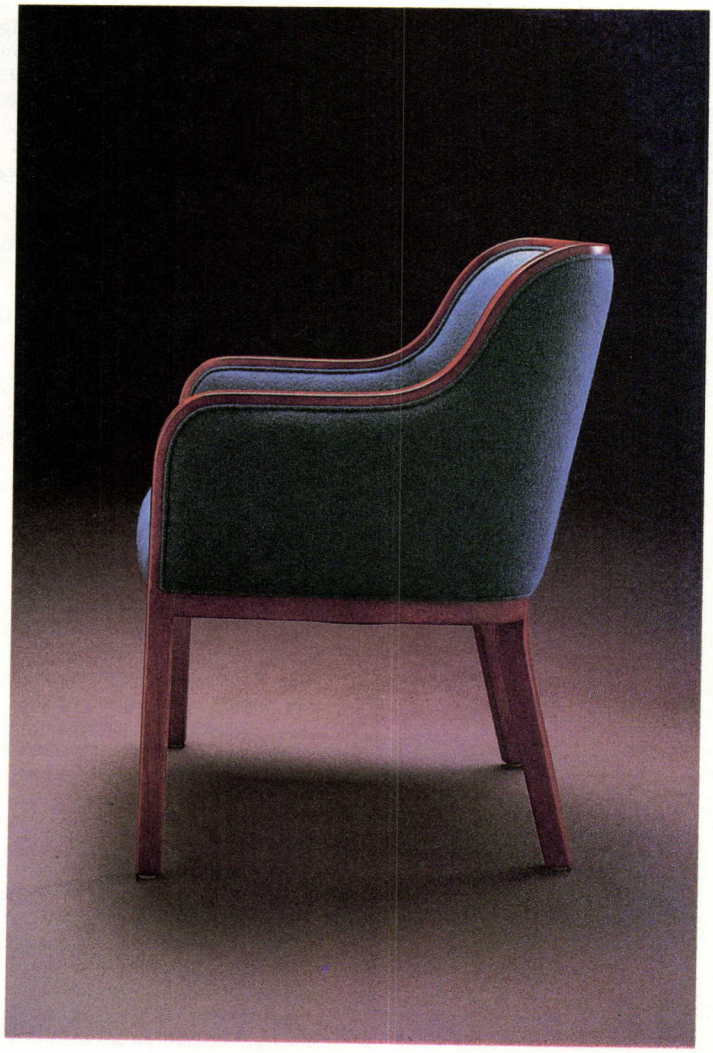
The marketing era has been misnamed. Its focus has been sales or business development. To accelerate real marketing's advent:

- We should promulgate a selection process that administers the litmus tests for qualifications and chemistry, but goes further in promoting substantive discussions and project planning between a client and a professional he selects prior to contract negotiations. Practitioners should promote these methods with clients and prospects.
- The standard agreement, AIA-B141 should be overhauled to devote more than one column in the 12-page document to the essence of this profession's services.
- Project managers should be trained as client managers so that they can lead the process, not simply monitor it.

Finally, we should reward excellence in our clients. For all the awards we give our buildings, we must reinforce clients' management approaches that allow a practicing architect to exert his talent and resources in the interest of his client and project. We need new and better ways to make our clients smart; that *is* marketing and we must begin now to apply it.

Mr. McElroy is the head of management consultants Sixty-Eight/52 Associates in New York. He is trained in architecture and communications psychology, has headed the marketing departments for several large design firms, and consults with corporate clients on facilities development.

300 Series Seating



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Architectural education: Our obligation to teach the law

Professor Goldblatt firmly believes—and teaches—that the law should be a mandatory element of an architect's professional education. In this article, he spells out the "whys" and "hows" of his developing efforts at the University of Washington

By Steven M. Goldblatt

Steven M. Goldblatt is chairman and associate professor of Building Construction and adjunct associate professor of Architecture in the College of Architecture and Urban Planning at the University of Washington. A member of the California Bar, he began his teaching career at Purdue University. Professor Goldblatt is a panel member of the American Arbitration Association and serves as editor of the Associated Schools of Construction national newsletter.

My experience as an attorney, consultant, and arbitrator convinces me that graduates of professional architecture programs receive wholly inadequate exposure to the law. On-the-job training often comes too late in the form of defending against a lawsuit. Clients and the public stand increasingly ready to exercise their rights; architects should be prepared.

Atlanta attorney Kelley Carey expressed an opinion I wholeheartedly share in "Assessing Liability of Architects and Engineers for Construction Supervision" (*Insurance Law Journal*, March 1979): "The architect is largely untrained as to the legal consequences of his construction roles. He should receive this training so that needless confusion and litigation can be avoided. The concern here is that the design professional, like the accountant and the lawyer and other professionals, should be required to take training in legal and ethical responsibilities.

"Technical colleges should provide mandatory courses in the basics of contract and tort law as applied to the design professional. The architect has an incredibly large role in contract formation and enforcement for which he is ill-prepared. It should be clear that the attempt by the design professions to use standard forms to cure this problem is only a partial or sometimes even dangerous remedy. A contract should represent a knowing allocation of rights and obligations. That a large number of suits against the architect are for negligence shows both that the assignments are imperfectly understood and that assumptions of duty beyond the contract are occurring."

At ACSA's annual meeting in March, Arizona State architecture and urban design professor Richard Lai presented a paper entitled "Designing the Invisible Web." He argued that the "web" of law and regulation exerts a tremendous influence over urban design and architecture and that architecture students should study the law.

In this RECORD series on architectural education, Robert Fox, recent past president of ASC/AIA, observed (April 1984), "Students are not always clear on the external forces that influence the design process, and often see compromises as disrespectful to architecture, a selling of one's soul. Too often a person graduates today from academic life and he or she is totally unprepared for what is to be encountered in the real world of architecture. Rarely is this put into perspective for the student, who is left struggling to relearn later how the profession operates."

Undoubtedly the vast majority of graduates walk *legally unarmed* into the working world.

Accreditation criteria require awareness of the law

In the introduction to its December 1984 criteria and procedures, the National Architectural Accrediting Board states that "NAAB-accredited programs guarantee that graduates . . . comprehend architects' roles and responsibilities in society. . . . Architects must also become aware of issues of liability." To accredit a program, NAAB looks for evidence from the institution that "*all* students who receive a first professional degree in architecture have satisfied *all* the achievement-oriented performance criteria."

Criteria, grouped into four major areas—1) history, human behavior, and environmental context; 2) design; 3) technical systems and requirements; and 4) practice—are stated in terms of abilities, understanding, and awareness. Practice is defined as "that set of activities in the institutions of society essential to the conduct of the profession of architecture." Practice is composed of four sub-areas, including laws and regulations. Graduates "should be educated . . . to a level adequate to provide a base for further learning, i.e., through continuing education and/or experience."

Specifically, graduates should "*understand* the legal relevance of public health, safety and welfare, property rights, building codes, zoning and subdivision and a host of other factors impinging on architectural practice; *be aware of* areas of the law which affect architecture, and with landmark cases which form the background of current practice; *be aware of* the relevance of the law to professional registration, professional service contracts, the formation of design organizations and teams, the obligations of the architect to the client and other parties, designer liability for faulty design, cost overruns, construction administration, third-party rights, analysis of construction contracts and contractors' liability and arbitration; and *be aware of* the mechanisms and procedures for enforcement, adjudication and the creation or modification of laws."

I wonder how architecture programs around the country comply with NAAB's law and regulation criteria well enough to merit accreditation. I do not know many architects or architecture faculties capable of teaching the law beyond building codes or standard forms, for instance. Do all programs call on local attorneys, specialists in the field, to teach their professional students?

The legal climate is getting hotter

At an ABA conference held last year in cooperation with the AIA, among others, Boston attorney John Miller presented a paper entitled "Architect/Engineer Liability: A Growth Period." Pointing to a "fourfold increase in the number of claims filed against A/Es between 1960 and 1981," Miller suggested that in the next decade A/Es should beware of such matters as construction observation, indemnity claims, closing disputes during construction, and increased disclosure to owners.

At the ABA Forum Committee on the Construction Industry's annual meeting held in April, considerable attention was paid to AIA Document A201, *General Conditions of the Contract for Construction.* Panelists identified and discussed several significant proposals on topics such as comparative fault, contractual limitation of actions, and differing site clause changes. Another panel discussed proposed revisions to various standard forms for construction management and design/build methods of project delivery, as well as their liability for design and performance problems.

RECORD's education series has been an eye-opener for me, and some of the commentary has been provocative and relevant to this discussion of the law.

William Wiese (May 1984) described 14 areas in which an IDP intern "must obtain a minimum (yet meaningful) exposure." Included are construction documents, document checking and coordination, bidding and contract negotiation, and construction phase (observation). Why must a student wait for an internship to learn the implications of these activities?

Theory is fine for undergraduates, but. . .

The Round Table (June 1984), not surprisingly, "divided into two groups: those who felt that the schools should prepare students to practice and those who preferred a more theoretical education." I fail to see what the theorists are preparing their graduates for, if not professional practice.

James Wines (November 1984) lamented "the fact that, of the handful of architectural schools dedicated to artistic excellence, the more practical aspects of management and construction are placed in low esteem, and students are often encouraged toward an anti-professional mindset. They assume that all practical applications are the equivalent of subjugation, thus claiming it is better to stand aloof from the banalities of the marketplace and

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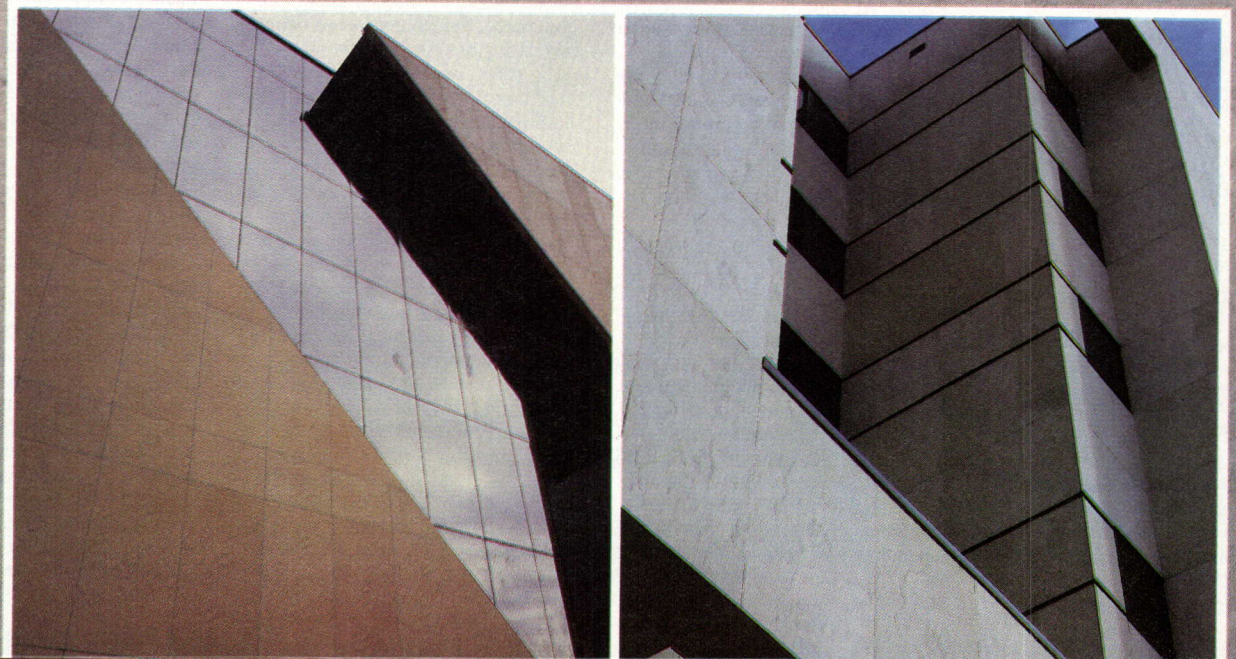


practice architecture exclusively as a condition of elevated theory. Influences and sources outside of architectural practice are discouraged either by denunciation as irrelevant or damning with faint praise."

The law does not recognize the *art* of architecture, just as it does not recognize the *art* of medicine. When one practices one's profession on the public, the law establishes the framework for that practice.

Learning outside the studio is appropriate and necessary

Steven Hurtt (January 1985) reluctantly realized that "fields of adjacent knowledge necessary to the doing of architecture have grown up. So the architect must know something about them. And because these fields do not teach architecture per se, architects are lectured about a subject that is not architecture, and often not even from that architectural point of view. But most endure, and even show some mastery of these adjacent fields." He found "absolutely nothing that I can see that establishes the superiority of the system we now use—which is not dominated by studio, but by lecture courses."

It is almost impossible to teach the law in the studio, but legal considerations can shape studio creativity. One of my students in last year's class refined his design in the playground studio in response to class discussion. I felt some satisfaction from that effort because our playground studio designs are turned into local reality.

Peter Forbes (February 1985) highlighted two "ideological pitfalls . . . endemic in American education": "that curiously American syndrome of academic versus 'practical' suspicion [which] short-circuits the natural flow of people and ideas" and "the Henry Ford approach to learning: an isolation of ideas, disciplines, faculties, and outside resources which are only to be applied serially and discretely to the educatee."

No one, in the studio or outside, has knowledge broad enough to fully integrate all parameters into a student's studio experience. Discrete application of definable, yet related, bodies of knowledge is certainly necessary in the university setting we know today. This is especially true when serving working people through evening courses—they have the luxury of neither time nor total involvement.

The course was just a good idea two years ago

The Department of Architecture at the University of Washington is 70 years old, and its NAAB-accredited professional M. Arch. degree program is 17 years old. A series of three practice-related courses has been offered for some time, taught by practitioner faculty: ARCH 571 Building Economics, ARCH 572 Specifications and Contracts, and ARCH 573 Professional Practice. In response to NAAB's 1982 visiting team report, the Department has been considering an increase in the number of professional requirements and a corresponding decrease in electives.

As the College of Architecture and Urban Planning's *house counsel*, I felt compelled two years ago to propose to the Department that I develop a course in the law for its students. Whereas building construction students take required courses in business law, labor law, and construction law, architecture students take no required courses in the law. Reaction from faculty members and practitioners was very favorable, and I spent Autumn quarter 1983 and Winter 1984 preparing a new course with the aid of an architecture graduate student.

Given our usual "498" experimental-course label, I offered ARCH 498 in Spring 1984, calling the course "Avoiding Design Professional Liability." By teaching the class one evening a week for three hours, I was able to attract non-matriculating students who work during the day, in addition to full-time students. The initial class numbered 36: 11 practitioners, 3 architecture grad students, 5 architecture undergrads, 8 landscape undergrads, 8 construction undergrads, and one engineering grad student.

This past Spring quarter, I offered the course again under the same label and title with the same schedule. This class numbered 40: 14 practitioners, 8 architecture grad students, 7 architecture undergrads, one landscape grad student, 4 landscape undergrads, 2 construction undergrads, 3 civil engineering grad students, and one civil engineering undergrad. The mix of disciplines is refreshing!

Students are introduced to a wide range of legal issues

The course is described as an introduction to the legal issues facing architects and engineers, focusing on liability avoidance. Topical areas include basic legal doctrines, the design professional/client relationship, the construction process, and professional practice problems.

The course's major objectives are written as performance specifications. "As a result of satisfactorily completing this course," students will "be prepared to understand the design professional's relationships with clients, contractors, and the public; recognize the design profession's risks and exposures; help protect [them]selves as design professionals against liability; and know how a design professional should react to a suit or claim."

With the course in its infancy, I have not yet given any examinations. I find that this lowers the students' anxiety level and raises their interest in learning! A student's grade is based 50 per cent on a 10-page (maximum) paper written about a legal topic of the student's choice which I approve halfway through the quarter, based on a one-page abstract. The other 50 per cent is split equally between general class participation and participation in "team" leadership.

The class is conducted in a lecture/discussion format with two ten-minute breaks. Having read about 100 pages from the text prior to class, the students sit in four-person teams (representing different disciplines and chosen the first night) for the full class period. Whenever I come to a case opinion or author's problem from the text, the ten teams break out for a few minutes' discussion led by one of their members. This allows greater participation by everyone and two weeks' leadership responsibility for each student. When the entire group reconvenes, I ask for student explanations and comments—the practitioners tend to dominate the wider discussions.

An unintended byproduct of this year's course has been the timely discussion of Washington's new architects' licensure law. Introduced in January at the start of the 1985 legislative session and signed in April by Governor Booth Gardner, the law changes the state from a "title" act to a "practice" act. As a university faculty senate legislative representative, I spent two days each week at the legislature in Olympia for four months and testified before the House Commerce and Labor Committee in favor of the licensure bill. I was able to provide the students with firsthand knowledge of the process and the bill's contents, adding to their understanding of both.

Text and references are fundamental to receptivity

Text selection is a very important key to the course's success. Last year I selected *Avoiding Liability in Architecture, Design and Construction*, edited by Robert Cushman (Wiley-Interscience, 1983). This year, to achieve the continuity of a single author, I selected *Legal Aspects of Architecture, Engineering and the Construction Process*, a casebook by Professor Justin Sweet of UC Berkeley's Boalt Hall (West Publishing, 1977, second edition). Sweet's text has been well received by the students.

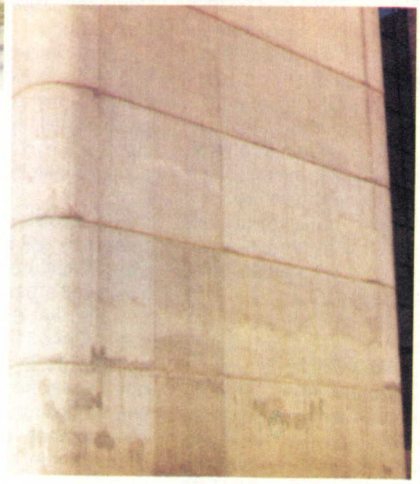
Sweet's third edition has just been released by West, and I will use it in next year's course. Features of the new edition include thoroughly updated laws, the latest topics in the field, new and expanded chapters, an increased number of problems and defined legal terms. His new organization of the 38 chapters, combined with appendices of the most useful standard forms, is very good. The only difficulty with his text is covering the material in a ten-week quarter; I hate to leave anything out completely!

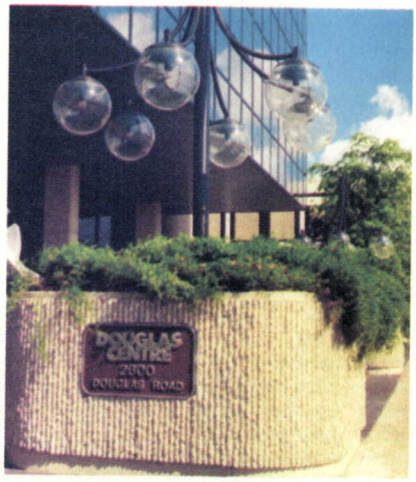
In addition, a number of other books have been placed on reserve in our College library, including: *Architects & Engineers* by James Acret (Shepard's/McGraw-Hill, 1984, second edition), *Untangling the Web of Professional Liability* by Edward and Richard Howell (Design Professionals Insurance Company, 1980, third edition), and Cushman.

Legal research is conducted best in a full-service law library. My students are fortunate to have ready access to the University's comprehensive law library, located just two blocks from the College.

Today Seattle, tomorrow the nation!

The Department has invited me to apply for a permanent course number, ARCH 574—a good indication of the course's acceptance in the curriculum. I will not be satisfied, however, until the course becomes a professional requirement for all M. Arch. students, here and across the country.





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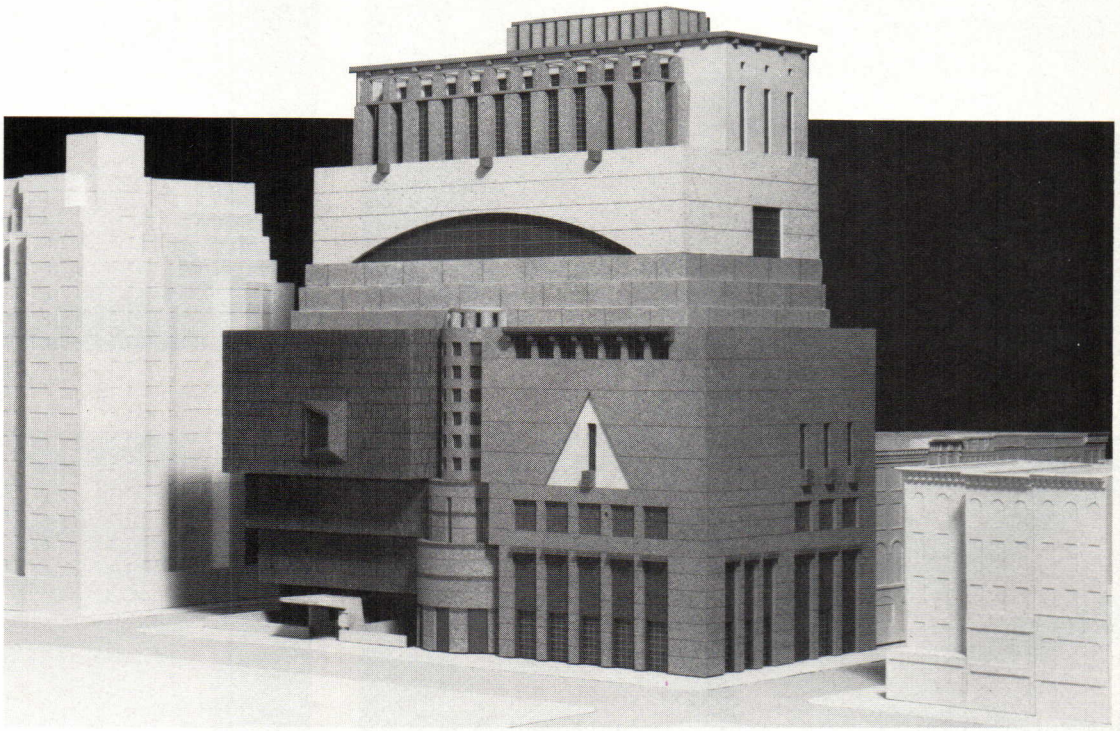
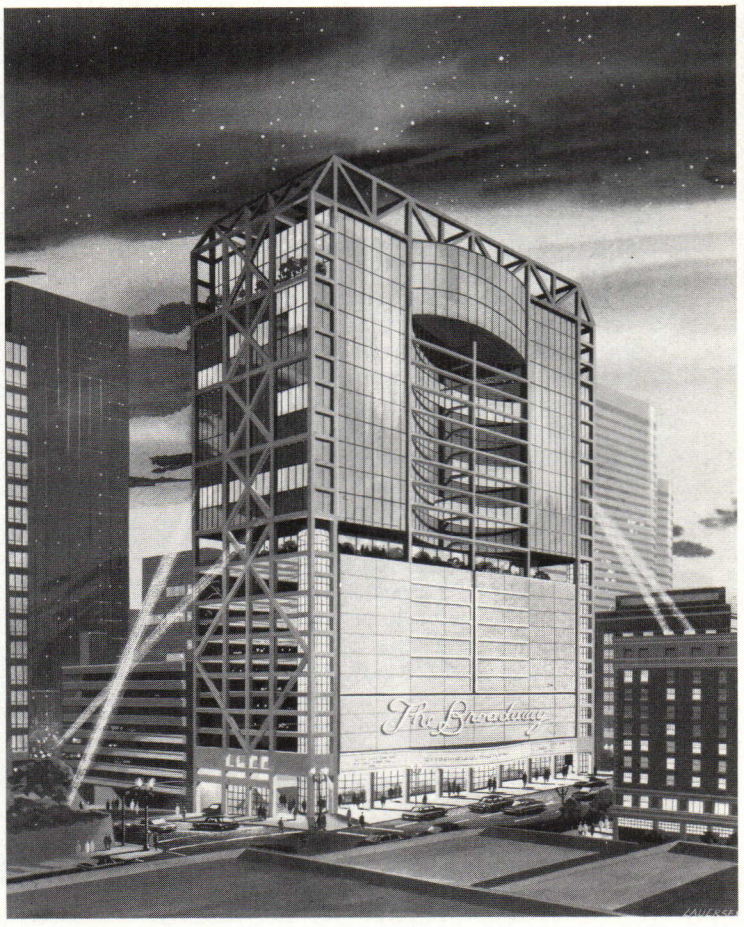
Whitney Museum expansion proposal seeks a reconciliation of opposites



Nearly four years after its intentions to expand were made known, the Whitney Museum of American Art in New York has unveiled plans by Michael Graves for a 10-story, 134,000-square-foot addition to its existing Marcel Breuer-designed building. Calling the proposal "a difficult project" that must address both the robust modernism of the original 1966 structure (left in model) and the delicate ornamented facades of the surrounding Upper East Side Historic District, Graves has come up with something of a hybrid that has already provoked a spirited debate. The scheme calls for a five-story red and pink granite gallery block connected to the Breuer building by a cylindrical "hinge" meant to mediate between the 30-foot-deep setback of the original Whitney and the street wall of the addition. Above the fifth floor a series of setback stories housing galleries, offices, and a restaurant will span both wings. Although some view the elaborate design as a case of Graves's tail wagging Breuer's much-admired dog, others contend that given the sensitive Madison Avenue context and ambitious museum program, the architect has struck the right balance between old and new.

Broadway melody



Although the proposed Broadway Building in downtown Portland, Oregon, has been planned as an adjunct to the city's new performing arts center across the street, the 20-story mixed-use structure will exhibit considerable flash of its own. Planned in two phases, the concrete-and-steel-framed building will house four below-grade movie theaters, nine levels of parking hidden behind a facade of backlit frosted-glass panels, and 250,000 square feet of commercial and retail space. An elaborately scripted neon sign, an example of the lively graphics the city is encouraging for its entertainment district, takes its cue from the marquee of the old Broadway Theater, a 1925 movie palace that once occupied the site. Project architects are Broome, Oringdulph, O'Toole, Rudolf, Boles & Associates.

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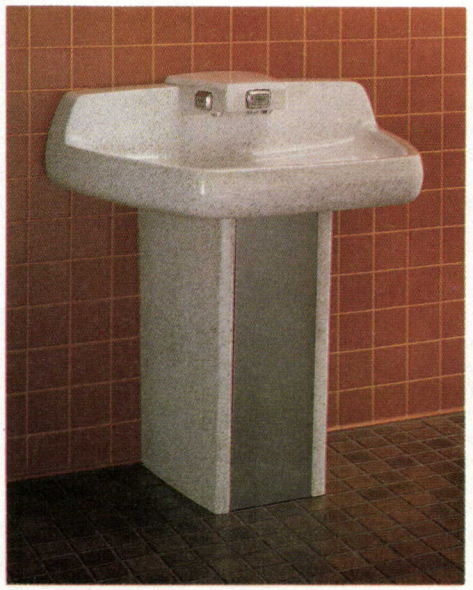

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News briefs

Britain's Environment Minister, Peter Jenkins, ended 26 years of debate by rejecting a developer's proposal to build a 290-foot office tower designed by Mies van der Rohe across the street from John Soane's Bank of England. Although Jenkins characterized the London project as "a bold and imaginative endeavor," he ultimately determined that it would have dominated the area around it "to a wholly unacceptable extent."

The Walter Gropius House, the great symbol of Bauhaus modernism erected in 1938 in Lincoln, Massachusetts, is now open to the public on a regular basis. Through a bequest of Gropius's widow, Ise, to the Society for the Preservation of New England Antiquities, the house and its furnishings will be on view from June 1 through October 15 every Saturday and Sunday from noon to 5:00 P.M. After November 1 it will be open the same hours on the Friday, Saturday, and Sunday of the first weekend of each month. For further information call 617/227-3956.

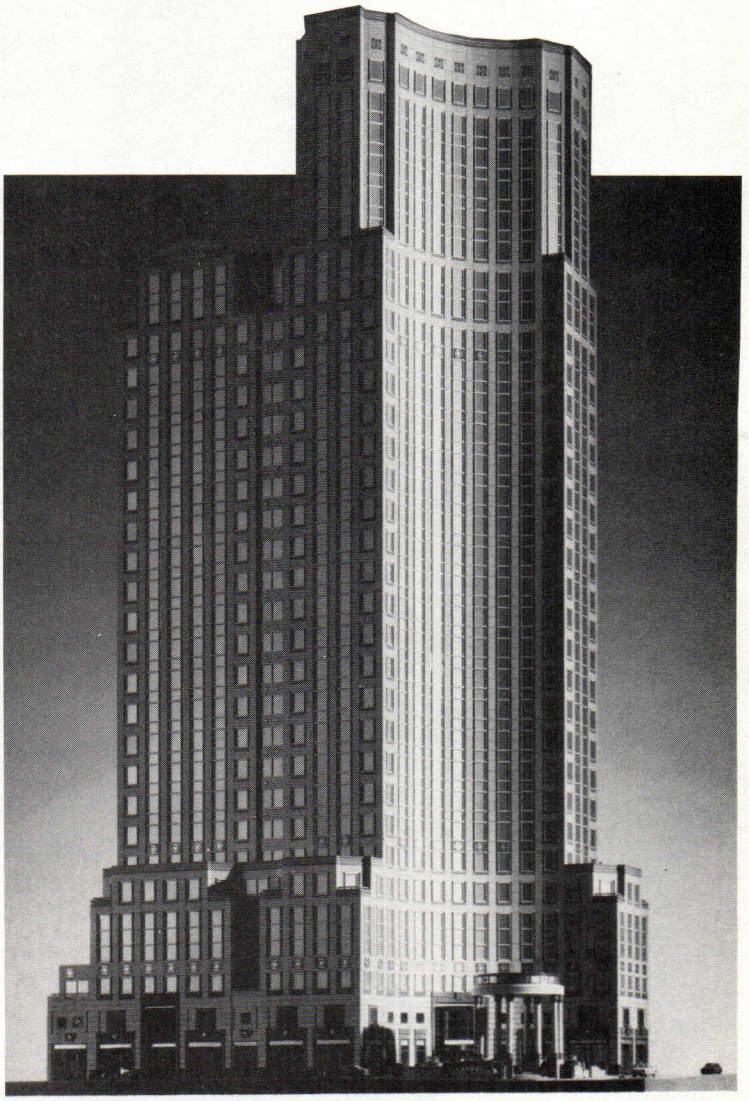
Frances Halsband, principal in the firm of R. M. Kliment and Frances Halsband Architects, has been named the 54th president of The Architectural League. Halsband is the first woman elected president of the venerable New York City organization in its 104-year history.

Steelcase, Inc., the nation's largest manufacturer of contract furnishings, has acquired Stow & Davis, a firm known for its high-quality wood office line. The move is intended to strengthen Steelcase's position in the fast-growing wood segment of the furnishings industry. In a related development, competitor Haworth, Inc., has introduced its first wood line of systems furniture, dubbed The Cygnia Collection.

The American Academy in Rome has tapped nine professional designers among the 26 artists and scholars cited in its 1985-86 Rome Prize competition. Winners include architects James B. Favaro, Wesley Clayton Jones, Jorge Silvetti, Roy Wilson Lewis, Jr., and the firm of Taft Architects; landscape architect Joanna Dougherty; industrial designer William Lansing Plumb; and urban planners Elizabeth Humstone and Allan B. Jacobs.

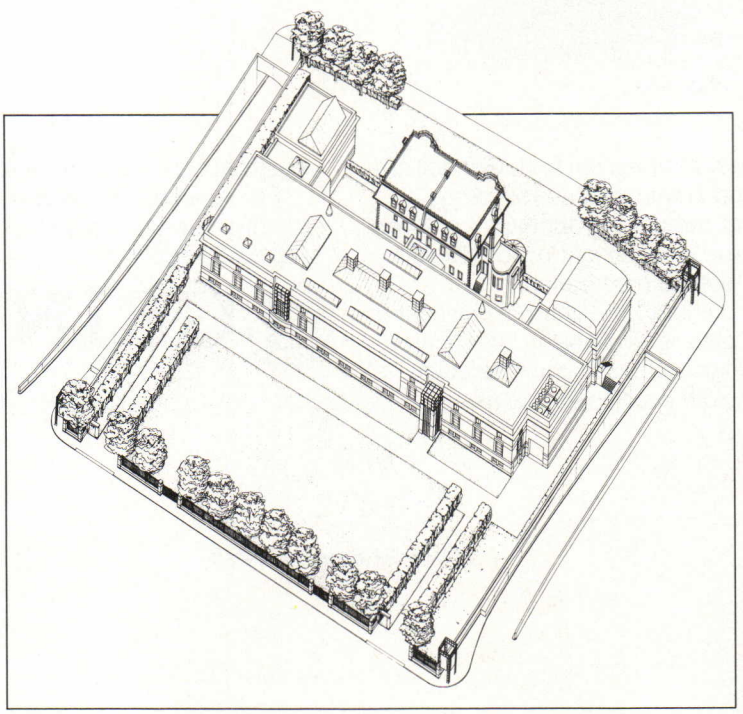
Carnegie Hall in New York has begun a $50-million campaign to raise funds for the renovation and restoration of the 94-year-old landmark. Part of the over-all project is a new mixed-use tower, designed by Cesar Pelli, scheduled to rise on a lot adjacent to the hall.

Arts and architecture

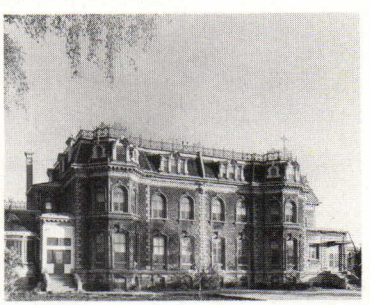


Ever since New York City amended its midtown zoning ordinances in the 1970s to encourage the inclusion of public amenities in new office buildings, a vast array of galleries, atriums, and super-lobbies has largely replaced the outdoor plaza as the symbol of corporate architectural luxe. One of the most unusual of these spaces—a two-level retail concourse devoted exclusively to 90 shops catering to the antiques trade—will be incorporated into a new 429,000-square-foot commercial structure currently under construction at the corner of East 57th Street and Lexington Avenue. Dubbed "Place des Antiquaires" and embellished with marble columns, stone and teak floors, and bronze storefronts, the 50,000-square-foot space will be part of a 34-story tower designed by Kohn Pedersen Fox Associates. The granite-clad project features a six-story-high rusticated base divided into 20-foot-wide, townhouselike modules that will link the building to the low-rise character of 57th Street. A gently curving setback tower will embrace a circular "tempietto" flanked by square pools and ornamental fountains—a bit of the Italian Baroque that is also evident in a two-story lobby said to be modeled on the portico of the Villa Papa Guilio in Rome.

A new center for architecture in Canada



Founded by Phyllis Lambert in 1979 as an international museum and research institution, the Canadian Centre for Architecture has announced plans for a permanent facility in downtown Montreal to house its collection of over 100,000 design-related works. The complex will comprise the Shaughnessy House, a Second Empire-style mansion built in 1874 (small photo below), and a new 120,000-square-foot building designed by Peter Rose that will open onto a public park facing Baile Street. Clad in gray stone, Rose's U-shaped structure will house exhibition galleries, a library, and a 250-seat auditorium on its first-floor level, curatorial and technical services on the ground floor, and collection storage vaults in two below-grade levels. Public reception rooms and administrative offices will occupy the restored mansion.



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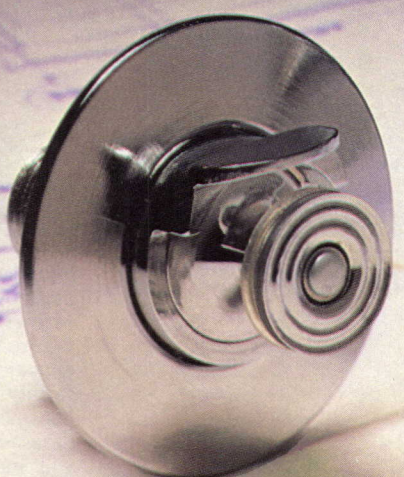

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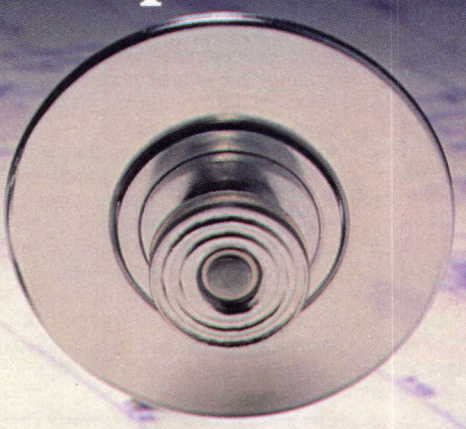

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Philadelphia's sacred cap finally falls victim to a developer's lofty ambitions

The completion of Liberty Place, designed by Chicago architect Helmut Jahn, should alter Philadelphia's reputation as a conservative city developed mainly by locally based architects. Shown in shaded blue area on the map below, the project is just two blocks from City Hall and its statue of William Penn.

Can a 36-foot-high, 27-ton bronze statue affect the entire pattern of development in a major American city? It can if it is the Alexander Milne Calder statue of William Penn, which stands 491 feet above the street atop the extravagant French Second Empire City Hall in Philadelphia. Consistent with the city's low-key speculative environment, there has been a so-called "gentlemen's agreement" among Philadelphia developers to limit the height of all high-rise buildings to a level below the wide brim of the great Quaker's hat.

In the past the agreement has been quietly enforced by the Philadelphia Redevelopment Authority, which has statutory powers of eminent domain. When developers utilize these powers to assemble a sufficiently large site in small-scale Center City, their projects must be approved by both the Authority and the City Council. And until recently, any proposal that exceeded the height limitation had been summarily rejected. Now, however, with the creation last summer of an eight-block "skyscraper zone" just west of City Hall, buildings in Philadelphia are about to take a major leap upward. Witness plans for Liberty Place, a much-anticipated, three-million-square-foot development designed by Helmut Jahn of Murphy/Jahn that features a first-phase tower rising 60 stories and 915 feet to the top of its Art Deco-influenced spire. (Future phases will encompass a similar, somewhat smaller 50-story tower, a 250-room hotel, and two levels of retail space.)

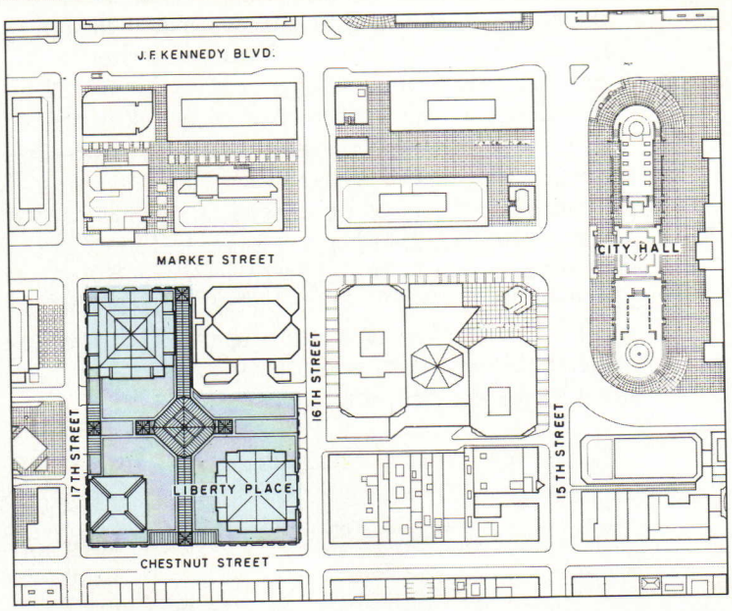
Located on an L-shaped, 3.4-acre site in Center City, Liberty Place is a project of Willard Rouse III, nephew of James Rouse whose celebrated urban festival markets have come to exemplify inner-city rebirth. The younger Rouse's current proposal has forced city fathers to alter their time-honored perceptions about what sort of place Philadelphia is, since the primacy of the Penn statue has traditionally asserted that the expression of mere commerce (i.e., skyscrapers) is not dominant in this history-drenched city.

Clad in gray granite, blue glass, and aluminum, Jahn's scheme is the latest and most refined of his recent historicist skyscrapers. In a presentation to Philadelphia's Foundation for Architecture, Jahn described the design as an evolution of the '20s motifs he earlier explored in the curvilinear detailing of his addition to the Chicago Board of Trade and in the patterning of the multi-colored glass curtain wall at One South Wacker Drive. The design is also strikingly reminiscent of the architect's scheme for Southwest Center in Houston, but with much finer-grained detailing. Finally, many, including Jahn himself, have mentioned similarities to the Chrysler Building. But unlike skyscrapers of the 1920s and '30s, which seem to be carved out of monolithic shafts of stone, Jahn's schemes are self-centered, shining beacons of glass lit from within—the cutting edge of developer nouveau glitz.

With its provisions for a hotel and shopping arcade, the Rouse plan is likely to be a crowd-pleaser, but it also presents a unique opportunity to look with fresh eyes at the question of whether taller is really better. Weld Coxe, writing in *The Philadelphia Inquirer*, contends that "horizontal development" is superior when amenities are provided to attract tenants to smaller, lower-density projects. This practice keeps land prices low and ensures profitable yet competitive rents when new projects go up. This is, to a large degree, how Philadelphia developed after World War II, the positive result being a compact, relatively cohesive commercial core. Most major Center City structures are between 20 and 35 stories tall, are only a few minutes apart on foot, and are connected to the underground concourse that links them to the regional rail system. Philadelphia has thereby been spared the kind of spotty downtown development other cities have endured: enormous "prestige" projects surrounded by parking lots or warehouses whose owners are waiting for the "big deal" to come their way.

Rouse argues, however, that Philadelphia's pattern of horizontal building has kept the city from reaching its full potential. The low rents have discouraged outside investors, he says, and local builders are content with modest returns from timidly designed structures based on conservative pro formas. Rouse's project may change all that: he paid record-breaking prices for his land, and he will have to realize record-breaking rents. The city has a relatively low commercial vacancy rate and with the completion of a number of long-awaited projects (connection of the separate regional rail systems the most prominent), Philadelphia could be on its way to becoming, in developer jargon, a "hot" city.

Clearly, the Murphy/Jahn towers will not be alone on the skyline for long. Inspired in part by the Rouse plan, the city has embarked on an overhaul of its Center City zoning, and abandonment of the skyscraper zone is not likely to be among the final recommendations. It remains to be seen, however, whether Philadelphia's new phase of office development will be better, or just bigger. *James S. Russell*



residential qualities of prewar apartment buildings located around the corner on Park Avenue.

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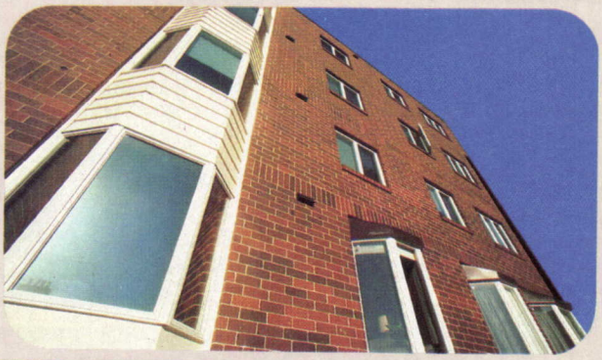

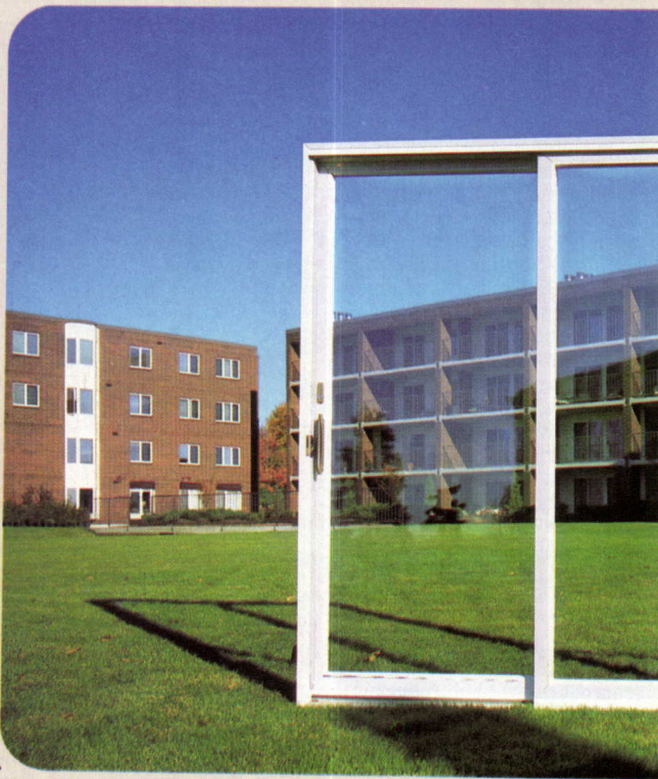

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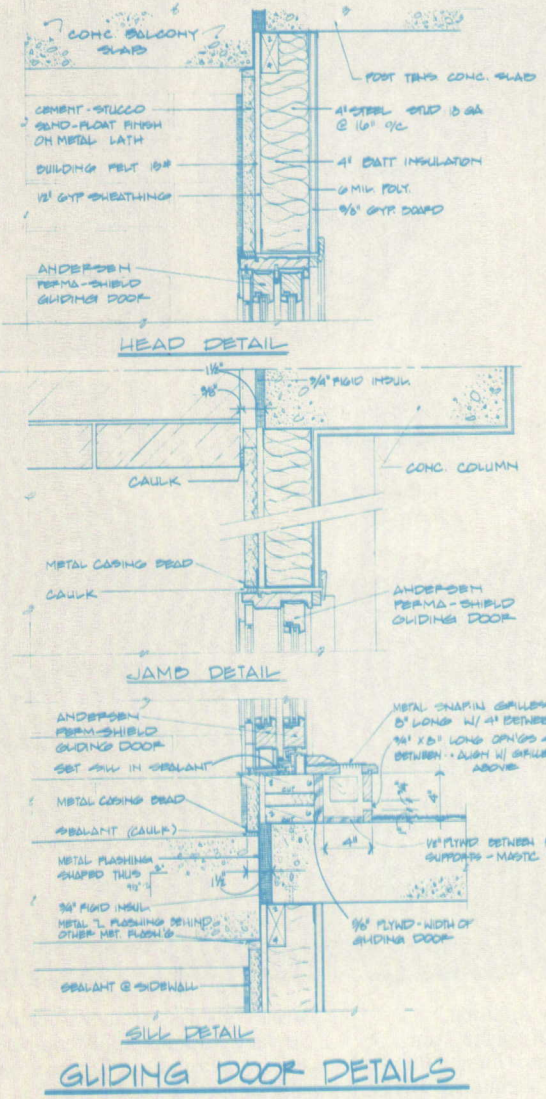

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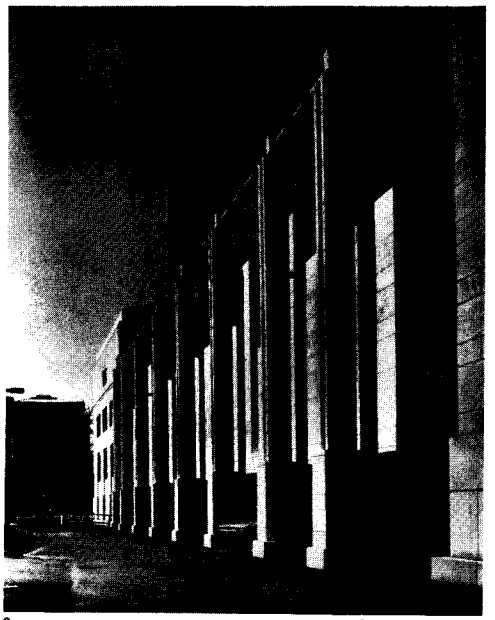
Design awards/competitions: American Library Association/AIA 1985 Awards of Excellence for Library Architecture

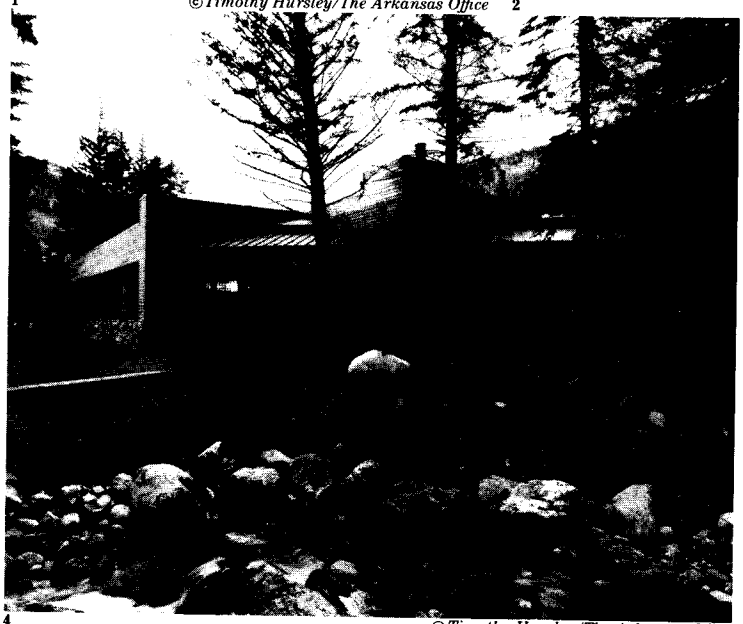
Two additions, two renovations, and one new library building have been cited in the 11th biennial Library Buildings Award Program, sponsored jointly by the American Library Association and the AIA. This year's jurors were Herbert Newman, FAIA; William Turnbull, Jr., FAIA; Paul A. Kennon, FAIA; Margaret Beckman, chief librarian at the University of Guelph, Canada; David Smith, associate director for public services at the Hennepin County Library in Minnetonka, Minn.; and David C. Wiley, construction coordinator for the Broward County Library in Fort Lauderdale.

1 ©Timothy Hursley/The Arkansas Office

2 ©Peter Aaron/ESTO



3 ©Cervin Robinson



4 ©Timothy Hursley/The Arkansas Office

5 ©Christopher Irion

1. Law Library Addition, University of Michigan, Ann Arbor, Michigan; Gunnar Birkerts & Associates, Architects. The architects' challenge was to design a 62,000-square-foot underground addition to an existing neo-Gothic academic library. The solution is a three-story reinforced concrete structure that features two light wells clad in a bronze curtain wall. Skylights fill the interior with light and open dramatic views of the original building from below. "A masterstroke of campus planning and design," noted the jury.

2. Graduate School of Business Library, New York University, New York City; Voorsanger & Mills Associates, Architects (RECORD, August 1983, pages 80-83). Occupying a 25,000-square-foot commercial loft in downtown Manhattan, a 100,000-volume academic library was meant to offer urban business students maximum privacy within a highly competitive study environment. Toward that end the architects placed most reading rooms and study carrels as far as possible from active public areas. The jury pointed out that the renovation has a sense of "clear circulation and function [and a] sophisticated use of architectural elements that celebrate human scale, wit, and innovation."

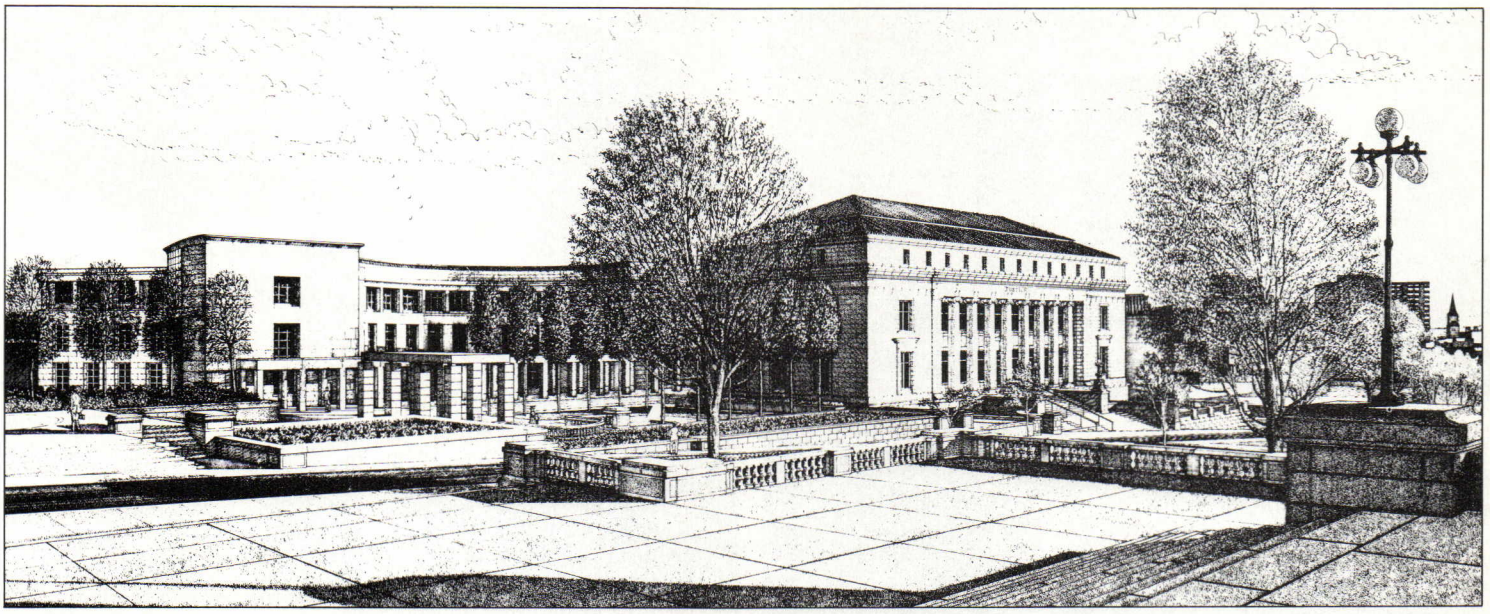
3. Folger Shakespeare Library Addition, Washington, D. C.; Hartman-Cox Architects. A light steel structure suspended between steel columns houses an addition to a national research library on Capitol Hill. The jury praised the architects for sheathing the addition in marble that "recalls the neoclassical front of the old library" and for designing a new vaulted reading room that acts as "a harmonious foil to the Elizabethan complexity" of the main space. "An excellent example of renovation and transformation," concluded the jury. "The architects showed respect for the existing character, materials, and massing, but created new spaces with light-washed walls that are better than the old."

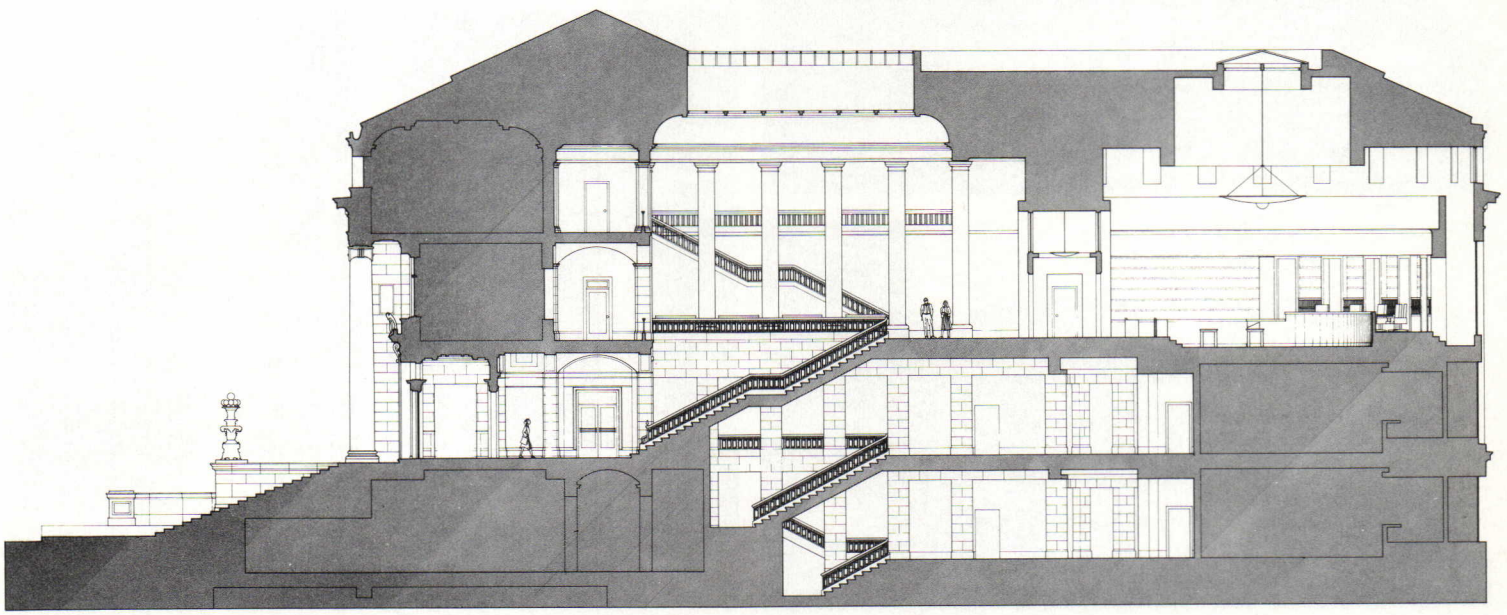
4. Vail Public Library, Vail, Colorado; Snowdon & Hopkins, Architects. A 16,375-square-foot, 60,000-volume public library for a resort community "evokes the duality of rustic informality and sophisticated library planning," observed the jury. Grass roofs, clapboard siding, and native stone trim enable the structure to blend in with its wooded context. The jury called the building "architecture of the landscape, . . . an earth-sheltered, energy-efficient design [that] responds appropriately to its awesome setting without making a self-conscious statement."

5. San Francisco University High School Library, San Francisco, California; Robert Herman Associates, Architects. A 7,200-square-foot library addition and rooftop recreation surface for a small private school was built over an existing two-story, steel-and-concrete auditorium. Although the jury admired the new structure for its design references to the original building, it reserved its highest praise for the interior plan, which layers stacks and study areas around a central space that can be used for gatherings or for individual study. The library, noted the jury, is "comfortable and inviting for use by all." It features "a certain elegance and panache [and is] a special domain within the school environment."

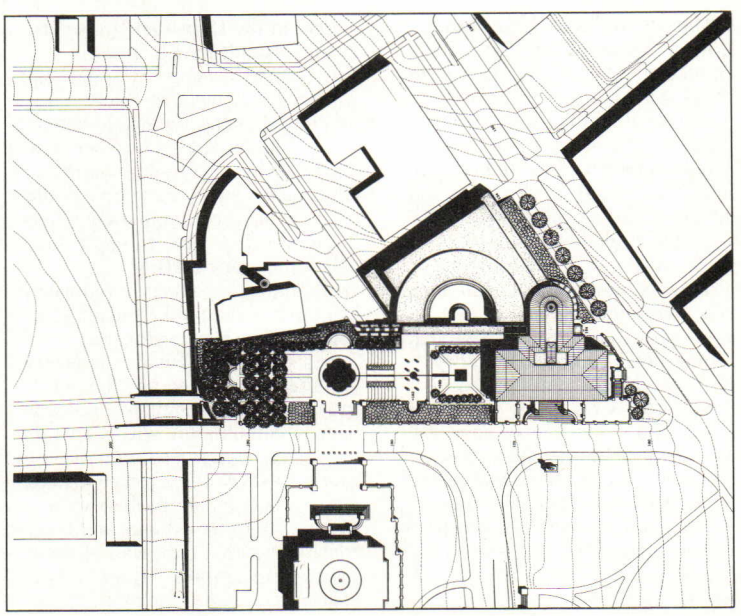
Minnesota Judicial Building Design Competition

Leonard Parker Associates has been selected as the winning firm in a national competition to design the new $36 million Minnesota Judicial Building in St. Paul. A 13-member jury chaired by John Rauma, FAIA, chose the Minneapolis firm after narrowing down 54 original entries to five finalists. The four runners-up were Zimmer Gunsul Frasca Partnership; Rafferty, Rafferty, Mikutowski, Roney Architects and Gatje, Papachristou, Smith Architects; Gunnar Birkerts and Associates and Architectural Alliance; and Frederick Bentz, Milo Thompson, Robert Rietow.



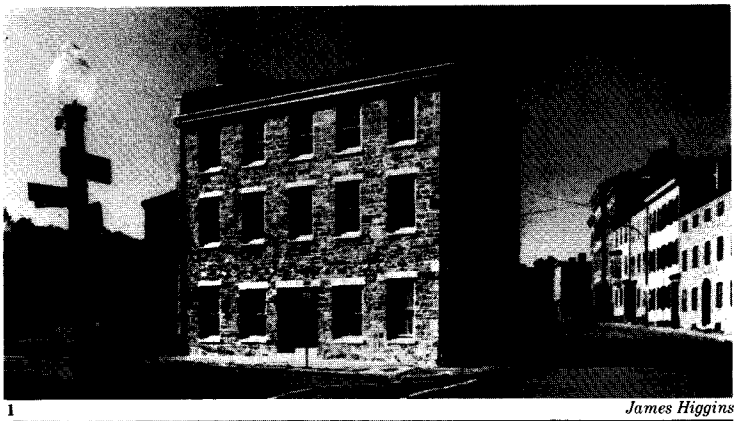


Premiated design: Leonard Parker Associates
Located on the State Capitol Mall, the new complex for the Supreme Court and Court of Appeals will lie directly across the street from both the Minnesota State Capitol and the State Office Building, and its construction will complete an urban ensemble symbolic of the executive, legislative, and judicial branches of government (plan right). The most unusual, and challenging, aspect of the competition brief was its requirement that the existing Minnesota Historical Society, a handsome Renaissance Revival structure designed by C. H. Johnson in 1915 (hipped-roof building in rendering top), be incorporated into the over-all scheme. Toward that end Leonard Parker Associates chose to renovate and expand the historical society to house all public areas—including a monumental grand staircase leading to three new courtrooms in an apsidal extension (section)—while adding a semicircular wing for judiciary offices. Although the addition is by no means a literal copy of the historical society, it clearly refers to its architectural progenitor both in massing and in the rhythm of its granite facade. Referential, too, is the architects' inclusion of such classical components as pergolas, loggias, fountains, and balustrades on a landscaped terrace that forms a dignified connection between the judicial complex and the adjacent Beaux-Arts State Capitol. Juror Beth Dunlop, architecture critic for *The Miami Herald*, said of the design that it is "a comparatively sober and respectful building, and though not forbidding, it evoked a feeling that justice is serious business."

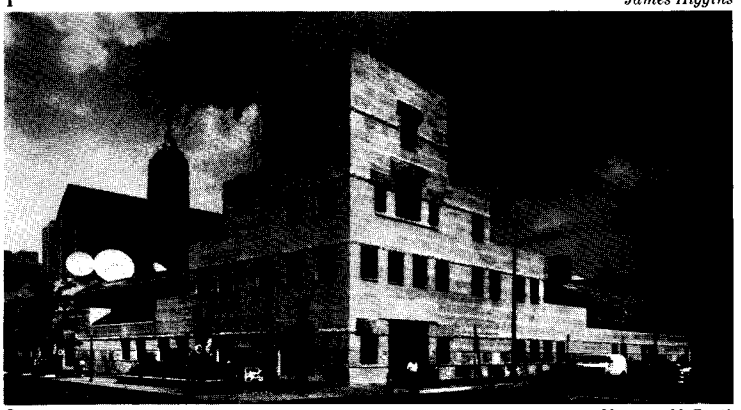


Building Stone Institute 1985 Tucker Awards for Architectural Excellence

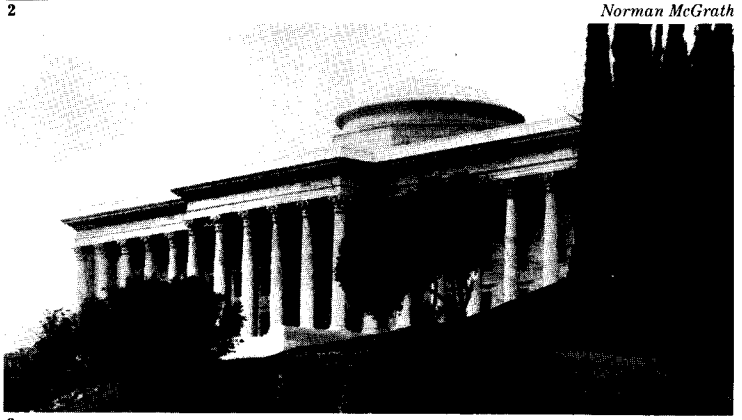
The Tucker Architectural Awards Program is an annual project of the Building Stone Institute, an international trade association founded in 1919 that comprises quarriers, fabricators, dealers, and installers of natural stone. We illustrate below seven projects cited by the 1985 jury, which consisted of Herbert Beckhard, partner in Herbert Beckhard Frank Richlan & Associates; Robert M. Kliment, partner in R. M. Kliment and Frances Halsband Architects; Mildred F. Schmertz, executive editor of RECORD; *and Der Scutt, partner in Der Scutt Architects.*



1 *James Higgins*



2 *Norman McGrath*



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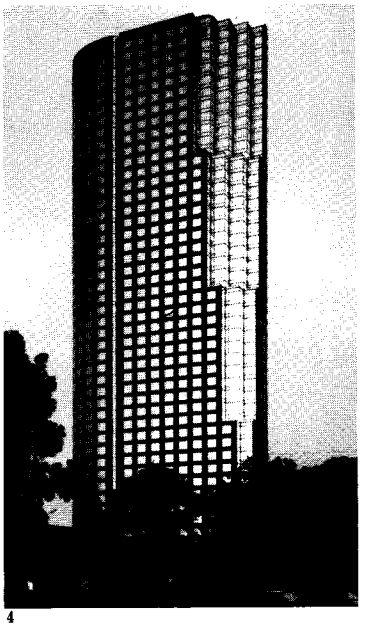

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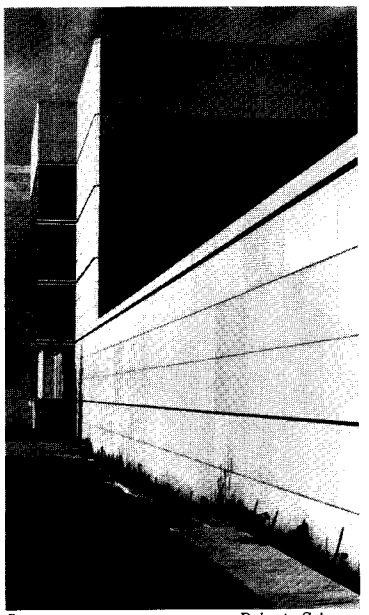
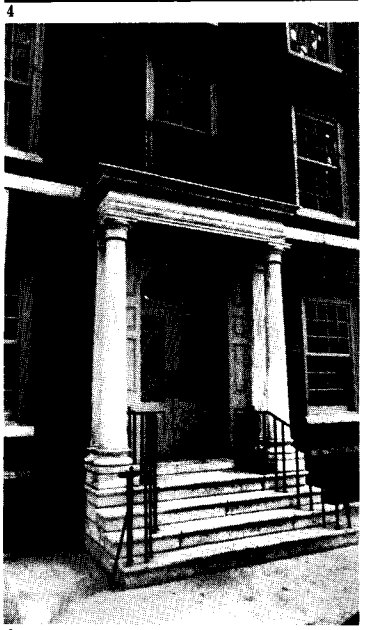


5 *Roberto Schezen*



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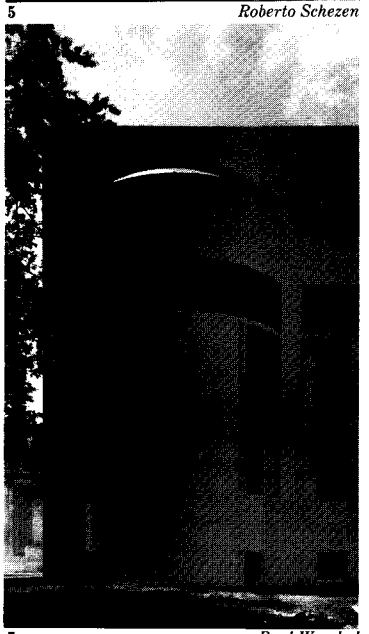


7 *Paul Warchol*

1. The Austin Block Restoration, Boston, Massachusetts; Ann Beha Associates, Architects. As part of the restoration of a 19th-century commercial building in Boston's Charlestown section, new rubblestone was collected on Outer Brewster Island, cut by hand, and installed at the ground-floor level. The jury lauded "the superb workmanship with which the original [granite] quoins, lintels, and sills were matched."

2. WCCO-TV Headquarters Building, Minneapolis, Minnesota; Hardy Holzman Pfeiffer Associates, Architects. A facade of yellow-pink Minnesota stone, copper shingles, and insulated glass characterizes a new television station headquarters in downtown Minneapolis. The jurors reserved their highest praise for the structure's textured stone banding, which they called "fresh and creative."

3. Seat of the Universal House of Justice, Haifa, Israel; Housein Amanat, ARD Design International, Architects. A modern office building housing the headquarters of the Baha'i Faith is encased in a shell of white Pentelikon marble. Although the jury had some doubts about placing contemporary offices in an oversized Greek temple, it called the stone-cutting craftsmanship "superb" and worth bringing to the public's attention.

4. San Felipe Plaza, Houston, Texas; Skidmore, Owings & Merrill, Architects. Polished and flamed gray-brown Caledonia granite was used in combination with a curtain wall of champagne-colored glass to clad a 45-story office tower. In the lobby, a white marble floor with black granite medallions and border contrasts with a core wall of rose Laurentian granite. "The building," observed the jury, "exhibits great restraint and care in its detailing, particularly in the handling of the granite and marble."

5. Dallas Museum of Art, Dallas, Texas; Edward Larrabee Barnes Associates, Architects. The jury characterized a new museum in downtown Dallas's Arts District as "a building of great quiet and serenity which essentially is a background for the art, rather than a structure that asserts itself as art in its own right." They praised the architects' exterior use of large blocks of Indiana limestone, etched with deep V-cuts, as part of "a dignified tradition [that] gives the museum a monumental character."

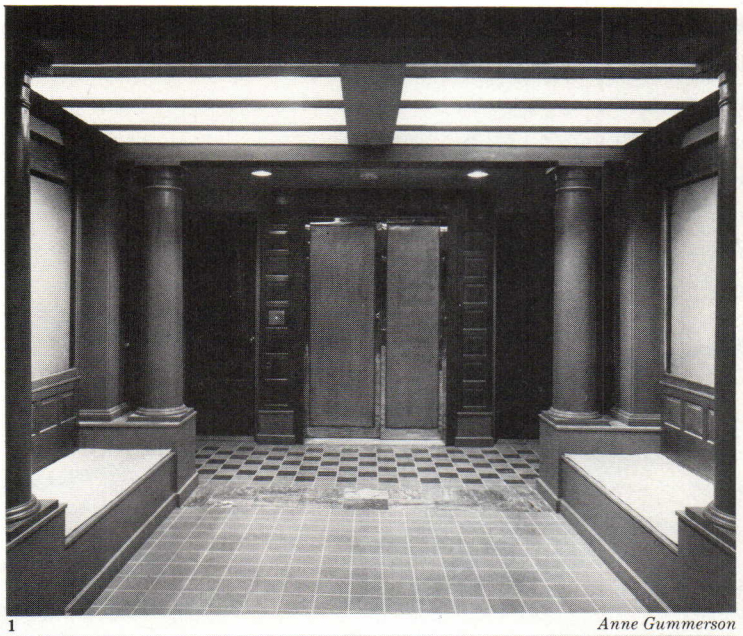
6. Fraunces Tavern Restaurant Restoration, New York City; Stincomb and Merkelson, and Fan Rongved and Erickson, Joint Architects. During the over-all restoration of a neo-Georgian structure in lower Manhattan, an existing portico was dismantled and its elements reproduced in Georgia marble by both hand and machine tooling. The jurors admired the architects' "great competence and care," and they lauded "the skill and craft of the stone-carver."

7. J. B. Speed Art Museum, Louisville, Kentucky; Geddes Brecher Qualls Cunningham, Architects. The jury praised the manner in which the architects recessed dark slate panels into the limestone facade of a museum addition—a decision that allowed the new structure to harmonize with both the original neoclassical building and a slate-and-glass Miesian wing added in 1973.

In addition to the buildings illustrated, the jury also awarded a citation to the Jefferson Memorial in Washington, D. C., in the category of a structure completed at least 25 years ago.

Baltimore Chapter/AIA 1984 Design Awards Program

A mass transit facility in Baltimore, a state office and research complex in Annapolis, and a riverfront specialty shopping center in Minneapolis were among the six completed projects recently cited by the Baltimore Chapter of the American Institute of Architects in its annual design awards program. Boston architects John M. Clancy, FAIA, Robert Kramer, FAIA, and Robert Brown, AIA, served as jurors for the competition.

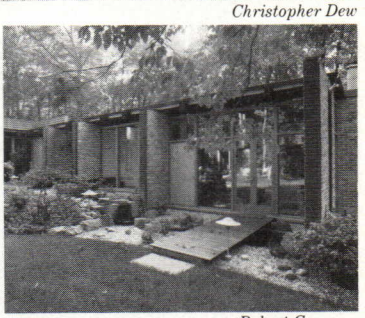


1 *Anne Gummerson*

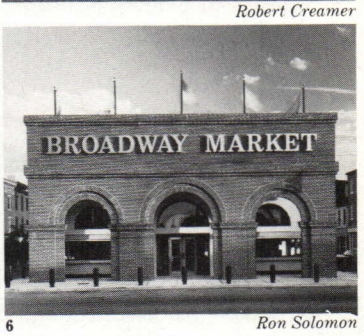
2 *Christopher Dew*

3 *F. Harlan Hambright*

4 *Ron Solomon*



Robert Creamer



6 *Ron Solomon*

1. The Park Plaza, Baltimore, Maryland; Cho, Wilks & Benn, Architects. The focus of an office building renovation was the reworking of the street-level entry and storefronts and the creation of a new main lobby. The jury commented that the strength of the design was its "robust addition of new tissue to the street environment" and the introduction of pleasing new materials, colors, and lighting into the expanded columnar lobby space.

2. Riverplace, Minneapolis, Minnesota; D. I. Design & Development Consultants, Architects. The historic Main Street Warehouse and Brown-Ryan Stable were renovated and incorporated into a 100,000-square-foot, multi-level shopping center, part of a larger mixed-use residential and commercial complex near the Mississippi River. The jury praised the project for going beyond the normal requirements of a typical mall and for responding to civic and urban concerns.

3. Maryland Department of Agriculture, Annapolis, Maryland; VVKR, Architects. Located on a 15-acre suburban site, a mixed-use governmental complex comprises 60,000 square feet of offices, 40,000 square feet of laboratories, a greenhouse, and a vehicle maintenance center. The jurors especially liked the detailing of the building's aluminum and brick exterior, and they singled out the incorporation of a pedestrian circulation spine "to humanize and enliven the interior spaces."

4. Charles Center Metro Station, Baltimore, Maryland; RTKL Associates, Architects. The largest of nine stops along Baltimore's new rapid transit system was designed to be a dramatic and monumental terminus, symbolic of its location in the heart of the city's downtown business and financial district. The jury felt that the use and placement of neon art by artist Stephen Antonakos and selection of lighting and acoustical ceiling systems contributed to a lively, humane subway interior.

5. Private Residence, Baltimore County, Maryland; David H. Gleason Associates, Architects. For a renovation and expansion of a Miesian suburban house built in 1959, the architect chose to continue the four-foot module of the existing building with a series of brick cavity bearing walls with glass and wood infill. By placing the wing at right angles to the original structure, the architect created a new landscaped courtyard—a decision that the jury felt led to a better relationship between the house and its surroundings.

6. Broadway Market Rehabilitation, Baltimore, Maryland; Amos & Bailey, Ltd., Architects. A city-sponsored urban renewal project in Baltimore's Fells Point neighborhood involved the restoration of an early-20th-century food market, located on the 50-foot-wide median strip of the area's major retail street. In order to create a prominent visual reference point, the architects placed a triple-arched brick screen wall in front of a new stucco-clad addition—a design element the jury praised as "a satisfying anchor for its urban location [that] adds an almost heroic focus to the neighborhood."

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Memphis, by Barbara Radice. New York: Rizzoli, 1984, $35.

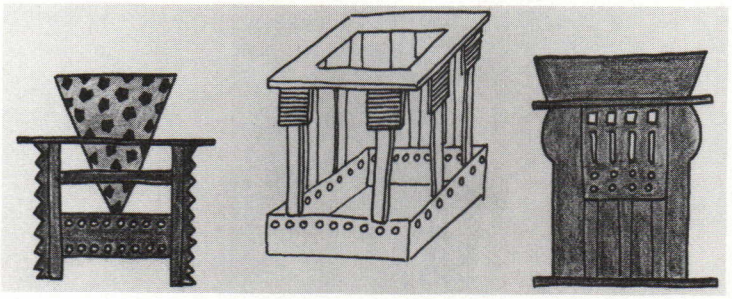
The Hot House: Italian New Wave Design, by Andrea Branzi. Cambridge: MIT Press, 1985, $25.

Reviewed by Karen D. Stein

Several Milanese architects and artists banded together one winter's eve in 1980, vowing to "reinvent an approach to design." Bob Dylan's raspy rendition of "... the Memphis blues" provided background music to the powwow and became the group's namesake. In her book, Barbara Radice not only describes those early meetings of Memphis—all-night sessions that took place amid scraps of yellow trace and cigarette butts—but also chronicles the group's leap into the limelight, as photographs of their heretical furniture and textile designs rose through the ranks of the trade magazines the way hit-singles climb the charts. Radice, herself a Memphis member, offers an insider's perspective into the group's oeuvre and the personalities responsible for it.

The Memphis collaboration, as Radice describes it, was initially based on an examination of the process of signification: how new combinations of volumes, colors, and textures could loosen the reins of current stylistic syntax and, perhaps, push back the envelope of signification. Although the group's experiments with materials, color, and decoration are the topics of separate chapters, from page one Radice's text is spare and completely secondary to the glossy photographs it accompanies. The pictures give the actual summary of Memphis's work, and each one represents a design hypothesis. The visual orientation of the book follows logically from the visual orientation of the subject matter; however, the rather obscure, hermetic captions beneath many of the full-page photos (with their citations from a mixed-bag of literary sources that includes Sartre, Warhol, and a Japanese book of tea, among others) degrade the images presented and do little to illuminate the ideas behind the actual *design experiments*—which are, after all, the moral of the story.

As the photos clearly show, Memphis challenged (and continues to challenge) accepted ideas of furniture. Yet Radice does not leave it at that. She claims that Memphis's work succeeds in doing the impossible: it "maintains linguistic independence" since it "lacks learned references." The question is, how can a chair be recognized as a chair if it maintains *linguistic independence* and *lacks learned references*?



Nathalie du Pasquier, drawings for metal objects, 1983 (from Memphis).

Italian architect Andrea Branzi knows better. In his *The Hot House: Italian New Wave Design,* Branzi puts Memphis's linguistic concerns into the theoretical and historical framework of the 20th-century avant-garde. Branzi's book reviews Italian design experiments from '20s Rationalism to '80s New Design, including the work of Studio Alchymia, Archizoom Associati (the author's former group), Global Tools, 9999, *and* Memphis. Branzi makes several generalizations about this fluid avant-garde and describes the struggle for liberation from stylistic limitations as its constant motivating force. New methods of mass-production, renewed interests in craftsmanship, and attempts to quantify architecture numerically are used by the avant-garde as tools for purifying the architectural language and as ways of extracting the essential function and meaning of an object from the excesses of its accrued associations.

Since *The Hot House* does not have *Memphis*'s portfolio style, its photos may appear (mistakenly) parenthetical to the text. But the juxtaposition of furniture and textiles reveals the experimental nature of the design process. The possibilities in surface treatment, decoration, and color are seen as laboratories for testing—and stretching—the boundaries of stylistic syntax.

The communicative potential of an object, which Branzi calls its "cultural information," does have its limitations. Attempts to broaden the linguistic code, rather than add to it, must concentrate on the reworking of existing objects. Yet these efforts are bounded on one side by the function of the object—for the object to be functional this function must somehow be understood in its form—and by the object's accumulated associations. This paradox has informed and transformed the avant-garde's objectives, according to Branzi. The Rationalists were motivated by a search for the Definitive Object—something that would embody, once and for all, the fulfillment of a particular function. New Design, on the other hand, is motivated by the experimental nature of the design process itself.

In his foreword to *The Hot House,* Arata Isozaki alludes to the avant-garde's dilemma shared by Memphis and its compatriots. In Zen training, Isozaki says, the trainees try to empty their minds, hoping to attain the void and thereby reach a new understanding of the world. But most "candidates" are confined by their accumulated knowledge and so cannot, in their lifetime, attain the void. The avant-garde participates in a parallel struggle. Despite Radice's protestations to the contrary, the objects they design cannot be completely without "learned references." Their work is a critical activity that, although unable to "maintain [complete] linguistic independence," *is* able to challenge existing limitations and redefine the realm of the possible.

"I think it's time we took a long, hard look at our lifestyle, Randall. How long are we going to stay surrounded by antiques?"

"The day of big operations": Andrew Carnegie and his libraries

One of the most enduring architectural legacies of American corporate philanthropy is the group of 2,500 public library buildings underwritten by Andrew Carnegie between 1881 and 1917. To commemorate the 150th anniversary of Carnegie's birth, the Cooper-Hewitt Museum—housed fittingly in the steel magnate's New York mansion—has organized an exhibition on the libraries that will be on display through September 9. Exhibition curator Timothy Rub examines the social and architectural implications of Carnegie's patronage.

By Timothy Rub

"Has Andhrew Carnaygie given ye a libry yet?" asked Mr. Dooley.

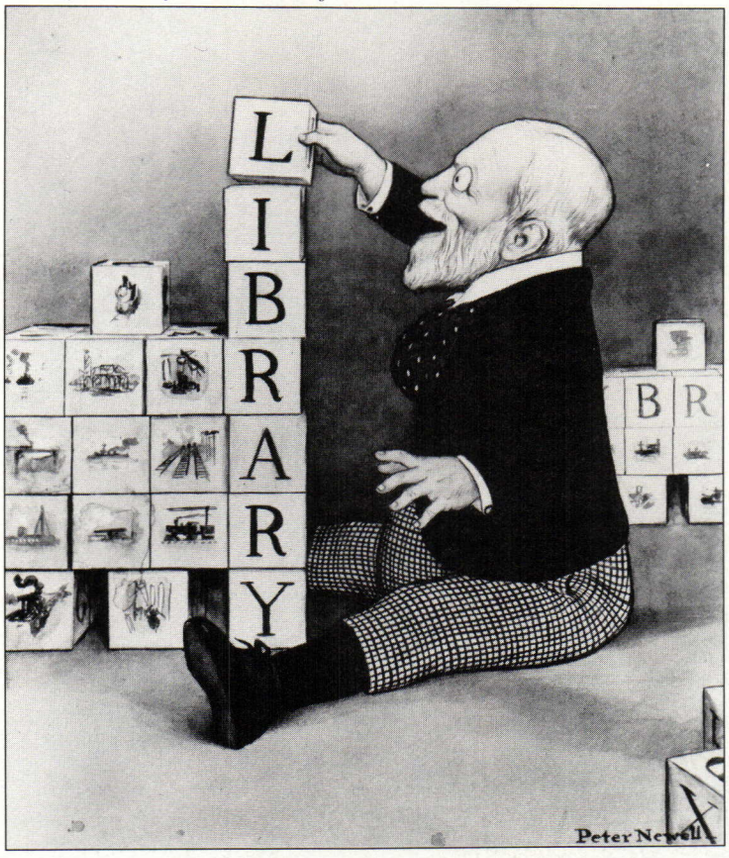
"Not that I know iv," said Mr. Hennessy.

"He will," said Mr. Dooley. "Ye'll not escape him. Befure he dies he hopes to crowd a libry on ivry man, woman an' child in th' counthry. He's given thim to cities, towns, villages, an' whistlin' stations. They're tearin' down gashouses an' poorhouses to put up libries. Befure another year, ivry house in Pittsburgh that ain't a blast-furnace will be a Carnaygie libry. In some places all th' buildin's is libries."
Finley Peter Dunn, *Dissertations by Mr. Dooley,* 1906

Or so it must have seemed in the years just after the turn of the century, when public libraries built with funds provided by Andrew Carnegie were sprouting up across the country faster than they could be counted. It would be easy to discount the remarks of Dunn's comic creation, Mr. Dooley, the Irish-born Chicago bartender who had a comment ready about "ivrything and ivrybody," hyperbole being his stock in trade. In this case, however, he was not far from the mark. Even such a staid journal as *Public Libraries* could in 1903 refer to the recent rash of library gifts as "a sort of epidemic which seems to be spreading," due largely to the influence of Mr. Carnegie. And Mark Twain, a friend of the Pittsburgh steelmaker and shrewd observer of the Carnegie phenomenon, was moved to remark in 1907 that "there is already a multitude of Carnegie libraries scattered abroad over the planet and he is always making additions to the list. When he dies, I think it will be found that he has set apart a gigantic fund whose annual interest is devoted forever to the begetting of Carnegie libraries. I think three or four centuries from now Carnegie libraries will be considerably thicker than churches." If Twain's vision of the future never quite came to pass, he was right on at least one count: four years later, in 1911, the Carnegie Corporation was established "for the advancement and diffusion of knowledge and understanding among the people of the United States and the British Dominions and Colonies." Part of the Corporation's early work, when its founder still played an active role in its operations, was funding the construction of public libraries.

Timothy Rub is a doctoral candidate at the Institute of Fine Arts, New York University. He was a Ford Foundation Fellow at the Cooper-Hewitt Museum, where he worked on the exhibitions "Frank Lloyd Wright and the Prairie School" (1983) and "Skyscrapers" (1984).

The Houghton Library, Harvard University



A caricature of Andrew Carnegie by artist Peter Newell, published in the April 11, 1903 issue of Harper's Weekly.

In reviewing the statistics of Carnegie's library gifts, it is easy to understand how his name came to be so thoroughly identified with this subject in the public imagination—why, as one applicant quaintly put it, the words "Carnegie and library seem to go together just like 'ham and eggs'." Even now, the figures cannot fail to impress. What had begun rather modestly in 1881 with the gift of a building to his birthplace of Dunfermline, Scotland, would develop during the next three decades into an enterprise without parallel in the history of American philanthropy. By the time the last grant for this purpose was made in 1917, the list numbered 2,509 free public libraries throughout the English-speaking world, built at a cost of more than $56 million. Nearly two-thirds of these library buildings—1,679 is the exact figure—were given to communities in Carnegie's adopted country, the United States. Yet his library benefactions represented only a fraction, although the most sizeable one, of what Carnegie managed to give during his lifetime to a multitude of worthy causes. These tended to be as varied as his own interests: endowments to the Carnegie-Mellon University in Pittsburgh and the four Scottish universities, foundations for the promotion of international peace and for scientific research, grants for church organs and aid to the Simplified Spelling Board. In aggregate these donations totaled more than $300 million or roughly 90 per cent of the fortune he had amassed as the founder and controlling partner of the Carnegie Steel Company.

In so doing, Carnegie was acting, with characteristic single-mindedness, upon the principles outlined in the essay entitled "Wealth," which he published in 1889 in the *North American Review.* The Gospel of Wealth, as both essay and the philosophy it embodied soon were called (thus giving it a proper evangelical tone), voiced his belief in the paternalistic responsibility of Capital toward Labor. According to Carnegie, the surplus wealth that had come to be concentrated in the hands of the few constituted a trust to be administered for the benefit of the common man. Charity plain and simple was not what he had in mind, but rather a way of providing the means for helping the "deserving poor" raise their standard of living. The model, of course, was the career of Carnegie himself, whose rags-to-riches journey from the son of poor Scottish immigrants to one of the wealthiest men in America was a powerful example of the virtue of hard work.

Not long after the publication of "Wealth," Carnegie suggested specific ways to implement these ideas in another essay, "The Best Fields for Philanthropy," one of which, not surprisingly, was the gift of a library. This, he wrote, "occupies the first place, provided the community will accept and maintain it as a public institution, as much a part of the city property as its public schools, and indeed, an adjunct to these." Carnegie's advocacy of the library as a worthy object of philanthropy was in large measure based on his own experience. He never tired of retelling the story of how as a youth his love of literature had been kindled by access to the private library opened on Saturday afternoons to the working boys of Allegheny City, Pennsylvania, by one Colonel Anderson. In a broader sense, however, the library was an ideal gift because Carnegie saw in it the embodiment of those values he held in the greatest esteem. It was the "people's university," offering both a practical and esthetic education—but only to those who sought it. He was especially insistent on this point: "I choose free libraries as the best agencies for improving the masses of the people, because they give nothing for nothing. They only help those who help themselves. They reach the aspiring, and open to these the chief treasures of the world—those stored up in books."

For all his talk of books, Carnegie made sure that in most instances, he didn't give any. Once again, his intentions were summed up with admirable clarity by Mr. Dooley, who tartly observed that "a Carnaygie libry is archytechoor, not lithrachoor." And so it was. Funds were given only for the construction of a library building, *not* for the purchase of its contents, and even then only if the community promised to provide a site and devote annually at least ten per cent of the building's cost to its maintenance. As William Dean Howells pointed out, a Carnegie grant did not come without strings attached, and these represented a sizable responsibility: "He does not give feed with the gift horse; the rest must be supplied by its recipients, and there have not been wanting published estimates to show that eventually a public library is a public debt." On more than one occasion Carnegie was criticized for forcing an additional tax burden on towns and cities that could ill afford the expense. Nevertheless, he held firm in the conviction that he had struck a

how ambitious the program became. Between 1886 and 1898 Carnegie had provided funds for the

Now in "active" retirement and equipped with a surplus of funds, he wasted little time turning these

It is often observed that Carnegie exerted at best only a limited influence on library design in the

constituted the ideal library building by the time Carnegie began giving them away in such

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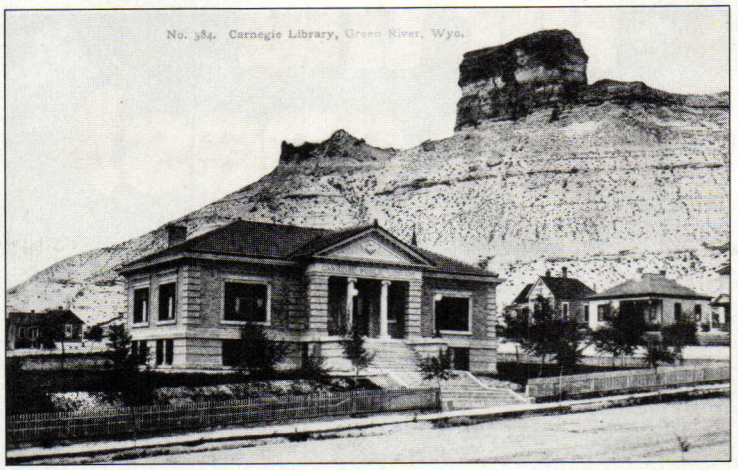
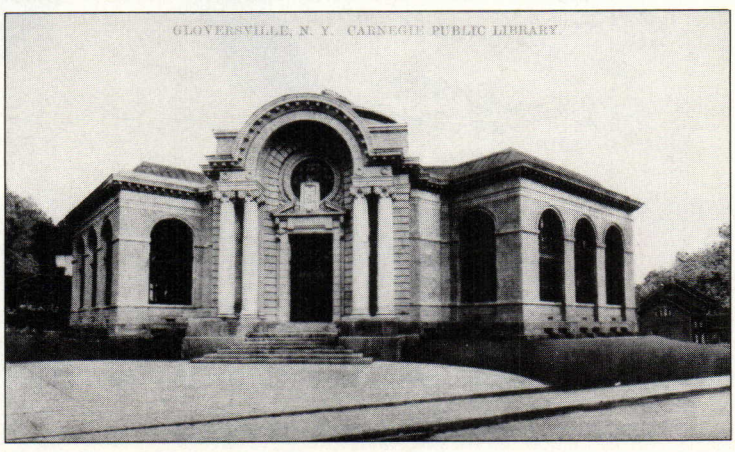
A Carnegie library sampler reveals geographic and stylistic diversity. Top to bottom: Green River, Wyoming (William R. Dubois, 1906-07); San Antonio, Texas (J. Riely Gordon, 1900-03); Wauwatosa, Wisconsin (architect unknown, 1905); and Gloversville, New York (Albert Randolph Ross, 1901-03).

The Cooper-Hewitt Museum





astonishing numbers. To appreciate the depth of disagreement between the professions, it needs only to be pointed out that during the late-1880s librarians reserved their most vitriolic criticisms for buildings that architects held in high regard: namely, Charles McKim's Boston Public Library, and H. H. Richardson's small library buildings in North Easton, Woburn, and Quincy. It was, in fact, in the context of a discussion about a "Richardsonian" building in New Orleans—the Howard Library by his successor firm, Shepley, Rutan & Coolidge—during the annual meeting of the American Library Association in 1888 that its president, Charles A. Cutter, was moved to remark that the architect was "the natural enemy of the librarian."

Things had to get better, and eventually they did. Over the next 20 or so years the situation improved considerably, and this was due in no small measure to the impact of the Carnegie grants. Librarians turned time and again to the problem of developing the most practical plans for library buildings of all sizes. The topic was endlessly discussed at state and national conferences and before local boards and library commissions. During this time, moreover, there emerged the architect who specialized in library design, and whose work often figured prominently in the books and journal articles devoted to the subject. Edward Tilton (whom Carnegie and Bertram consulted on occasion) and Albert Randolph Ross of New York; Patton & Miller of Chicago; Mauran, Russell & Garden of St. Louis; and Claude & Starck of Madison, Wisconsin, were among the most successful.

A certain standardization in plan and arrangement resulted from the process and was, in fact, seen as a desirable thing in itself. A small library might contain a lecture hall and service rooms in the basement, and on the main floor reading rooms for adults and children with a centrally located delivery desk from which both could easily be supervised. If there is, then, a "typical" Carnegie library, such as can be found in New Jersey, Wisconsin, California, and nearly every state in between, this was due neither to a lack of imagination on the part of client or designer nor to any specific requirements imposed by Carnegie himself (at least before 1911). Rather, it represented the most efficient model that informed opinion in the library and architectural professions could then produce.

So, too, is the "typical" Carnegie a classical building. True, it is not difficult to find examples of regional styles then in vogue, such as the Mission Style libraries of Santa Ana and Riverside, California, or the Prairie School designs of Claude & Starck in Minnesota and Wisconsin; nevertheless, with most of the Carnegie commissions coming after the turn of the century it was perhaps inevitable that the majority of these buildings would be informed by the passion for things classical that swept the country following the Chicago World's Fair of 1893. It was a logical style to use, as Walter Cook noted in explaining the design of the branch buildings of the New York Public Library, since it expressed a "public and municipal character." And that is apparently what many architects had in mind. In any event, they often had no choice in the matter, as some learned at a meeting of the Illinois Library Association in 1903:

"Let an architect suggest Romanesque or Gothic or Early French Renaissance or Byzantine, and he is, especially in the smaller cities, met with a cold, stony smile, plainly saying, 'You may think because I don't live in Chicago I don't know anything about architecture, but you may as well understand that I am quite up-to-date, and know what is the proper thing in library styles.' In fact, so arbitrary is this fad, that to submit a competitive design for a public library in any other style [than neoclassical] is practically fatal to an architect's chances."

In the end, however, it is difficult to characterize the Carnegie libraries as a group. Some were large urban buildings, monumental in scale, complex in plan, and intended to serve a number of functions; others were little more than one-room cottages. Some were conspicuous examples of the "school of show" looked on with such suspicion by Carnegie, Bertram, and the crusaders in the American Library Association; others were simple, utilitarian affairs, built not for display, but merely to hold books as cheaply and efficiently as possible. The program was so vast and the circumstances under which these buildings were designed so varied that perhaps it can only be said that they exemplify the extraordinary diversity of American architecture at the turn of the century and, of course, the equally extraordinary ambitions of their patron, Andrew Carnegie.

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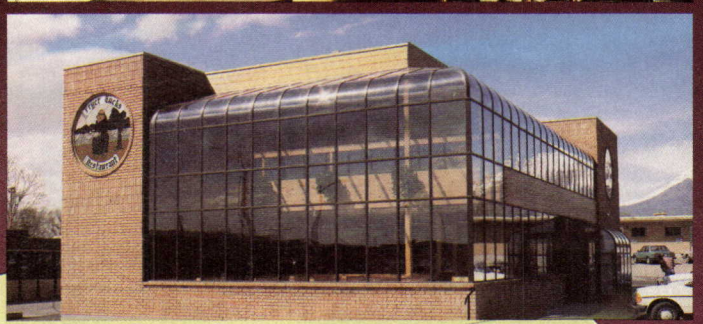

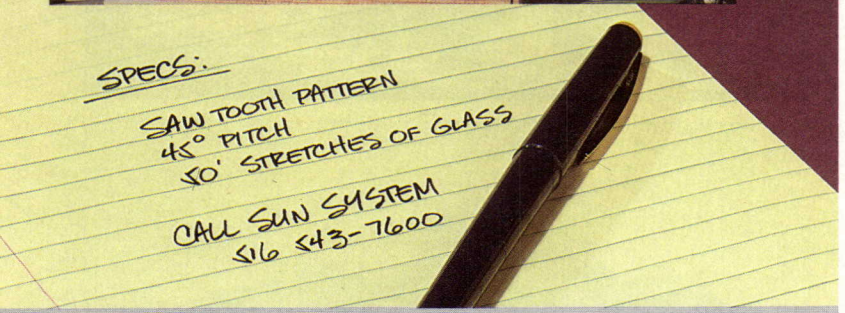

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Low rise, high speculation

By Deborah K. Dietsch

The suburban, speculative office building has never had much of an architectural reputation. While a few architects have come to romanticize its strip milieu, the vast majority of high-minded practitioners have spurned its developer-dictated, dollar-conscious requirements as outside the realm of design. An exception to this rule is the firm of Gwathmey Siegel and Associates, architects who view the building type as yet another chance to apply their fine-tuned formal principles in overcoming its spatial, programmatic, and budgetary limitations.

Over the past decade, the firm has been involved with over a dozen such suburban projects, the majority of them designed for the Evans Partnership, a New Jersey-based developer/builder. "I think that this building type presents itself as a limited proposition," remarks Robert Siegel, adding, "but it is one of the few opportunities to make verifiably efficient architecture." Since designing their first spec office complex prototype in 1975, the architects have refined the approach to the building type into a highly disciplined process, discovering that "its fast-track scheduling has helped with the organizational decision-making in our other types of work," according to Charles Gwathmey.

The four suburban office buildings that follow embody the rigorous planning and design that have become the firm's Modern signature, displaying a small-scale sensitivity to materials and detailing often lacking in spec buildings. As proof of their formal and functional appeal, two of the projects featured in this study—the AT&T headquarters in Parsippany, New Jersey and IBM-Kingsbridge offices in Montvale, New Jersey—were originally constructed as multitenant spec buildings for the Evans Partnership and have subsequently attracted single corporate users. The other two projects individually represent opposite ends of the building type's spectrum: the low-rise, user-specific Triangle Pacific Corporation headquarters located in suburban Dallas, and First City Bank, a 12-story, multitenant structure sited just off a major Houston highway.

Additional credit for the quality reflected in these projects must be given to their developer/builders. Their insistence on creating a distinctive image through a high level of design and craftsmanship indicates that the architectural consciousness of the suburban developer and construction industry is being raised. States Michael Schure of the Evans Partnership, "There's a moment when the developer has to move beyond the hard-sell to believe in design integrity and risk trying it."

Deborah K. Dietsch is a freelance writer based in New York City.

Urban sophistication in a suburban setting

Partners Charles Gwathmey and Robert Siegel have long supported the interdisciplinary conviction that they are capable of designing almost anything. The variety and scale of their work proves it, from the well-publicized Hamptons houses and campus/institutional buildings to interiors, furniture, and tableware. A long-standing and pragmatic addition to this list is the firm's ongoing design of suburban speculative office buildings.

"When we started designing spec office buildings ten years ago," explains Gwathmey, "we noticed that most of the existing examples of the type tended to be gyrated forms with a visual gimmick that fouled up the net-to-gross floor area ratio." To maximize the leasable floor area and elevate what the firm refers to as the building type's inherent "economy of means," Gwathmey Siegel has adhered to simple plans with efficiently positioned service cores for each of their suburban projects. This allows the architects to do what they do best: organize the parti around a strong, site-specific circulation system and turn their design attentions to creating a public image from a rich palette of materials and detailing.

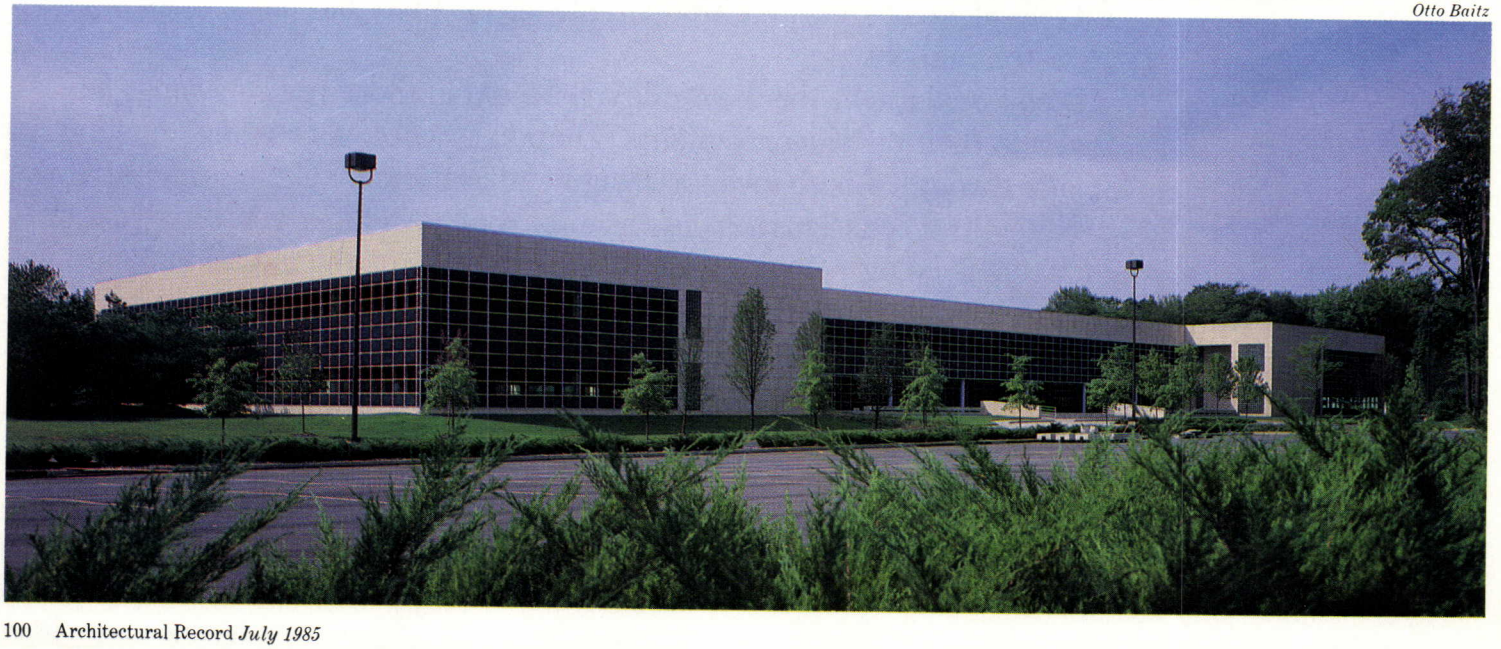
In orienting each building to its site, the architects acknowledge the parking lot as a necessary part of the entry sequence, and employ urban spatial devices to create transitional zones between the parking and the building. "The only chance you really have to make architecture in these buildings is in the space between the car and the front door, and a section change in the lobby," notes Siegel. Public procession is stressed, with landscape playing an important architectural role in formally reinforcing the spatial sequence. Comments Siegel, "We tried in every case to avoid that suburban syndrome of entering your house through the backyard."

To illustrate his point, the AT&T headquarters in Parsippany, New Jersey (photo top of opposite page) is entered from the parking lot through a columned arcade, central courtyard and finally into a public lobby at the far end of the building. At the IBM-Kingsbridge office building in Montvale, New Jersey (photo below), the building is entered from the parking lot through a raised plaza and arcade that border its stepped-back ground floor. An arcade also links the parking garage of First City Bank in Houston to its lobby (photo bottom right of opposite page). And at the Triangle Pacific Corporation in Dallas (photo bottom left of facing page), a ceremonial entrance is achieved by placing the front door at the top of a grand, outdoor staircase that is flanked by a reflecting pool. Once inside these buildings, their lobbies "struggle to reach the sky," according to the architects, designed to bring the outside in, with exterior materials used to define their often full-height volumes. Transparent walls (AT&T), skylights (IBM), glass block (Triangle Pacific) and clerestories (First City, Triangle Pacific) emphasize a quality of openness in these public spaces and introduce daylight to the office interiors.

The elevations of the four buildings in this study reflect Gwathmey Siegel's continuing concern with outwardly demonstrating the functional logic of an internal layout. A consistent material palette of glass curtain wall and travertine is blended in varying degrees to simultaneously convey the large-scale graphic of a roadside structure and a smaller, more human scale at pedestrian level. In reacting to the suburban orientation of the spec building, a "universal" curtain wall grid dominates, while travertine is relied upon to convey low-scale permanence. "Because of their lack of specific content, spec buildings can be rendered as abstract objects," states Gwathmey. As a result, the largest multitenant structures—the AT&T headquarters (originally designed for the Evans Partnership as a spec building) and First City Bank—project the most ambiguously scaled images. The dark gray, uniformly gridded skin of AT&T attempts to reduce its size as a colorless field of indeterminate scale, while the curtain wall of First City is modulated with colored banding of glass to create the illusion that it stands taller than its 12 stories. The smaller scale buildings, on the other hand, reveal more of the recognizable, volumetric idiom of Gwathmey Siegel. The IBM-Kingsbridge project, although partially clad in the universal grid of AT&T, assumes a solid profile through its travertine frame, stepped curtain wall front facade and the brise-soleil that distinguishes its south elevation. As the only single-tenant office building included in this study, the Triangle Pacific Corporation headquarters is understandably designed with the most client-specific idiosyncracies. Expressed as a composition of solids and voids characteristic of the firm's residential architecture, its stair towers are pulled away from the low mass and the entrance is recessed from the building's front elevation.

Gwathmey Siegel acknowledge the economic and scheduling constraints placed upon them by their developer clients and admit that each spec project presents an esthetic challenge, solved with the know-how from their high-style projects. But they are quick to point out that both types of work mutually support each other: "The discipline of each process adds to our over-all design information kit," says Gwathmey. It also allows the architects to expand their interconnected design approach and to practice what they preach in built, rather than theoretical, form. As Siegel points out, "These buildings are negotiable tools for the developer, but for us, they're architecture."

Otto Baitz



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Richard Payne

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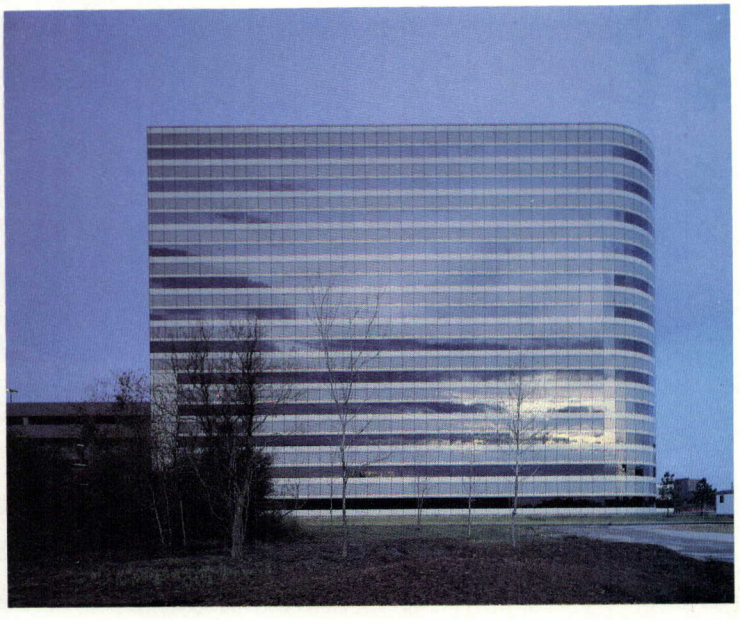
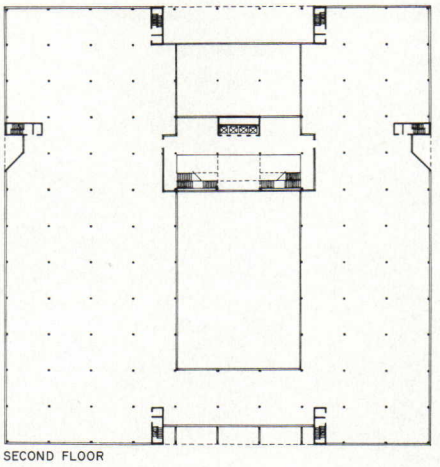
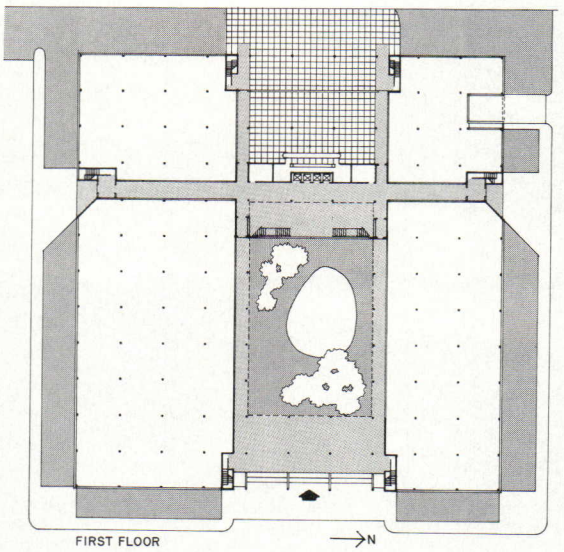


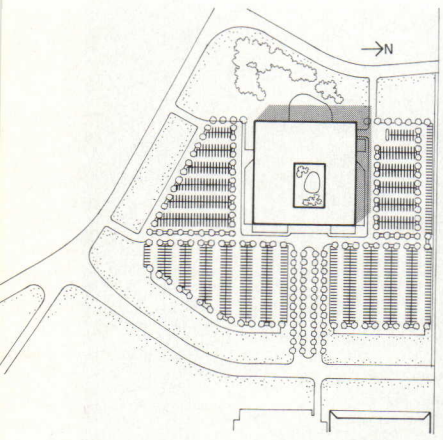
The Evans Partnership for AT&T
Parsippany, New Jersey
Gwathmey Siegel & Associates
Architects

As one of the earliest office buildings designed for the Evans Partnership, the AT&T headquarters sets the tone for the site strategies and material palette of Gwathmey Siegel's subsequent suburban projects. The 300,000-square-foot building is located within a northern New Jersey office park occupied by low-rise developments, including the Evans Partnership's own headquarters, a one-story, travertine-clad structure designed by Gwathmey Siegel in 1977. The doughnut-shaped plan of the building with grassy courtyard (plans at right) elaborates an earlier prototype for the developer, maximizing perimeter offices.

Although the insistent curtain-walled exterior of AT&T doesn't instantly evoke the most contextual of feelings, the architects claim it was designed in response to the scale and character of the neighboring Evans headquarters in a reversal of its travertine and glass. The dark gray glass and black gridded skin of AT&T attempts to reduce the scale of its three stories, to make it appear as a one-story structure, "a colorless background against which you read the sky and the trees," notes Siegel. The architects, however, couldn't resist some notation of the internal layout with graphic devices: panels of light-colored travertine define the stair towers with porthole windows and entrance arcade (photo, opposite page). Inside the courtyard, travertine and strip windows transform the ambiguous scale of the exterior into a pedestrian-oriented, three-story cloister. At its far end, a transparent, glass-walled lobby brings the light of the courtyard inside, serving as the circulation hub and single security point for the side entrances.

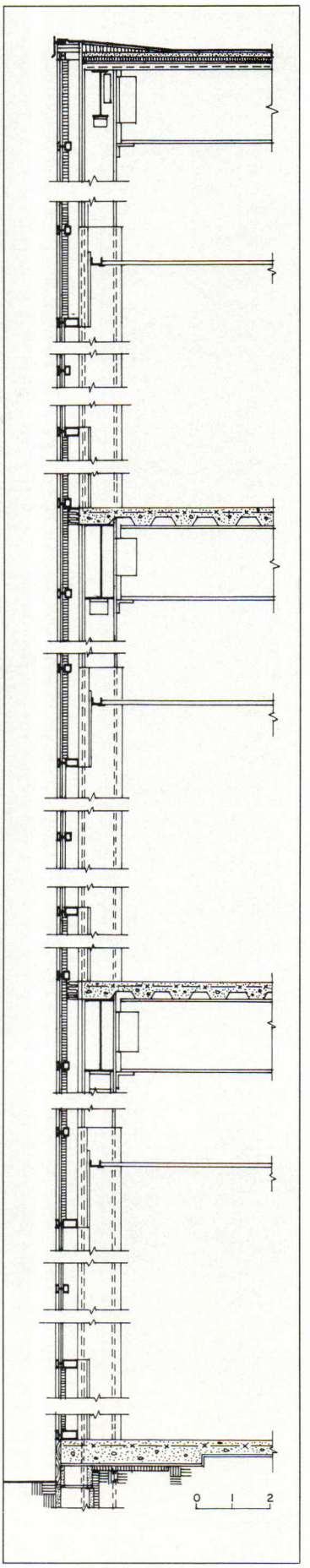






The AT&T headquarters is entered from a formally planted drive, positioned on axis with a central courtyard in contrast to the wooded, informal landscape bordering the dining terrace behind the building (site plan, bottom left opposite page). Originally designed to be occupied by multiple tenants, the floor plan is organized with a layered, central zone of circulation: entrance arcade, courtyard, and lobby, which also receives traffic from the side entrances and adjacent cafeteria (plans, left opposite page). Close-up view of entrance arcade (photo below) reveals the planar building envelope. Tied-back columns and metal ceiling are recurrent elements of the architects' suburban projects.

Otto Baitz photos



Stepping up from the coolly gracious entrance arcade (photo above), the stark, dark skin of the exterior is transformed into a light-filled, marbled and human-scale cloister. Its grassy center space, as seen from the lobby (photo opposite page) is planted "in an Oriental way with only trees, carefully placed as objects," says Gwathmey, an attitude that reflects the firm's meticulous attention to landscape as architectural form. The three-story, transparent window grid, detailed in a manner similar to the exterior perimeter curtain wall, extends the courtyard inside to imbue the lobby with a sense of the outdoors. The cascading forms of the open stairs at either end of its daylit space are expressed in travertine on the outside to meet the flanking walls of the courtyard. Framing the lobby's window wall is an exposed beam and column construction that articulates the building's bay module and mirrors the entrance arcade. The three-story typical wall sections (right) are detailed with mullions flush to the vision and spandrel panels, and constructed with standard concrete-over-metal deck floor slabs.

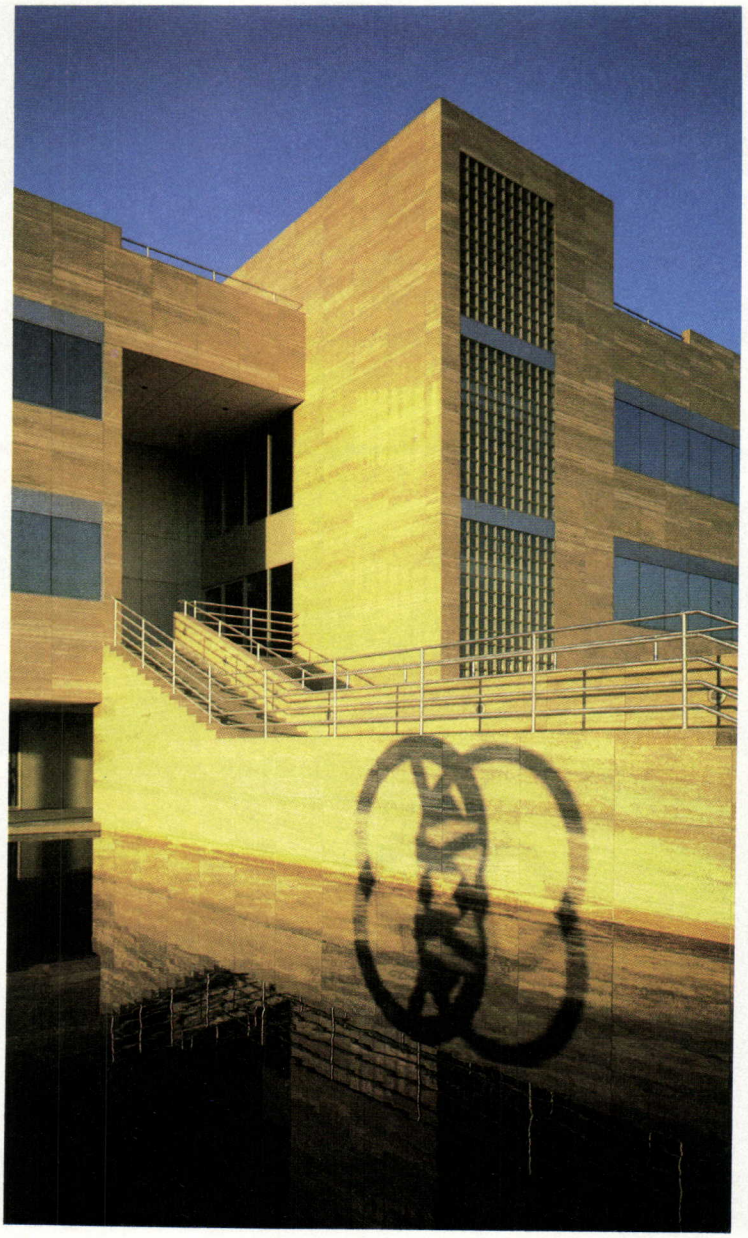
The Evans Partnership for AT&T
Parsippany, New Jersey
Owner/developer:
The Evans Partnership
Architect:
Gwathmey Siegel & Associates Architects— Richard Gould, associate-in-charge; Mark Simon, project architect

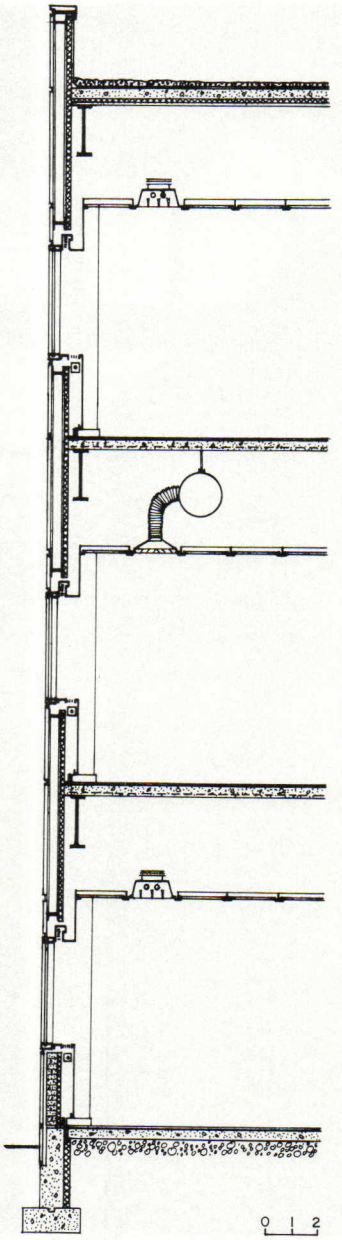
Associated architect:
Rotwein & Blake
Engineer:
Rotwein & Blake
General contractor:
Evans Shure Construction Corporation

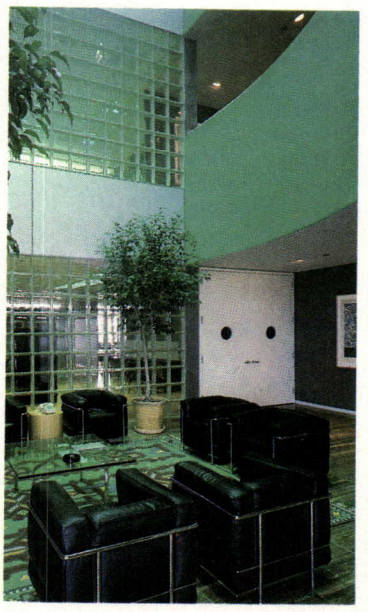
Triangle Pacific Corporation
Dallas, Texas
Gwathmey Siegel & Associates
Architects

"This is not a regional building," maintains Wayne Grimes of Triangle Pacific, who supervised the construction of the corporation's headquarters located in a northern suburb of Dallas. What he refers to is the fact that the 60,000-square-foot structure happens to be one of the few in the area built from stone—honed and filled Italian travertine marble, no less—and that its construction required strict adherence to the modular standards of Gwathmey Siegel's design.

As a corporate headquarters, Triangle Pacific reflects a more client-specific plan and image than the spec buildings in this study. But the decision by the corporation to hire Gwathmey Siegel was based on the firm's track record with the Evans Partnership, and like the spec buildings, it is organized around a highly disciplined circulation system. The procession begins from the parking lot up a grand staircase through a "front porch," and into a three-story, clerestory-lit lobby, which brings the outside inside with its glass block and travertine finishes (photo below and axonometric opposite). "The way the circulation elements are rendered, the headquarters looks like a public building," comments Siegel. He also acknowledges that it incorporates a hint of the cubistic idiosyncracies of the firm's residential designs, including an exposed cafeteria at its base, recessed entrance, and half-rounded fire stair enclosures at either end of the building (photo opposite). Yet, these sculptural expressions are kept to an unpretentious minimum. The mass of the building remains tautly horizontal, emphasized by strip windows. Concludes Gwathmey, "It creates a very calm presence on the landscape."





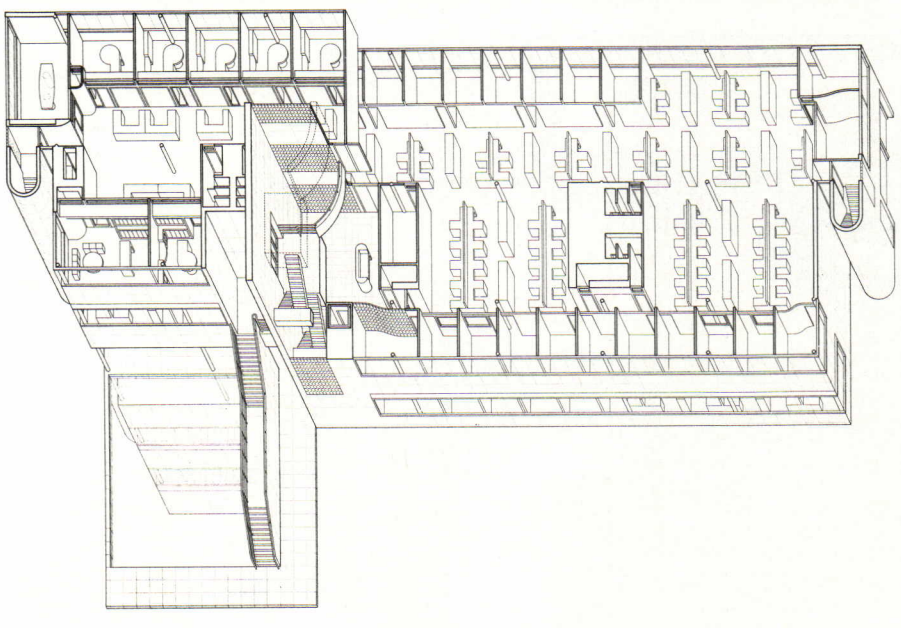


The low profile of Triangle Pacific is interrupted at the entrance by a vertically extended stair tower, recessed portal and outdoor staircase (top photo opposite). Its plan emphasizes the horizontal, organized into zones of perimeter private offices and central open work areas, but its regularized section (detail opposite page) is penetrated by a three-story atrium (axonometric drawing below).

Triangle Pacific Corporation
Dallas, Texas
Owner:
Triangle Pacific Corporation
Architect:
Gwathmey Siegel & Associates Architects—Jacob Alspector, associate-in-charge; Glen Fries, Karen Jacobson, Gustav Rosenlof, project team

Engineers:
Goulas/Shaw, Inc. (structural); Arjo, Inc. (electrical/mechanical)
General contractor:
The Longcrier Company

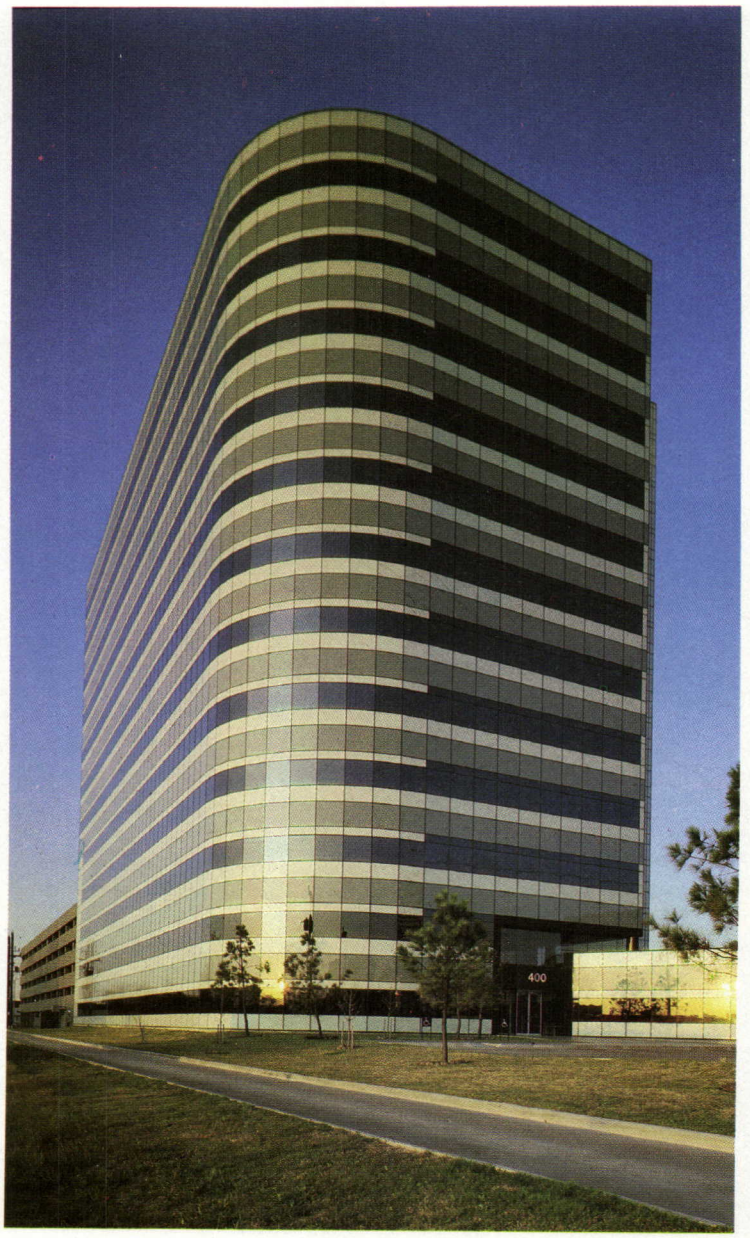
Richard Payne photos

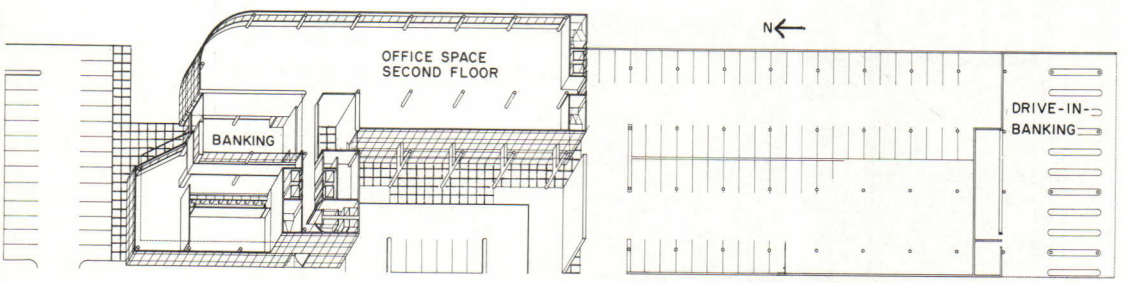


First City Bank
Houston, Texas
Gwathmey Siegel & Associates
Architects

In reconciling the different functions of this corner site building, Gwathmey Siegel chose to sheathe its separately articulated volumes with a curtain wall that subtly changes pattern and color. When viewed at a distance, the First City Bank building proves the architects' point that the abstract quality of a curtain wall works from a highway vantage point: its horizontal, bluish-gray banding almost melts into the horizon. "This skin is intended to operate on many scales and takes on a mosaic quality with changes in light at various times of the day," explains Siegel. The three colors of the curtain wall are coded according to the corresponding function inside: white spandrel glass, light gray glass representing the structure, and dark gray vision glass at window height (wall section, following spread). As a graphic composition, the skin performs a perceptual figure/ground reversal "like a photographic negative," according to Gwathmey. This illusion is emphasized by the change in pattern from the curved northeast facade of the building's 12-story office block (right photo, this page) to the west facade of the service core tower (photo opposite page).

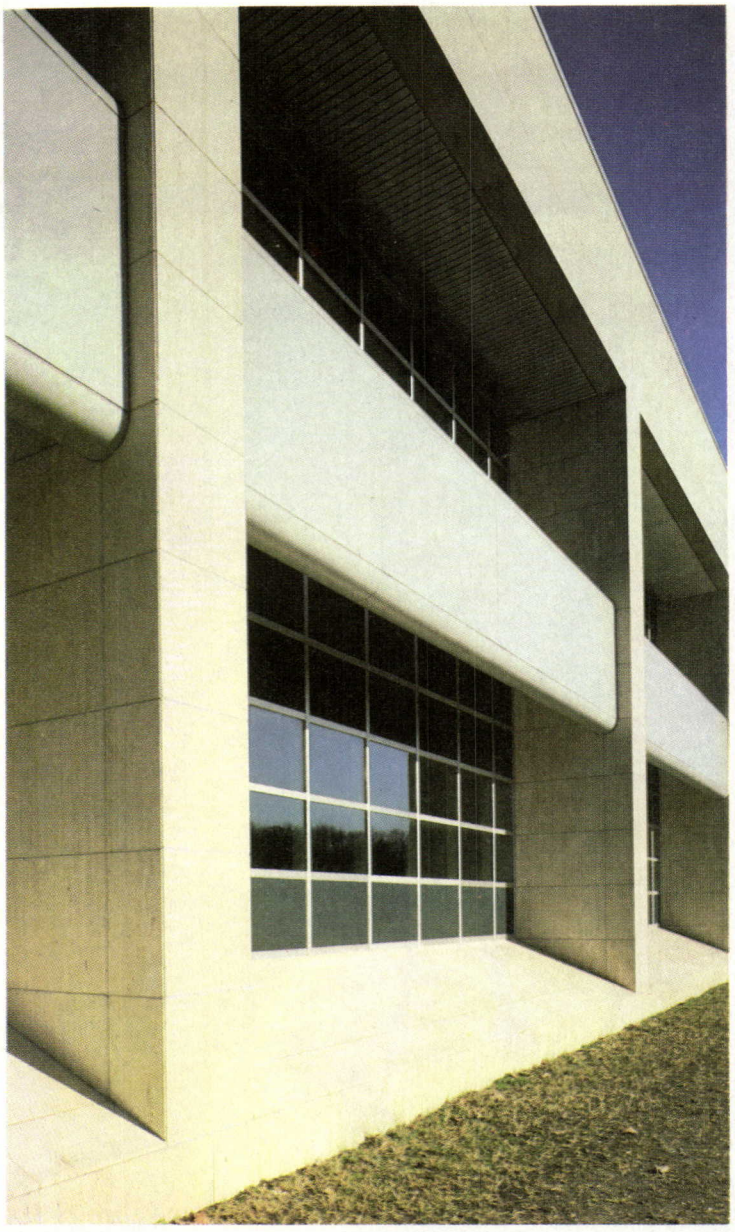
The flexible, multitenant plan of the office block is achieved by divorcing the stair/elevator/service core tower from the 20,000-square-foot office floors (axonometric drawing below and photo opposite page), and relegating the 1 1/2-story bank to a position adjacent to both the service core and office block. As a result, the elevator lobby (photo below) is accessible from either the bank or from the parking garage through a two-story arcade (photo opposite page) and allows for expansive, two-way vistas from every floor.

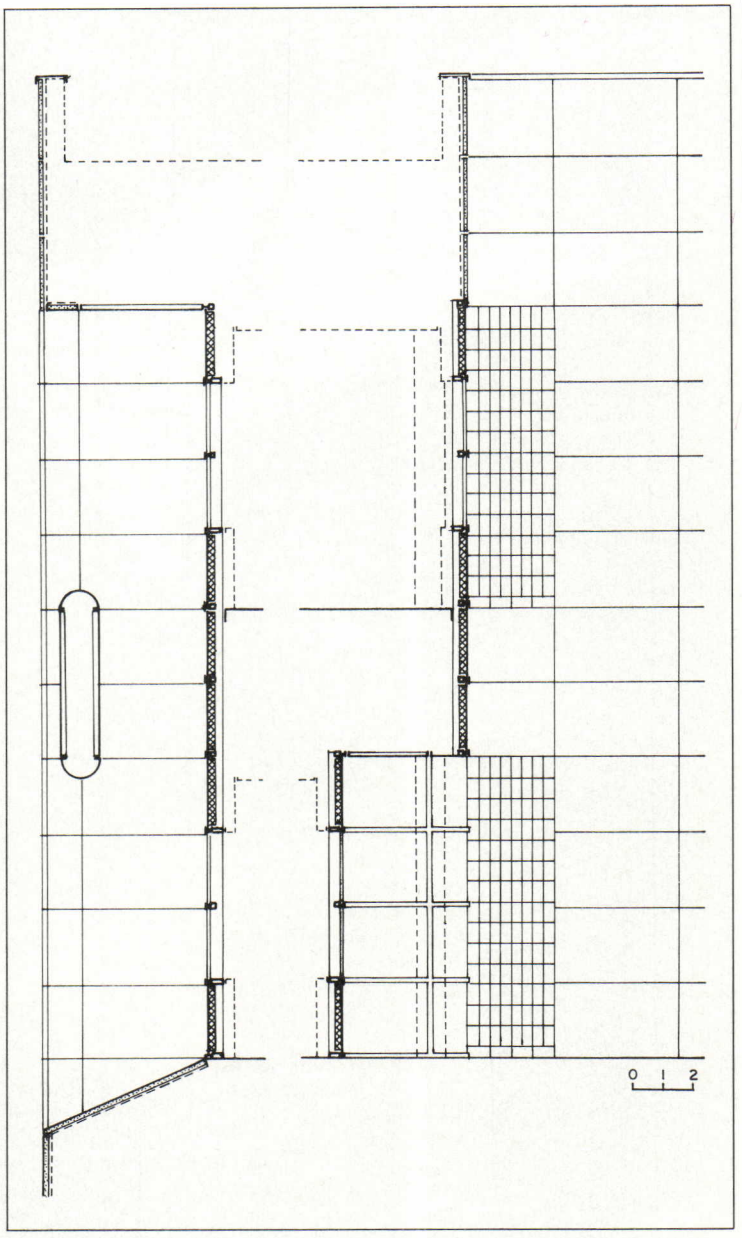




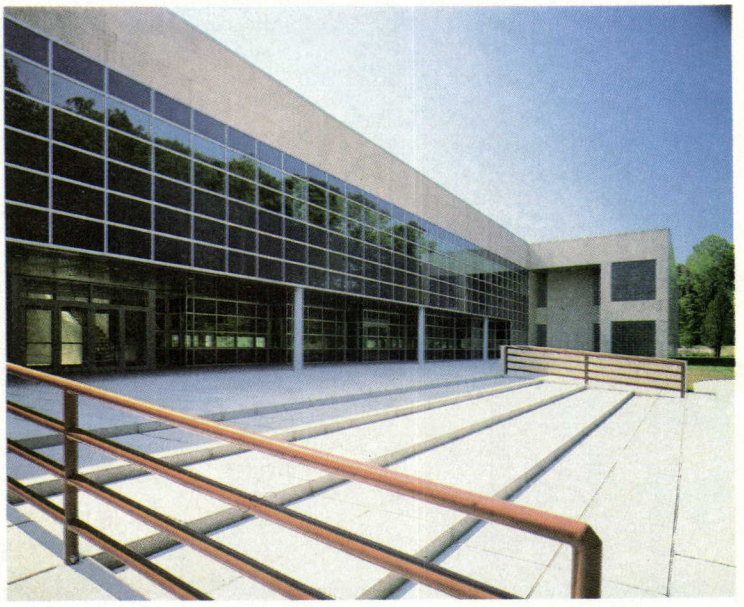
The rectilinear plan of IBM-Kingsbridge is organized around the circulation hub of the central lobby, which provides access to the southern portion of the building on the second floor (plans opposite page). The lobby is entered from a raised plaza (top photo opposite page) through an arcade, faced with an aluminum soffit and stepped-back, aluminum gridded curtain wall (middle photo opposite page). The plaza is terminated at either end by service cores, indicated by glass block. Inside the skylit, double-height lobby, the travertine of the exterior is used to line its floors, walls and staircase with an air of monumentality and permanence not commonly found in spec buildings (photo below). Mounted on the staircase is the Gwathmey Siegel designed "Soleil Couchant" tapestry.

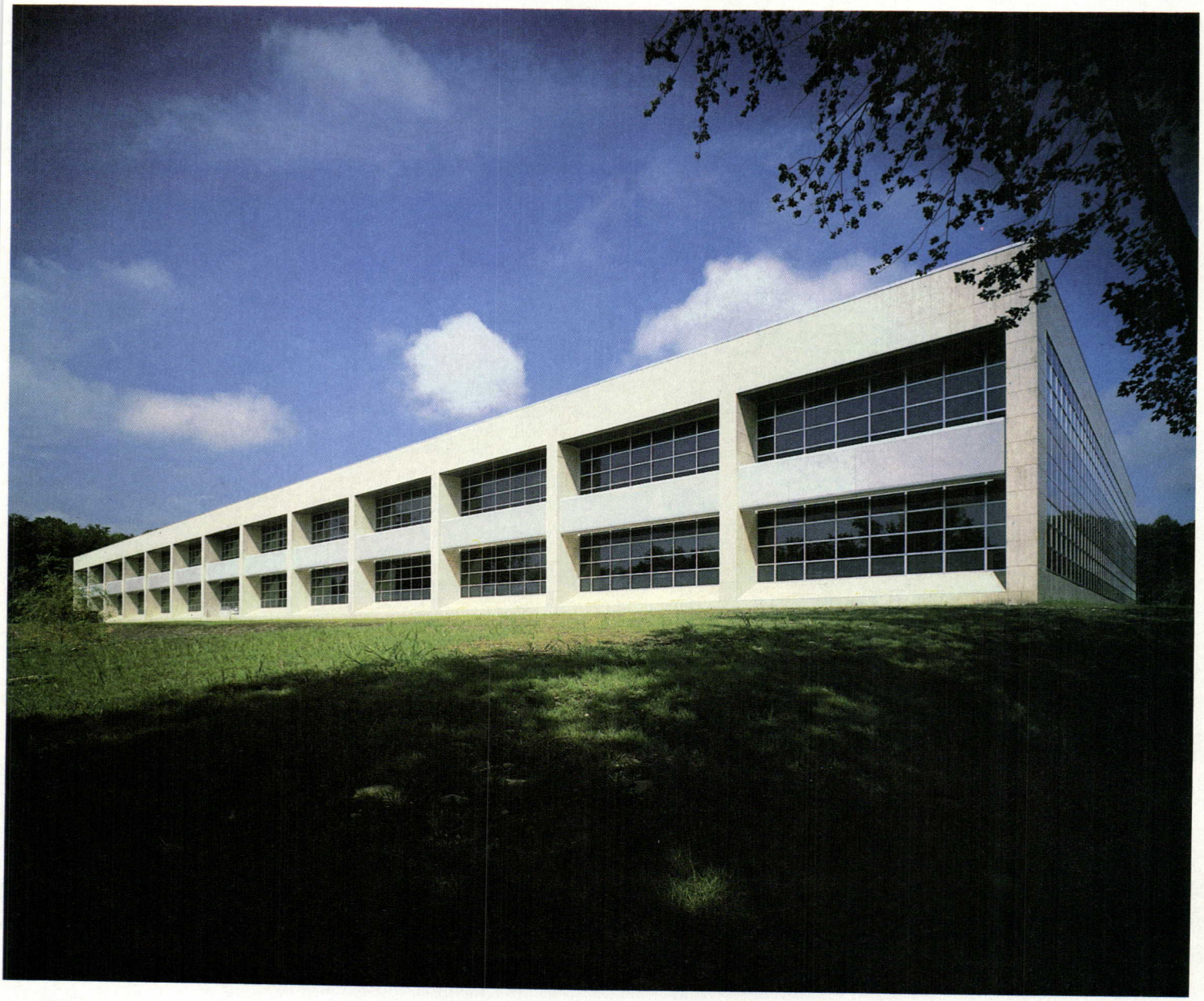
Otto Baitz photos





IBM-Kingsbridge is constructed in the ubiquitous Gwathmey Siegel suburban palette of light travertine and dark curtain wall. In this case, the skin is framed by an aluminum grid, and positioned to emphasize planes or volumes in differentiating front from back. On the front (north) elevation, the skin steps back under the second story (right wall section and bottom right photo) and wraps the corner on the east and west sides of the building. The back (south) elevation (photo opposite page) is imbued with spatial depth by recessing the skin behind travertine piers, sloped base and aluminum sun screen (left wall section and photo above). When viewed at an angle (photo opposite page), the curtain wall appears as a separate glass box, pulled away from the travertine frame.



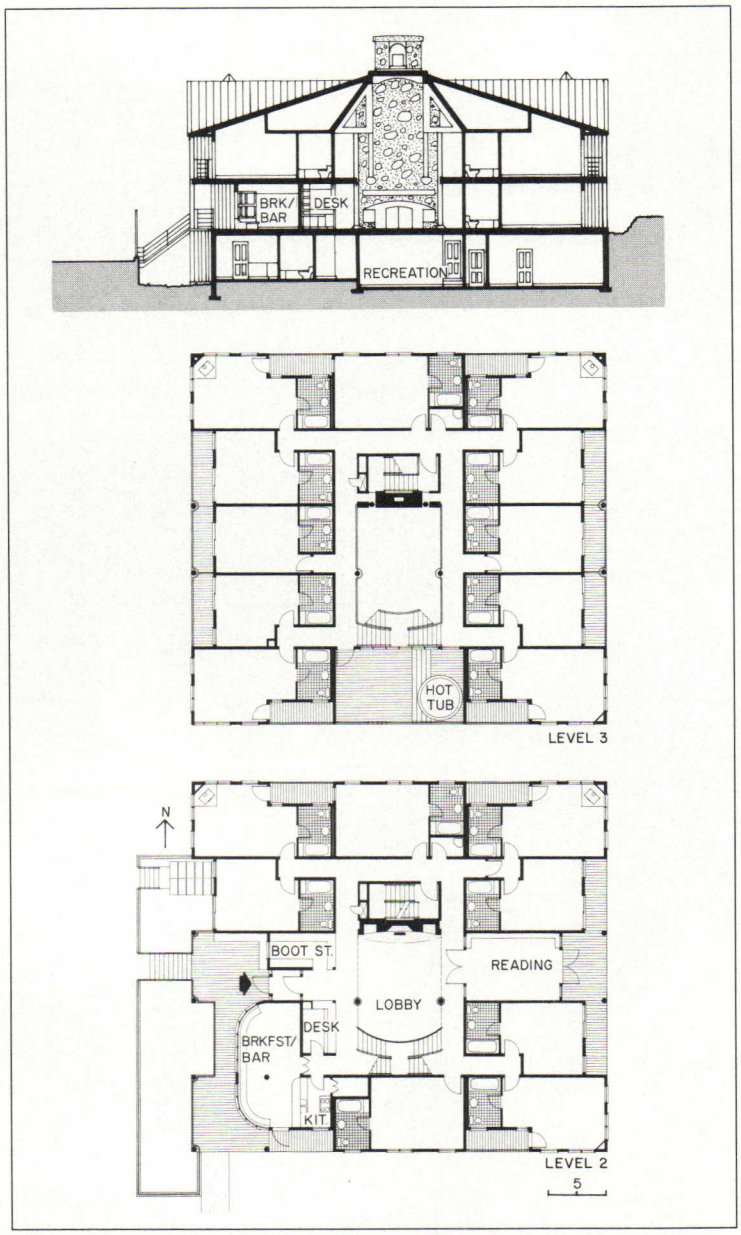


IBM-Kingsbridge
Montvale, New Jersey
Owner/developer:
The Evans Partnership
Architect:
Gwathmey Siegel & Associates Architects—Richard Gould, associate-in-charge
Associated architect:
Rotwein & Blake

Engineer:
Rotwein & Blake
General contractor:
Evans Shure Construction Corporation

Wish you were here . . .

Hotel Lenado
Aspen, Colorado
Harry Teague Architects,
Architects



Architect Harry Teague is proud of his collection of postcards of old hotels. "I have at least 50 of them," he told me, "from the St. Francis Hotel in San Francisco to the Coronado in San Diego." And some of his best cards are from Colorado. Long before skiers began to arrive, the Rocky Mountains drew hardy vacationers who stayed in simple hotels and boarding houses which, in appearance at least, were not unlike Teague's Hotel Lenado. But this hotel, named after a nearby logging town, is not exactly simple. Recently opened, it is currently the best place to stay in Aspen. Except for the town's famous Hotel Jerome, built in the early 1890s during Colorado's silver mining era and still popular, this prosperous resort has until now offered its visitors little but poorly designed and constructed Swiss-chalet-type motels and condos. The best buildings in town continue to be the old ones, and among the most interesting of these are the little Victorian houses that are neighbors of the new hotel.

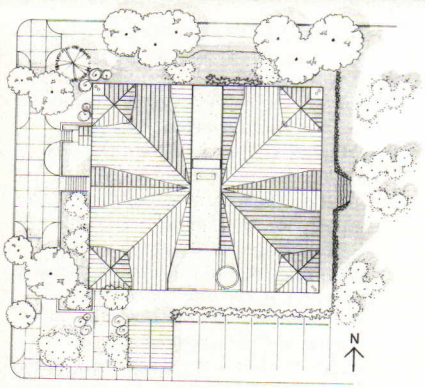
With these dwellings in their vision, the old hotels in their memory, and the local zoning ordinances in hand, Teague and his clients, whom he calls a "romantic" group, began to plan. Why romantic? "Because we weren't sure at the beginning that a 19-room hotel, which the local ordinance said it had to be, could make money." Developing the program together, one of the most important decisions they made was against the typical Aspen ski lodge small-lobby, long-corridor plan. "We wanted to get the circulation out of the halls and into a space where you meet people."

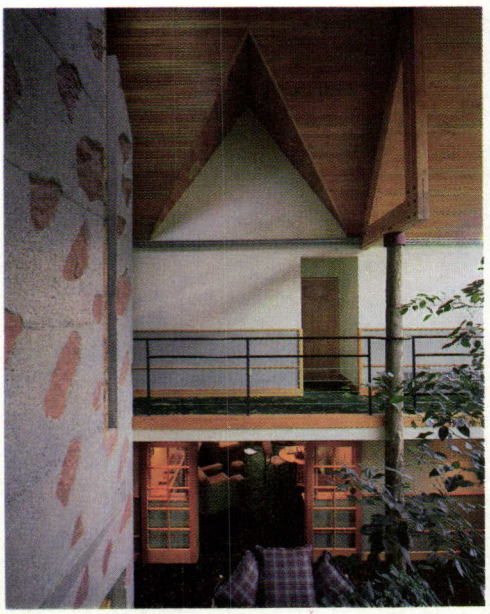
The solution was to organize the 19 rooms and their corridors around a two-and-a-half-story fireplace and lobby with an open stair connecting the two levels. Conference facilities, employee housing, and service rooms are below the lobby level in the basement. An underground passage and stair connect the service areas to a separate service structure. The building is divided into residential-sized elements on each elevation in recognition of the scale of the houses across the streets.

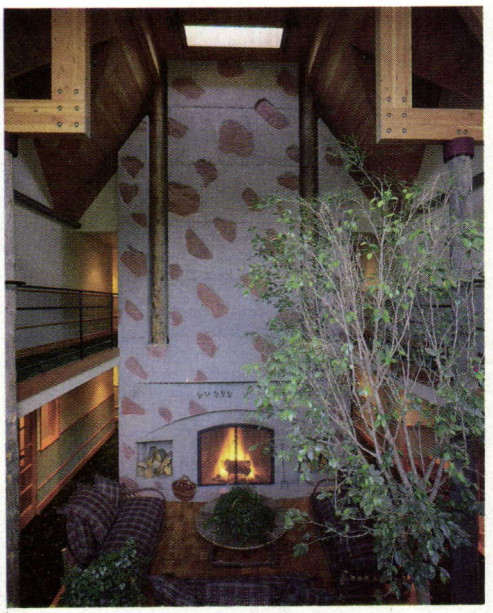
Teague has used indigenous materials wherever possible, and the interiors reflect the work of local artists and craftsmen. Most of the furnishings are framed of local apple and willow tree trunks, unplaned. Such beds, tables, chairs, and sofas seem as right for the Lenado as they were for the turn-of-the-century hotels for which they were originally designed. Visitors to Aspen seem to like the new hotel and to understand the feelings about the Old West that it signifies. It is solidly booked in all seasons and the owners are doing very well financially. Since they don't serve food (except breakfast), it has to be the architecture. It is to be hoped, for Aspen's sake, that future lodge and condo builders will take notice. *Mildred F. Schmertz*

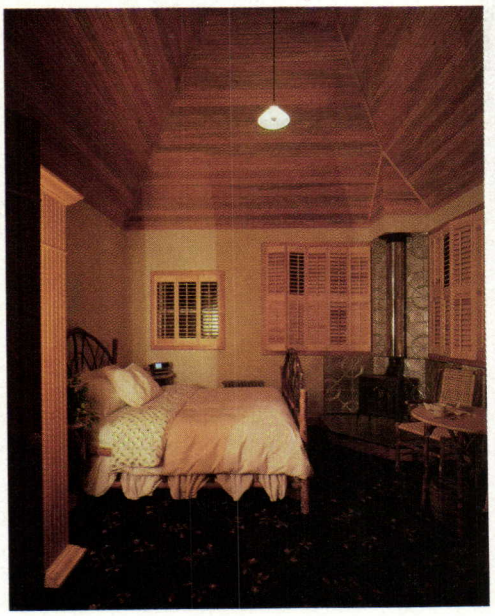
©Timothy Hursley photos

To achieve the maximum number of rooms, the Hotel Lenado almost completely fills the volume allowed by the local zoning ordinance, and is therefore basically a box. The entrance facade (below) reveals architect Teague's compendium of devices to veil reality, transforming the little hotel into a suitable neighbor to the small-scaled and intricate Victorian houses across the surrounding streets. (One such can be seen to the right of the photo opposite page.) Teague has ingeniously complicated this facade by creating a sunken terrace at the basement level with a small canopied entrance leading to this service facility. The main entrance stair bridges this void, leading to a deep porch overhung by third-story bedrooms and balconies. As the roof plan below indicates, Teague has artfully pitched it as steeply as the volumetric requirements of the interior would allow, getting his full effect from a tetrahedral tower at each corner, two gables on the east-west axis and two mansard pitches on the north-south. Chimneys at three of the four corners plus one near the center make the roofscape even more intricate.









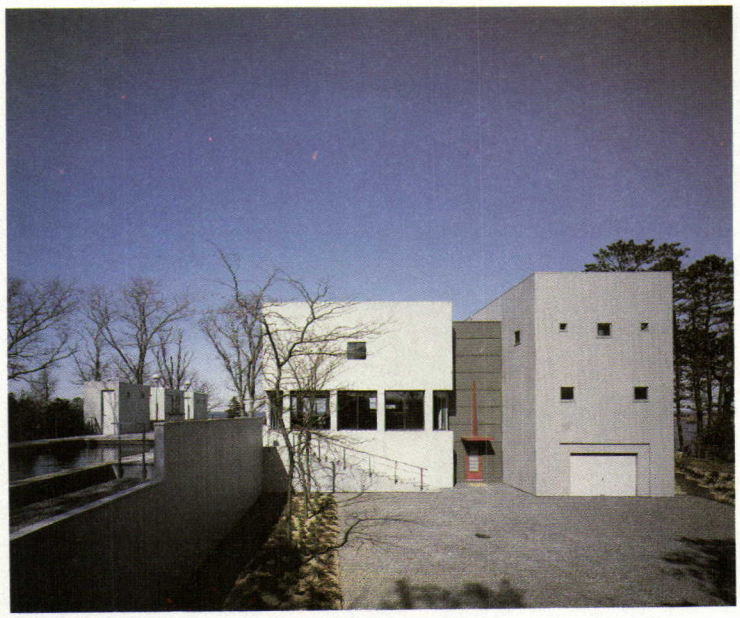
The wood poles used as ornament on the chimney breast (top right), but as structural members elsewhere, are from Lenado. The trees were actually cut and hand-carried out of the forest by Teague and eight friends, among whom were the hotel's owners. The fireplace was poured in several forms. Teague, acting as mason as well as logger, laid the local red sandstones himself, picking them for shape and color and positioning them in the form. The lounge area is spanned by what appear to be trusses with the central bottom chord missing. This member would have impeded the view through the great window (photo opposite), and reduced the sense of space and height in the lounge (section preceding page). This not-quite-truss rests upon shear walls designed to compensate for the absent chord. Because roof pitches vary, so do the volumes of the upstairs bedrooms (above). The pressed steel ceiling in the breakfast room (above right) has been designed by its manufacturers for big spaces. Used by Teague in a small room, its pattern, usually innocuous, becomes bold ornament.

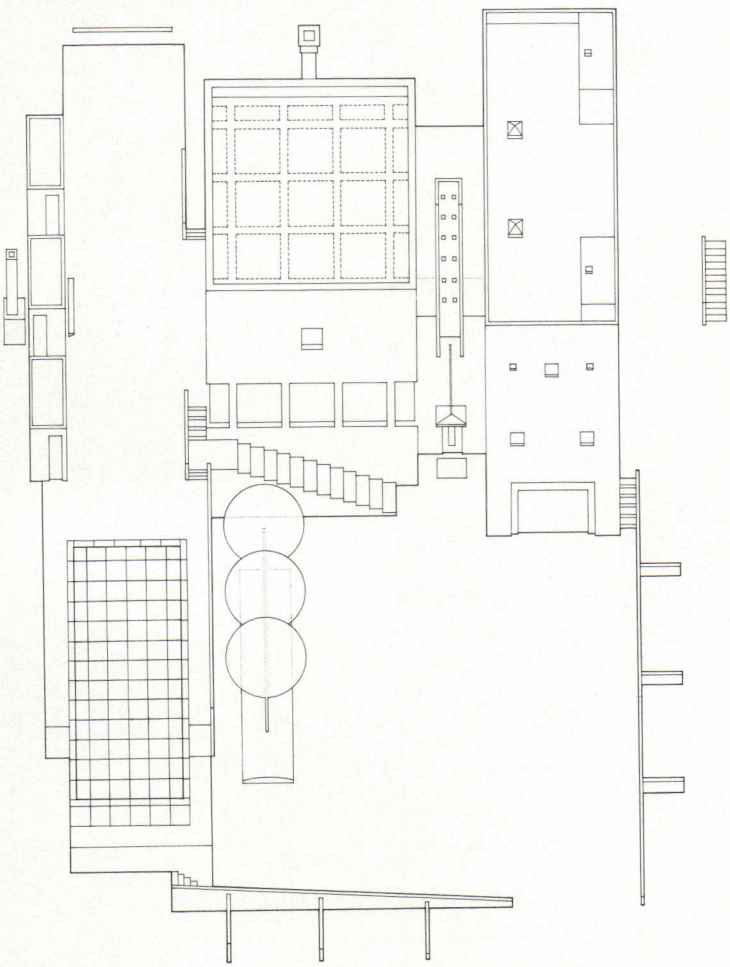
Hotel Lenado
Aspen, Colorado
Owners:
Long Run Partnership—Elizabeth Jones, Daniel Delano, Frank Peters
Architect:
Harry Teague Architects—Ron Robertson, project assistant; Denis Cyrus, Marcia Weese, project team
Engineers:
Collins Engineers, Inc.—Clayton Hayes, engineer-in-charge
Interiors:
Karen Day Hudson
General contractor:
Rocky Mountain Structure

Private residence
Southport, New York
Tod Williams and Associates, Architects

An outpost in exurbia

© *Paul Warchol photos*



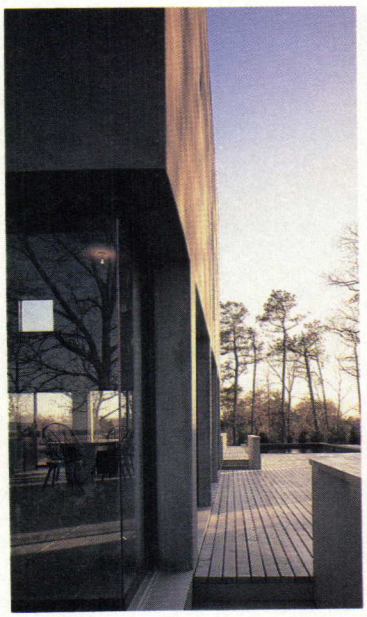


"It's a jungle out there," says the owner of this Long Island villa, as he looks out the window of his Manhattan apartment. "We wanted a refuge where our children and grandchildren and friends could come and be with us for some quiet time." Like many New Yorkers, the harried businessman and his wife have found themselves cultivating their garden getaway in a once-rural landscape populated by other city-dwellers seeking the best of available worlds—at a price. The one-acre setting for their weekend (and eventual retirement) home combines the assets of idyllic views of shoreline and woodland to north and south with the potential liability of close neighbors (present and future) on lots to the east and west. Architects Tod Williams and Associates have devised a complex esthetic order that studiously reconciles age-old ideals of country life with present-day contingencies of exurban development. Fortunately, perhaps, for project designers Robert McAnulty and Tod Williams, the site is in a relatively unfashionable and undeveloped corner of Long Island's South Fork, where the immediate surroundings begged no localized "contextualism." Though Williams and McAnulty supply a hint of regional vernacular in gray wood siding and a massive brick chimney, they have eschewed overt remembrances of quaint Shingle Style gables poking above seaside hedgerows; and despite the hard-edged geometry of their massing and elevation, these austere pavilions exude an air of confident repose that sets them apart from the driftwood modernism scattered frenetically over the nearby Hamptons dunes. This is not a house divorced from history, but its lineage ranges far afield, with special kinship to the work of Louis Kahn and the neorationalism of Italy and Switzerland.

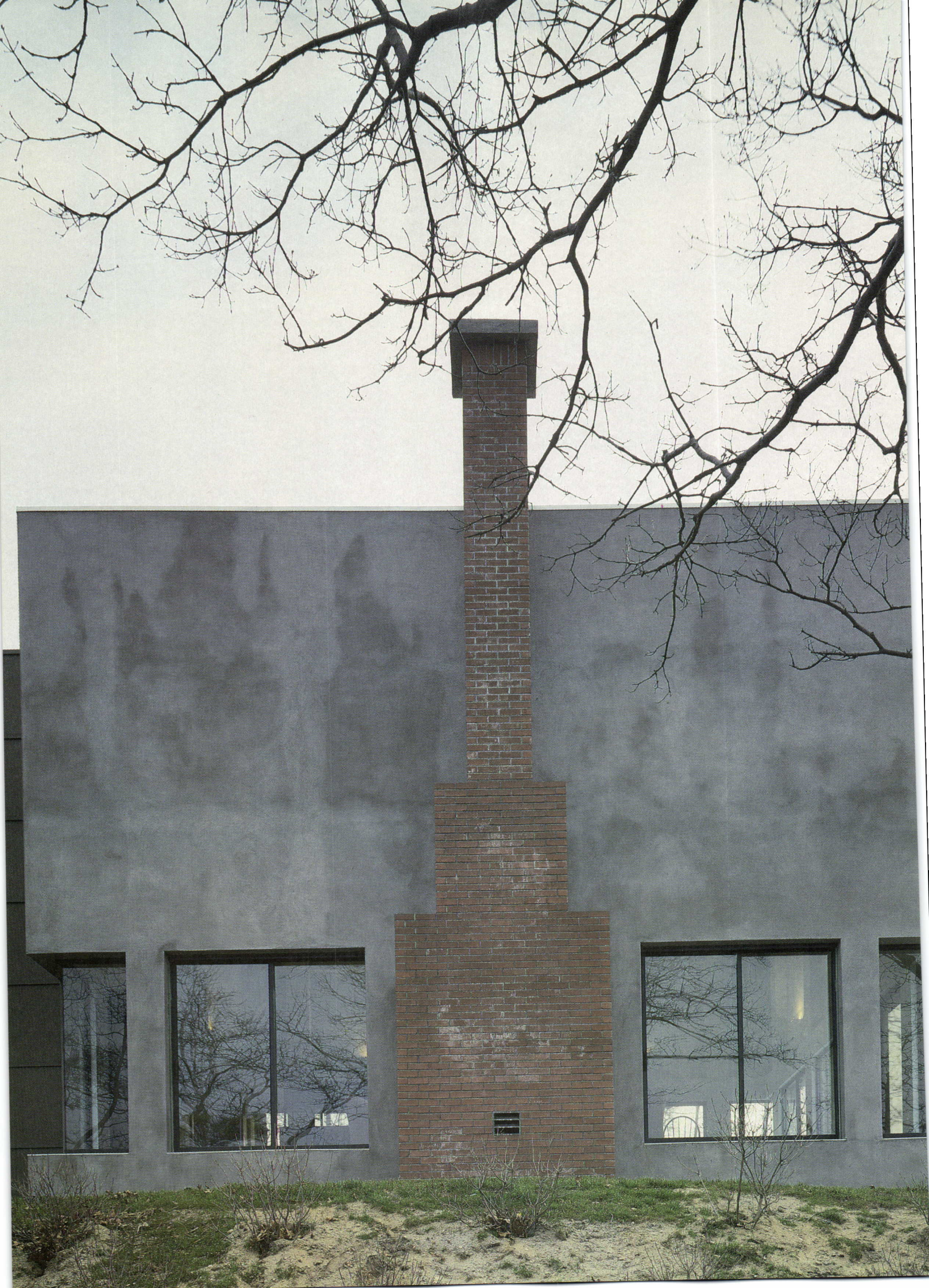
At once forbidding and hospitable, reclusive and extroverted, mannered and relaxed, the ambience of the house eludes easy categorization or a simple response. Approaching by land, one rounds the bend of a country lane to catch sight of a dour, blocky silhouette rising like a castle keep beyond stands of pines, tall grasses, and a pond. A walled forecourt reinforces the impression of some feudal domain, and the narrow hooded portal set into a windowless armor-clad tower (detail opposite) seems to promise, at best, a cool welcome. At the same time, however, a broad outdoor stairway to the left of the front door offers the arriving guest a more congenial entry, inviting access to sunny terraces and a high, airy room glimpsed above the basement podium. The two modes of entry immediately announce the multilevel, crossed-axial scheme that orients the entire 3,200-square-foot villa, as well as the clear separation of public and private zones at the heart of its parti. This clarity directly reflects the clients' priorities, which emphasized above all the fusion of living room, dining room, and kitchen into a single open space, a "great room" giving onto an expansive deck and swimming pool. McAnulty and Williams conceived the great room as a splendid, lofty centerpiece, with flanking appendages to accommodate more intimate domestic functions and pose visual barriers to the adjoining properties (overleaf).

If the templelike stuccoed cube enclosing the great room suggests the abstract purity of a platonic archetype, the varied complement of timber- and metal-sheathed dependencies bespeaks the pragmatic adjustment of ideal form to mundane necessity in the everyday world of garages, barbecues, lounge chairs, and cabanas (plans page 127). The pronounced verticality of the entry stair-tower and bedroom wing recalls the architects' earliest visions of a tall hilltop belvedere—an instinctive response to the site that opposed the clients' notion of convenient retirement living at ground level. In the end, it *is* possible to dwell here on a single plane, but one must step up from the forecourt to reach it. If the view from the piano nobile were not enough alone to make the climb worthwhile, the spatial and tectonic drama of the stair tower and great room would more than justify the effort. Gazing upward at the harmonious play of light and shadow across a coffered ceiling, one can feel that the beast in the jungle has—at least for a moment—been held at bay. *Douglas Brenner*

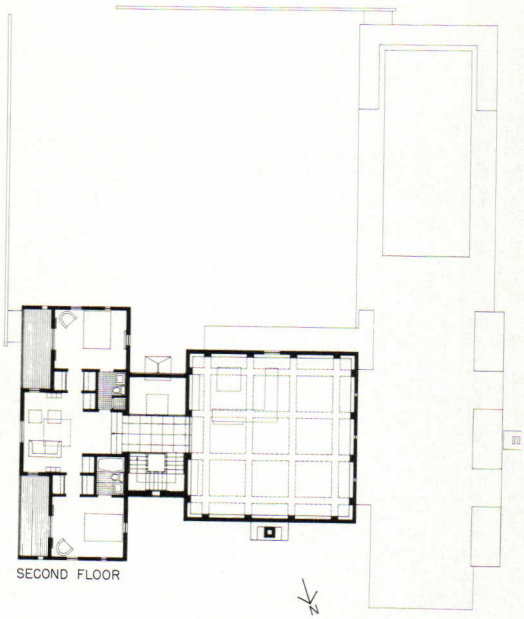
Conceived in its entirety as a perfect cube, whose base rests on the entry courtyard, the stuccoed pavilion housing the "great room" forms the core of an extended orthogonal scheme (plans overleaf). Butt-glazed corner windows open the interior to a panorama of natural landscape and the man-made oasis of timber decks and poolside kiosks. Symmetrical alignment links the trio of bar(below right this page) and

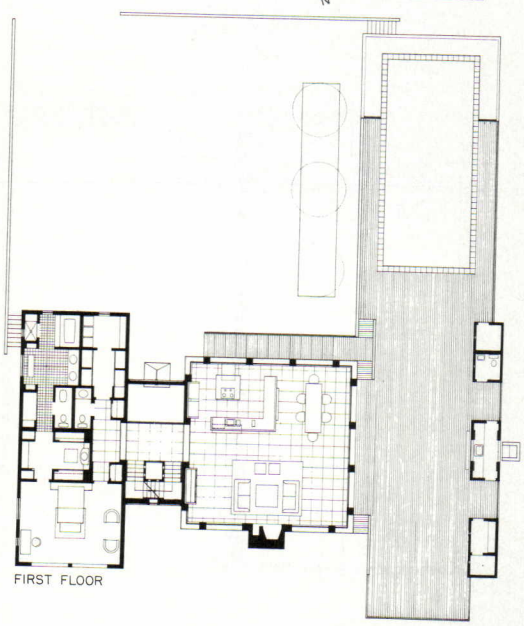


flanking cabanas with the major cross-axis of the interior, almost as though the three small structures on the terrace had been pulled out of the great room's west facade. Seen from the outside (opposite), the fenestration of this wall anthropomorphically suggests a huge, grinning face, an effect that intensifies at sunset, as the stucco takes on a reflected blush. When the shojilike windows of the bar are illuminated from behind like a Japanese lantern, the translucent sliding panels form a glowing terminus for the enfilade through the house (when the bar windows are open, one can look through to a sunken barbecue pit). The swimming pool marks another axis, commanding vistas of a duck pond and woods to the south (left photo) and a larger pond, Great Peconic Bay, and the North Fork in the opposite direction (top photo).



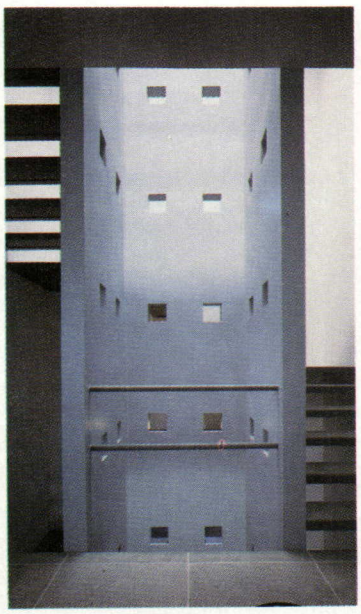
Contrasting materials articulate distinct functional elements that have, in effect, accreted to the pristine geometry of the stuccoed cube: a brick chimney, an aluminum-sheathed stair tower, a cedar-sided bedroom wing and pool deck. Inside the gypsum-board-paneled great room, McAnulty and Williams painted walls to match the color of exterior stucco, evoking the plasticity of a monolithic trabeated

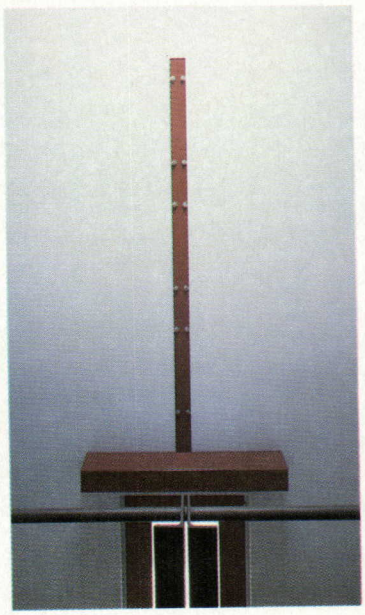




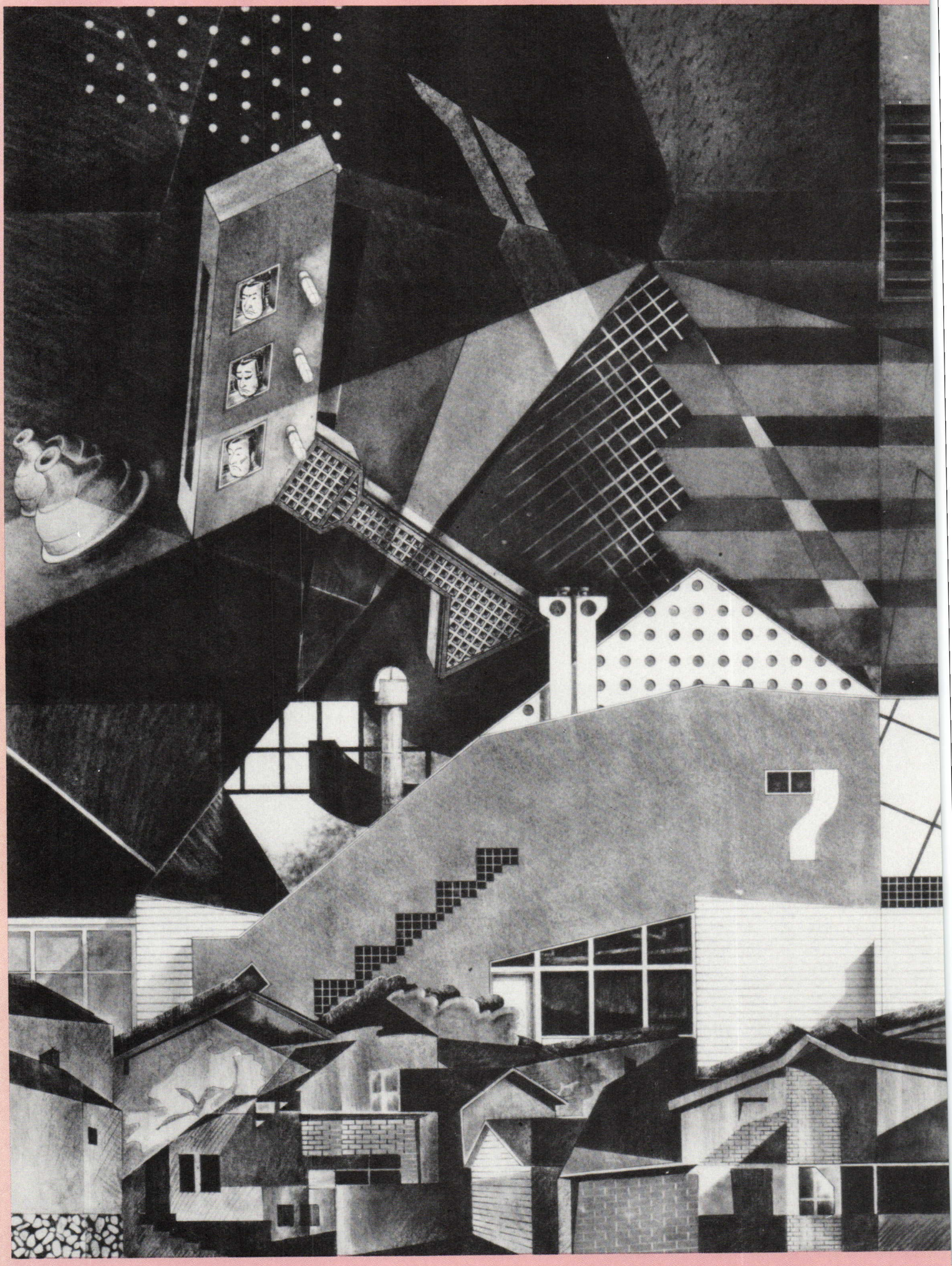
structure. Islands of furniture subdivide the 1,000-square-foot pavilion into living room, dining room, and kitchen without physically interrupting the spatial unity of the 15-foot-high volume (lower photo this page and overleaf). The grid of a Vermont slate floor establishes the matrix on which the coordinates of architect-designed cabinets, tables, and rug have been plotted. Dark woodwork is ebonized oak, rubbed with white paste filler to highlight the grain. The coffee table has copper and aluminum pedestals and a glass top, through which one can study carpet patterns keyed to the color and dimensions of the upholstered seating. The only other embellishment to the spare interior—aside from changing shadows cast by natural and artificial light—is a sculpture by Steve Wood over the fireplace.

Bolted clear through the frame of the stair tower, the upright steel spine above the front door canopy (details page 123 and this page lower left) foreshadows the soaring verticality of the foyer. Skylights and a Mel Kendrick sculpture that seems to cower at the foot of the stairs heighten the vertiginous drama of ascent (upper left and opposite). Open risers, slender steel handrails, and a hollow newel perforated with square windows simultaneously reveal and conceal movement, in keeping with the dual role of the multistory shaft as a bridge and a buffer between the common living areas and independent quarters in the bedroom wing. By shifting the landing pavers off the grid of the great-room floor, the architects subtly underscore the discrete identity of the tower volume (large photo this page). Seen from the great room, the stairway bridges frame a Deborah Kass painting outside the master bedroom and a sitting room in the second-story guest suite.

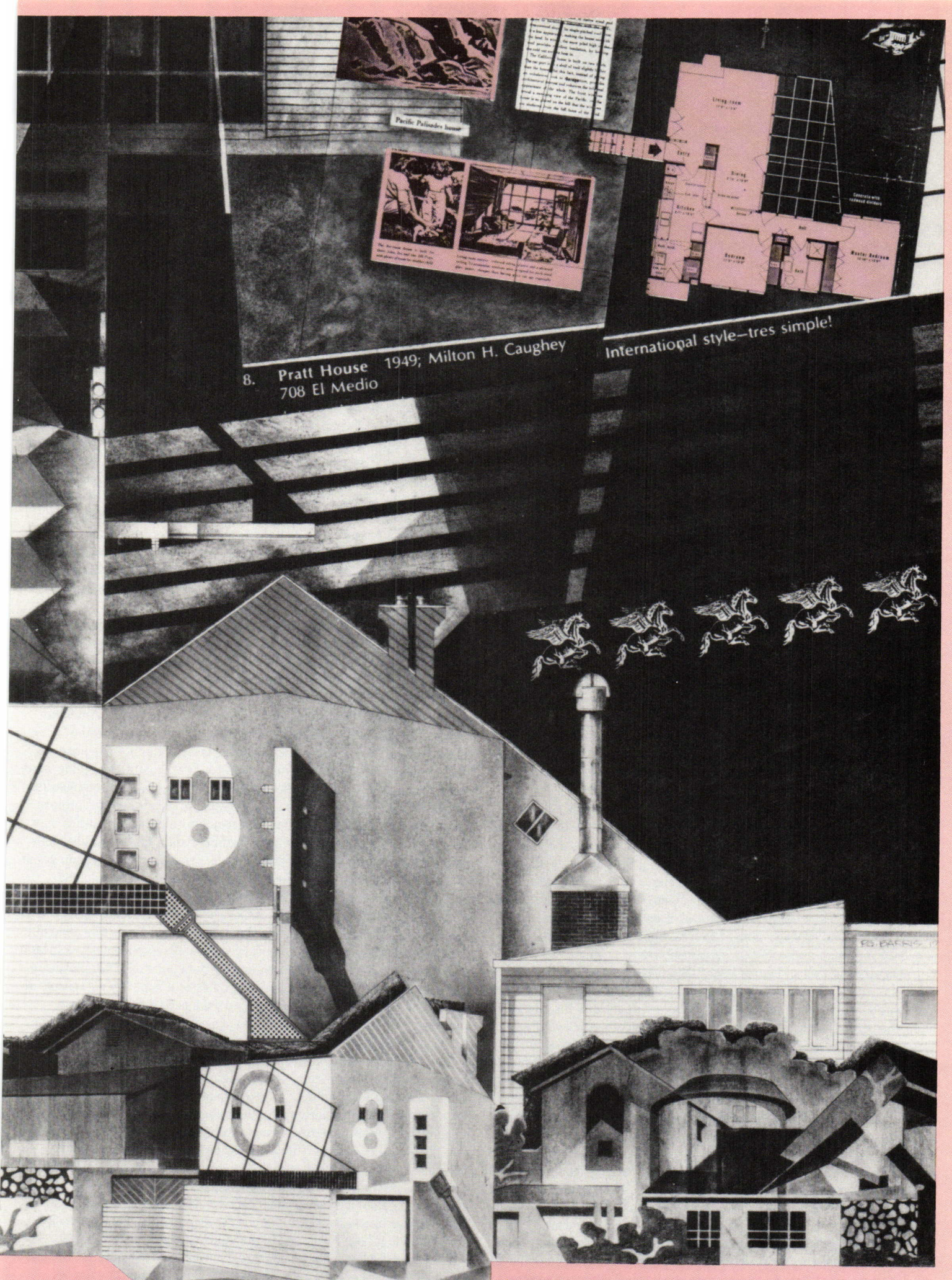




Private residence
Southport, New York
Architect:
Tod Williams and Associates—Robert McAnulty, Tod Williams, principal designers; Mojdeh Baratloo, Peter Thaler, Stephen Abbott, design team
Engineers:
Frank Taffel and Associates (structural); AD & S Engineering (mechanical)
Lighting:
Richard Shaver
Cabinetwork:
Andreassen Construction (cabinets); Yoshi Morohashi Woodworking, Inc. (dining table)
General contractor:
Andreassen Construction



Gathering Moss



Four projects
by Eric Owen Moss, Architect

"My name is Ozymandias, king of kings:
look on my works, ye Mighty, and despair!"

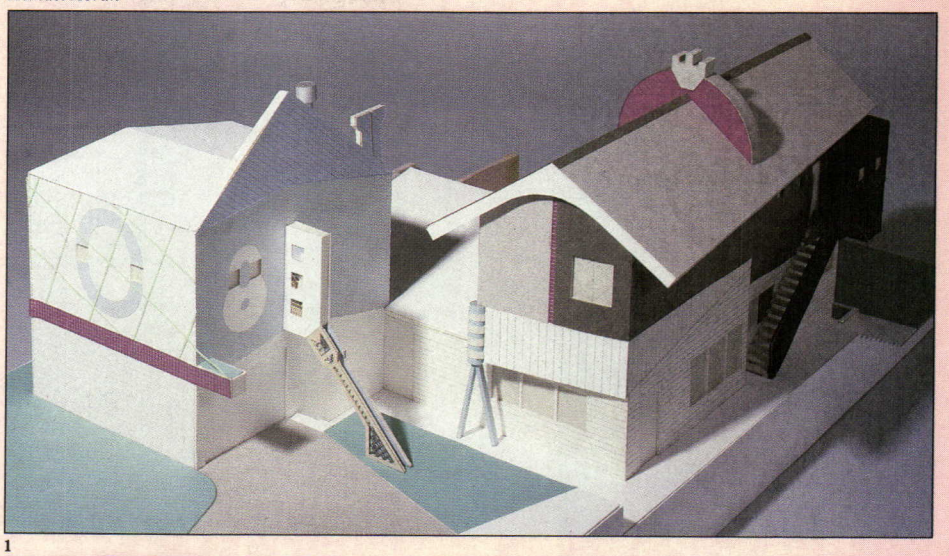
His name is not, in fact, Ozymandias—it is Eric Owen Moss. And if his works, at least to date, inspire despair, it most likely won't be for the reasons implicit in 19th-century poet Percy Bysshe Shelley's ode. Nonetheless, we allow Moss his dream; likewise, though with appreciably more strain, his literary reach for eloquent expression of that dream. We indulge the fantasy because Moss pursues his architectural aspirations with an intensity and seriousness of purpose we can only admire, and if a bit of egomania courses through his professional veins, so be it. But Moss will have to add perseverance to his retinue of personal qualities, however, if the present canyon between dream and reality is ever to be spanned. For over the last nine years the now 41-year-old Angeleno has acquired a bad-boy reputation which has ensured that his portfolio of built projects remains slim, and which will not (as the careers of Stanley Tigerman and Frank Gehry attest) enjoy a quick death. Though the question of whether *enfants terribles* are born or self-made is arguable, in the case of this *enfant terrible* there is an active (some would say *hyper*active) will hard at work. For example, when reviewing a written project description of the 708 House (figure 1, facing page), amusement gives way to incredulity as one glides down the 10-point list of "critical features [to] be noted," and sails by "Flying Buttresses, Flying Door, Flying Wall, Flying Grid,. . . Flying Horticulture." By the time you land at critical feature number eight, the temptation to dismiss Moss as just another crackpot from California borders on the irresistible: "8. Gang Plank: Plank folding out of the east wall providing access (for pirates) to the first floor roof. In extended position, rests on two rubber toilet plunger ends attached to face of plank." Fun is fun, and "wit" is now considered a legitimate architectural component, but even by today's permissive standards pirates and plungers are uncomfortably beyond the pale. While the example is extreme (even for Moss), it is not uncharacteristic. For if there is one goal he appears to hold above all others, it is, simply stated, to rock the boat.

"The problem with architecture today is that there are 10,000 guys doing five things," concludes Moss, who believes (it is safe to infer) that he is actively engaged in doing the sixth thing. Unraveling the enigma of precisely what that sixth thing is, however, is not unlike booking passage on the voyage of Ulysses—there are sirens and Cyclopes, rough seas and treacherous shoals. For Moss barricades himself behind a wall of references to Camus, Cervantes, Dostoyevsky, Kafka, Kierkegaard, Shakespeare, and, of course, Shelley. Add to that his penchant for citing archeological remains in Bolivia, India, Peru, and the Yucatàn—as well as Easter Island, Stonehenge, and King Tut's tomb—as an inspirational source list, and still the question, "Why are there rubber toilet plunger ends supporting a gang plank for pirates?" hangs heavy in the air. Though no definitive answer is forthcoming, some insight may be gleaned by those intrepid enough to listen in as Moss outlines his general motives: "Architecture is in a fundamental sense a manifestation of the content of the time in which it is produced. It can communicate certain things about the nature of the time; about the way people live, or the way people might live; or about what people aspire to, or what they should aspire to. It raises questions: 'What's a building?' 'What's a house?' 'How do people live?' " If we are to understand that Moss has assigned himself the task of opening our sociocultural eyes, then the initial mystery of his fantasy about the ideal viewer-response to his work is solved: "I would like people to feel that somebody just punched a hole in their sky." In other words, the "sky" is a container that defines and limits our world; Moss finds that needlessly constricting, and would like, to put it bluntly, to blow the lid off. Whether or not anyone experiences the desired effect, of course, depends on how seriously one is willing to take the architect and/or the architecture. The issue comes up because a fair percentage of Moss's work to date stands a better chance of alienating than engaging the very people it hopes to. . . well, liberate. We all know the Roto-Rooter Man is part of life—what of it? But if Moss is guilty of indulging himself in an extended angry-young-man phase, that phase now appears to be subsiding. Though he still maintains that "there has to be some discordant note," he adds, "but I don't think the way to do that is to take an ax to the world—I used to think that." The former thought, i. e., the ax-wielding Moss, resides in the 708 House, which effectively characterizes a series of early projects so obsessed with making a point that they frequently appear to have lost sight of the point they were trying to make. The overzealousness should be regarded as a neophyte architect's attempt to "flush out" the lessons he ingested in college, which, in the case of Moss, were Harvard's rendition of love thy grid, honor thy structure, and obey thy Modernist doctrines. "As Corb said, you have to burn what you love," sums up Moss, who made nothing less than a bonfire. If he also managed to singe himself a bit in the conflagration, he now appears to be mending. His current vigor is revealed in the recent Costa Mesa Office Building (figure 2), Escondido Civic Center (3), and Honey Springs Country Club (4), which suggest that Moss has put away his matches and sharpened his pencil.

Those who fear that the young radical has been beaten into obeisance should not lament, however. If time, experience, and maturity have conspired to recommend a more moderate tack for Moss, his basic principles (as well as the provocative edge that has always distinguished his work) remain uncompromised. Nor has the now not-so-young architect succumbed to the current pressure to ally himself with either side in the tug-of-war between historicism (which he characterizes as "rancid") and Modernism (which he characterizes as "emotionally dead"); instead, Moss appears to be committed to forging his own idiosyncratic way in the pursuit of a contemporary American architecture that is committed to speaking not only of but to the century of which it is such an essential part. And though we must suspend judgment on the eloquence of Moss's voice until he builds what he now has only drawn, the three post-708 House projects compiled for this portfolio suggest that we should keep our ears tuned to southern California. The eagerness stems first from our pleasure in noting that Moss is committed to addressing both timely and timeless issues in his work, rather than treating architecture like some rainy afternoon game of "Style Wars." The Costa Mesa Office Building, for example, may have only modest architectural aspirations (page 138), but even here, in a building type more frequently associated with real estate than architecture, Moss not only keeps the building architecturally alive but introduces a critique of contemporary values by punctuating one facade with a rose window (facing page). Is society being chided for elevating business to the status of religion? Are office buildings the cathedrals of today? Though Moss isn't saying, when he inserted the same rose window in the garage of a residential project, he dubbed it "the shrine of the Holy Mercedes." To those who contend that social criticism is one thing, the rigors of architecture quite another, Moss's entry in the Escondido Civic Center competition suggests that the intricacies of urban planning do not elude his grasp (page 140). But our enthusiasm for a low-budget speculative office building, and a not-completely developed competition entry, is understandably qualified—"too soon to tell." The verdict changes, however, when scrutinizing the Honey Springs Country Club project, wherein the excitement that is Moss's potential is revealed in a scheme that addresses the relationship between man and nature, architecture and the landscape (page 142). Moss strikes an exhilarating balance between defiance and deference, as the building both hides within the landscape and soars above it.

The country club is Moss's big break, or as they say in L. A., the one that's gonna make him a star. If he can build it, we might even be persuaded to turn a deaf ear to his discussion of the project—specifically the part about "Moses coming down" off the club's mountainous roof. But as for allowing him to sign his name "Ozymandias"? "Eric Owen Moss" will do for now. *Charles K. Gandee*

Michael Moran



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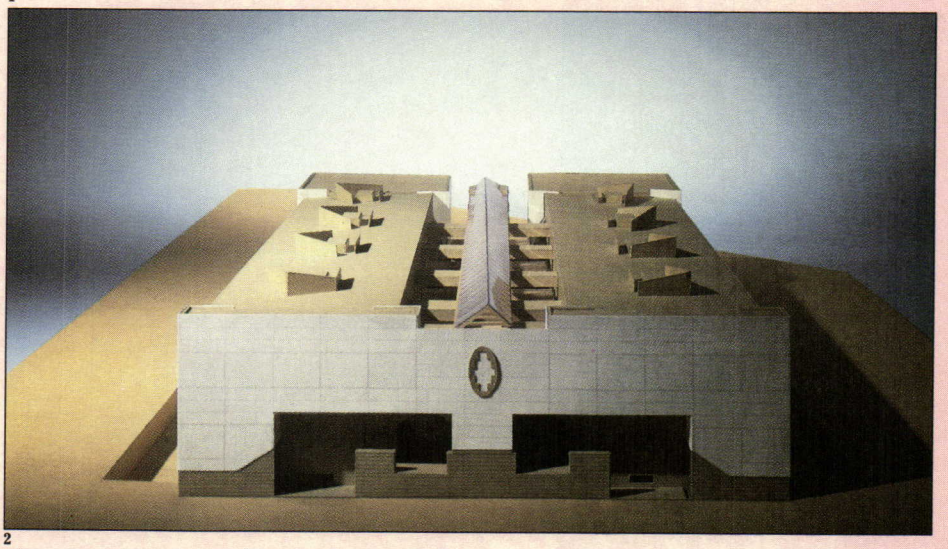

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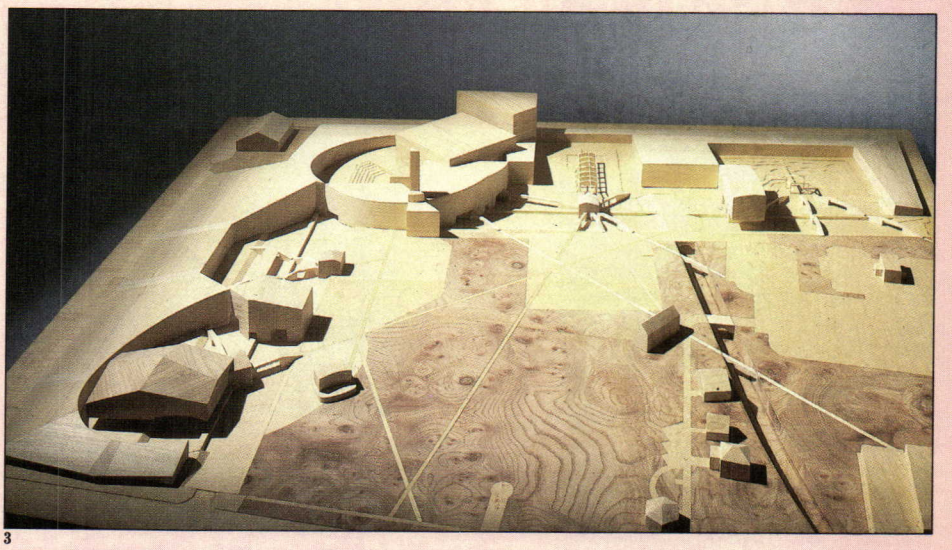


3

Last summer, RECORD stopped in at the Santa Monica office of Eric Owen Moss, Architect, to catch up on his current work. After the show and tell, we confessed to being intrigued, and decided to give Moss's work—as well as his ideas about his work—the public airing we feel it deserves. The four projects included in the portfolio are the 708 House (figure 1), the Costa Mesa Office Building (figure 2), the Escondido Civic Center (figure 3), and the Honey Springs Country Club (figure 4).

4

708 House
Pacific Palisades, California
Eric Owen Moss, Architect

It's the kind of house for which the phrase "you can't miss it" might have been coined—a guaranteed-to-stop-traffic bit of architectural showmanship on a quiet, suburban street in genteel Pacific Palisades. Architect Moss shares the house with his young family, whose growing ranks suggested expansion of Milton H. Caughey's 1949 house (see collage, page 133). Moss embarked on the renovation of the "708 House" in 1981: to date, Phase 1—which includes a large bedroom and three ancillary spaces—is completed. Phases 2 and 3 (drawings right) are awaiting the necessary dinero. *Though volumes could be written analyzing the three-phase renovation, in this particular instance we should probably remain content with merely looking over Moss's shoulder as he runs down his list of "Several critical features [which] should be noted:*

"1. Flying Buttresses: The entrance to the house is framed with two buttresses of identical shape laid one over the other. The first is of wood and plaster, painted blue; the second (bolted to the first) is of perforated 20-gauge steel painted green and set in a hardwood frame. Aside from defining the path to the door, the buttresses gently caricature the role of structure in building, a role Modernism deified.

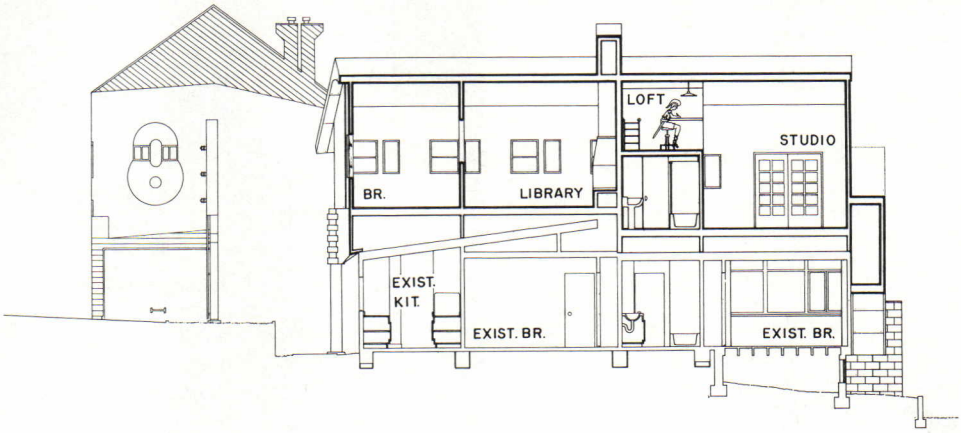
"2. Flying Door: The buttresses incline toward a large, rectangular, windowed box projecting from the second floor. The box encloses a door that slides out of the wall. Graphics panels are attached to the door, and when the door is pushed into the slot, the graphics become visible (through 18-inch square windows) from the street, from the sidewalk, or as one passes under the box/buttress to enter or exit.

"3. Flying Wall: The south wall of the building is extended vertically (balloon-framed) seven feet above the roof—a stage-set, two-dimensional wall with a gabled profile configured as a sort of Little-Bo-Peep's House, a play on existing stylistic preferences in the neighborhood.

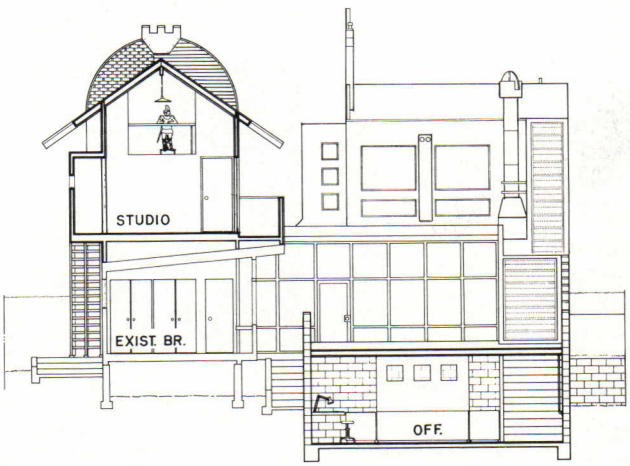
"4. Swiss Cheese: The north face of the flying wall is made with two layers of half-inch plywood—the first blue, the second white with eight-inch diameter holes cut in it.

"5. 708: The street address is delineated on the three public faces—one number each on south, west, and north walls. The numbers are made in combination with the tiny street side window system so that numbers are part windows and windows are part numbers, a device sure to be applauded by the local mailman.

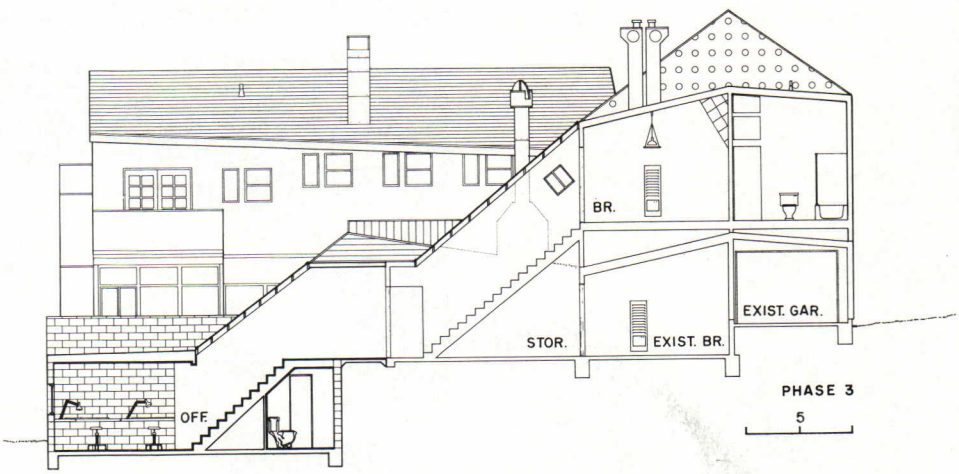
"6. Flying Grid: On the same plane as the letter O, a grid tilting leeward subdivides the west wall. The angles remain right angles but the positioning relative to the ground plane is no longer Cartesian."



PHASE 2



PHASE 2 AND 3



PHASE 3
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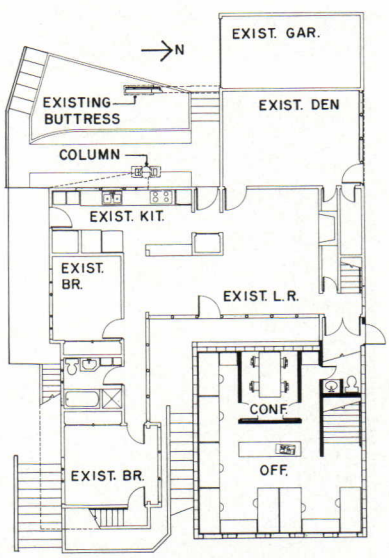
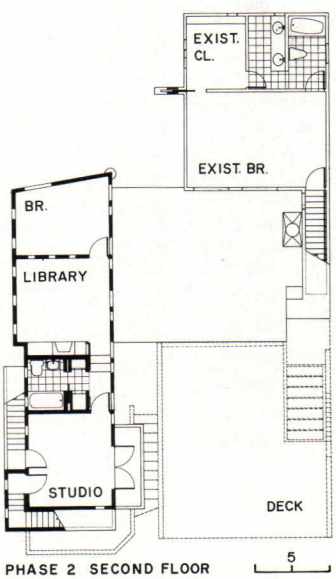


PHASE 3 FIRST FLOOR/BUNKER



PHASE 2 SECOND FLOOR
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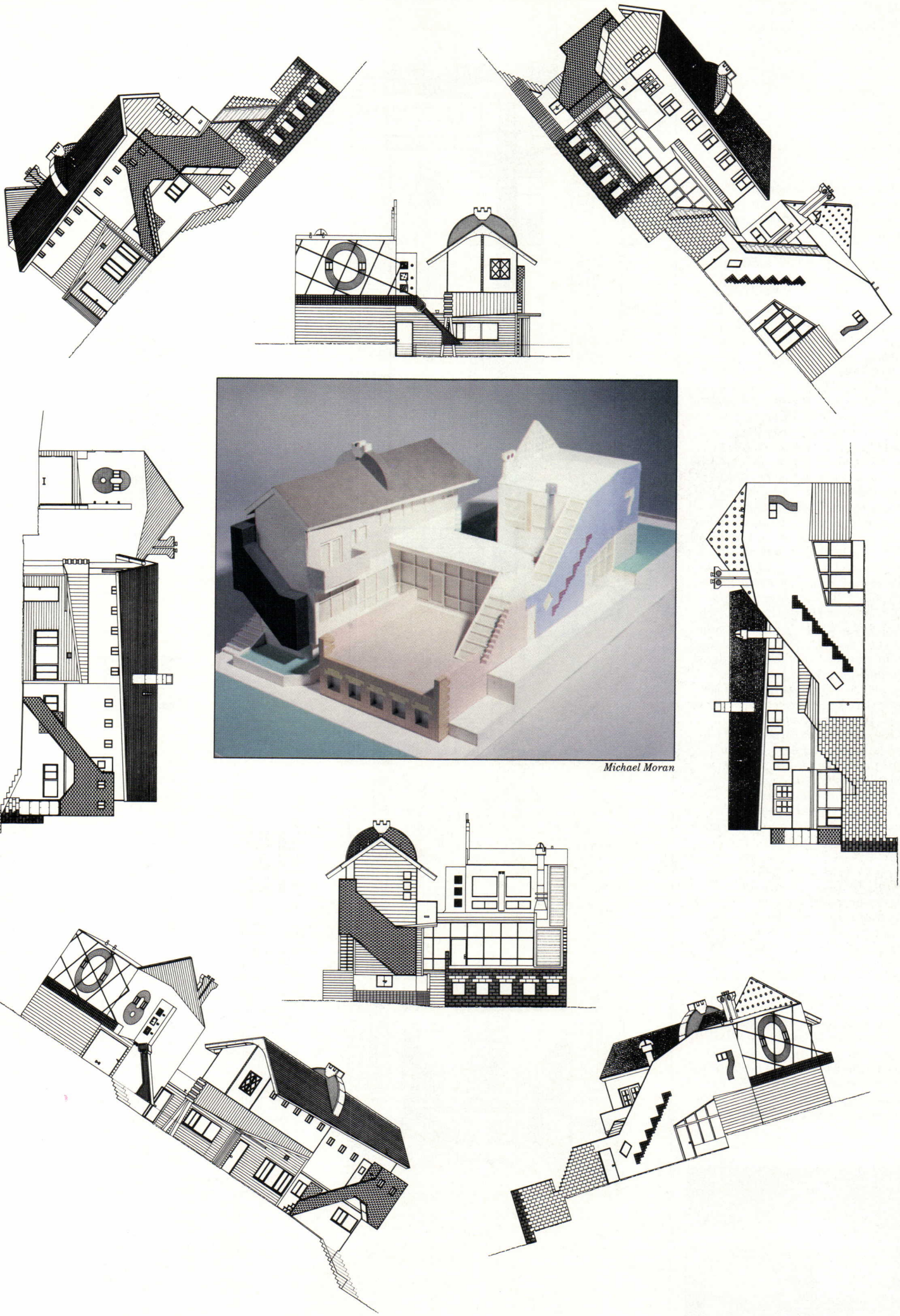
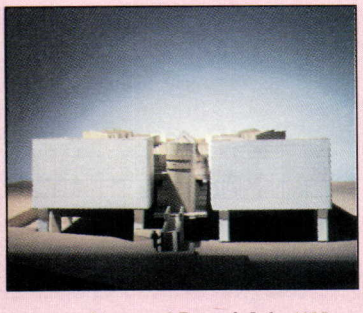


Michael Moran

Costa Mesa Office Building
Costa Mesa, California
Eric Owen Moss, Architect

Though by no one's estimation is the Costa Mesa Office Building a glamorous one, the 20,000-square-foot speculative structure nonetheless reveals Moss's ability to maneuver in the shark-infested waters of real-estate development. (For more on shark-infested waters see pool in perspective below). The project finds its home amid the spaghetti freeways, octagonal wood banks, corrugated-metal warehouses, vacant lots, and ersatz "Tudor" apartment buildings that signal the speed with which southern California's Orange County is growing. Moss's solution to his client's program for maximum leasable space at minimum cost calls for two parallel rectilinear blocks to be placed symmetrically around a private court. The symmetry is intended to counter the surrounding chaos with an insistent order, as well as offer cost-efficient (repetitive) construction. Parking is depressed a half level, and, consequently, the first-floor offices are raised a half level above existing grade. A vertical circulation tower connects parking with offices, and a second-level bridge (capped with a canopy of corrugated fiberglass) provides access to the second floor. The hyperbolic bridge cover is an asymmetrical incident in the otherwise symmetrical composition; likewise the fountain and lavatories lodged in the court. The "public" end walls of the office blocks utilize curtain-wall technology, which, according to Moss, "is the way you build a spec office tower if you're Emery Roth working in New York"; the "private" side walls are stucco and tile, which "is the way you build everything in Orange County." By city fiat, rooftop air-handling equipment is screened from view: Moss's screens have been positioned in such a way that though the view from the nearby freeway may change, the view of the rotated screens remains constant. Included along with the rooftop screens in the building's catalog of "erogenous" elements (treated as the pivot around which the elevations turn, facing page) are the quirky downspouts; one almost hesitates to report that they were inspired by Phoenician rowers—"Like the ones you might see in Tut's tomb."



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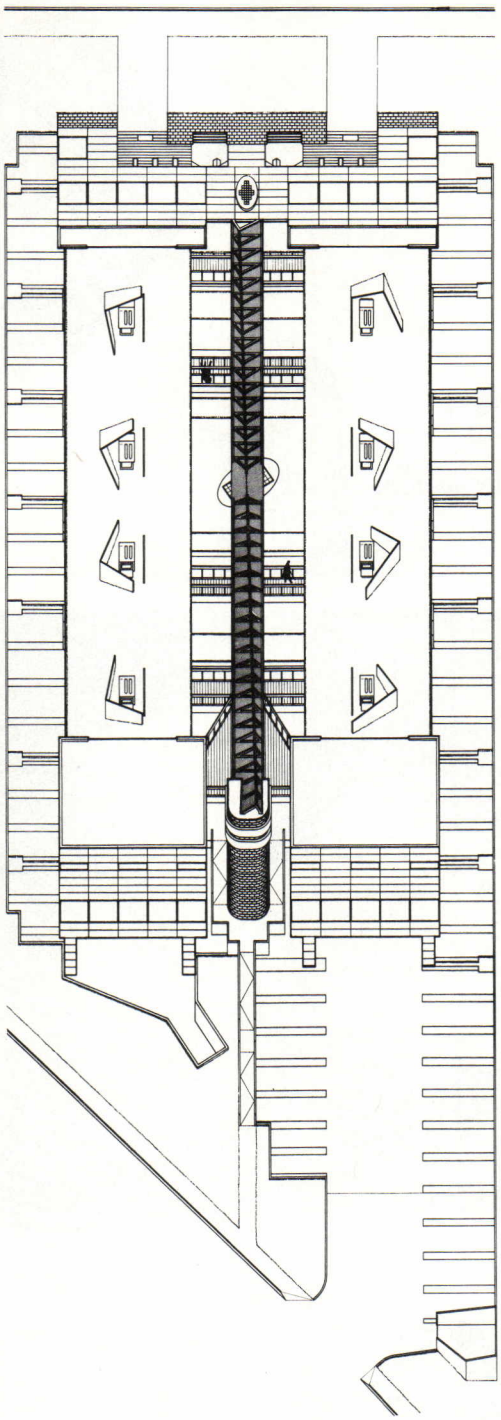
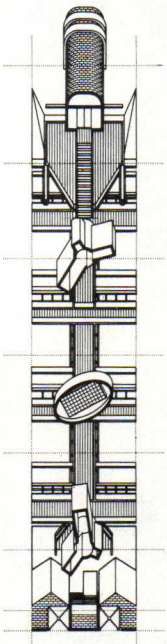
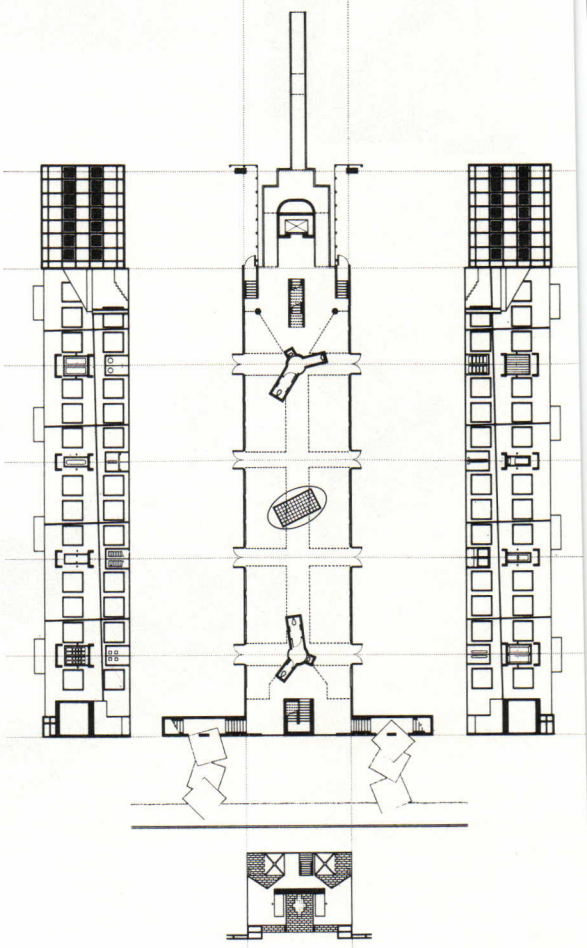
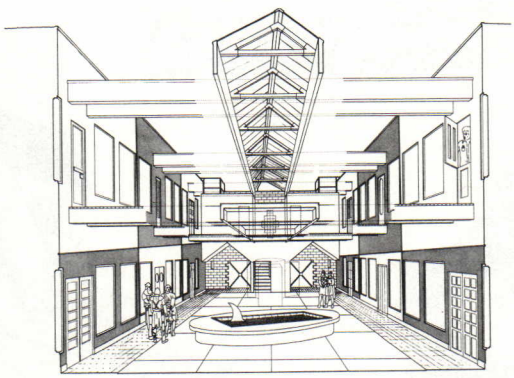
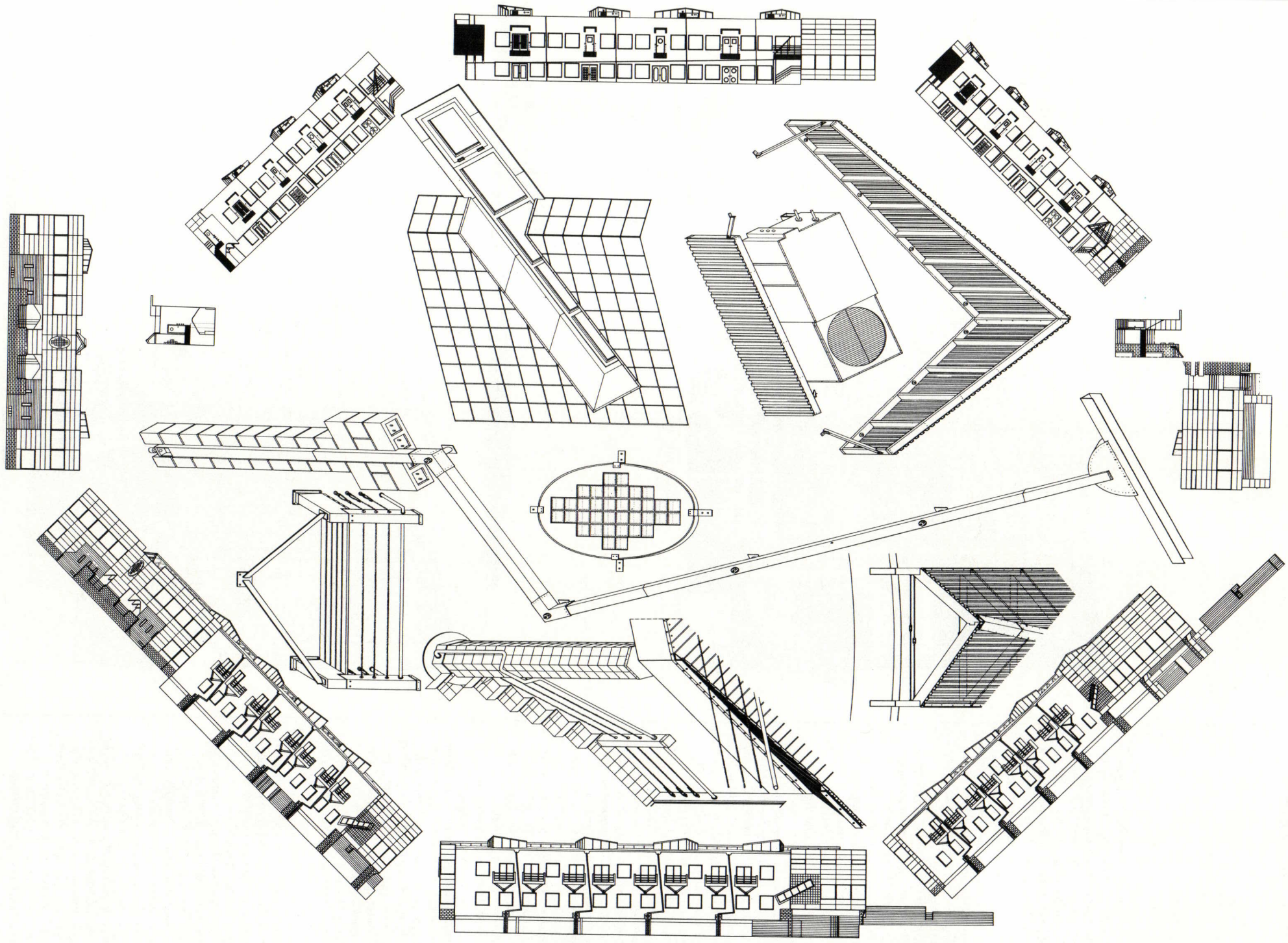




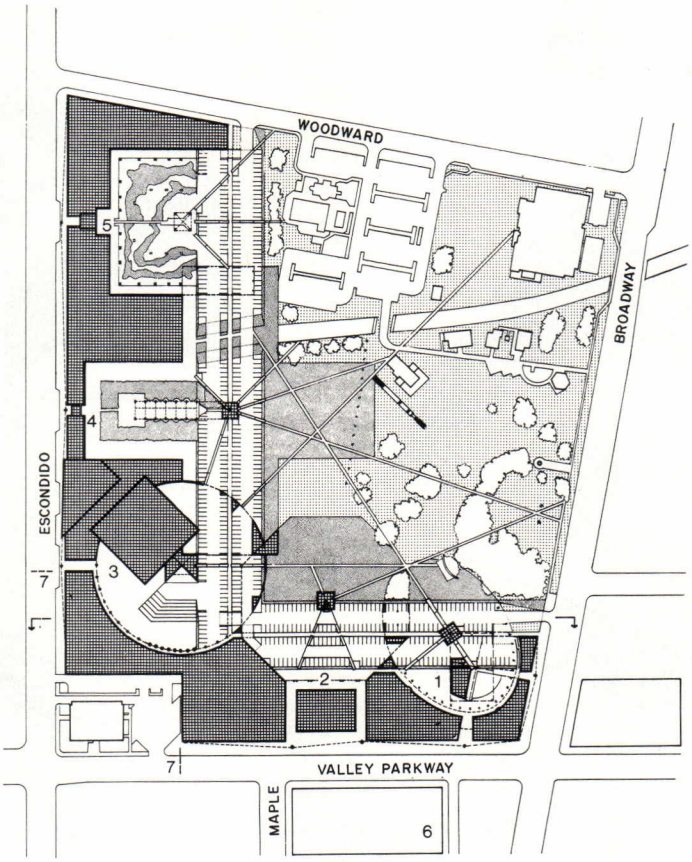




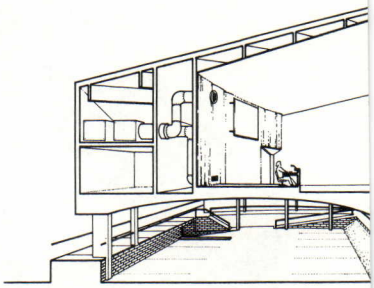


Escondido Civic Center
Escondido, California
Eric Owen Moss, Architect

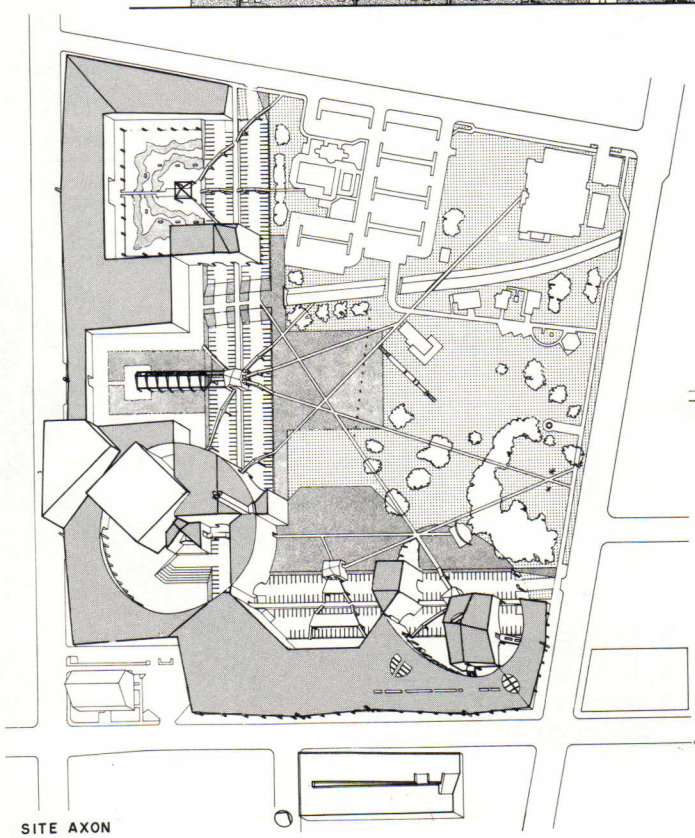
Though an unimpressed jury sent Moss's entry in the Escondido Civic Center competition to an early grave, his proposal for the $52-million governmental and cultural center nevertheless offers a welcome opportunity to watch the architect in action on a larger scale, and with a more complex program to address. His scheme for the 13-acre downtown site is organized around five overlapping courtyards that open to an adjacent park. Each court develops its own formal geometry, which defines one major piece of the program: City Hall, ellipse; government facilities, hexagon; theater court, circle; conference facilities, cruciform; museum, square. When viewed from the surrounding streets, the five courtyard buildings are intended to be perceived as one continuous building wall defining the street edge. A massive roof sweeps upward from the street perimeter toward the interior of the site, and as it angles upward, it reveals in elevation the various plan forms of the interior courts. The roof line is extended beyond the buildings' perimeters to create public arcades punctuated with numerous entry points to the complex. Each of the courts has been geometrically subdivided by extending construction lines from their geometric centers to the perimeter. These guidelines are then used to generate building forms, walks, bridges, gardens, and small structures within the court. Superimposed on the diagram of the five interlocking courts is an L-shaped parking lot traversing the site. ("A bit of Venturi," quips Moss.) A major pedestrian walk connecting all the courts subdivides the parking lot; on-site parking is dropped five feet below the courtyard/park, which provides convenient parking adjacent to each major function without obstructing views across the site. Where courtyard geometries overlap in plan, buildings are generated by the superimposed plan forms. The roofs of these buildings continue the sloping roof concept—angling upward until they reach a vertical apex at the center line of the pedestrian walkway, then sloping away. The roof of the Council Chamber building at the City Hall ellipse is rotated and sloped to acknowledge the Broadway-Valley Parkway intersection (site plan right), as well as the eminence of the Council Chamber as the complex's major civic policy-making facility. In terms of his material aspirations, Moss had intended gray-brown split-face block and off-white plaster, capped with blue-gray concrete tile roofs.

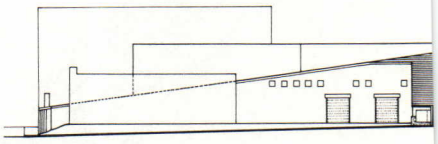


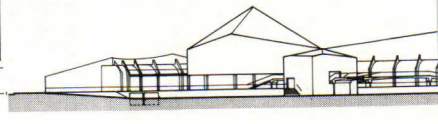
SITE PLAN 100



1. *City Hall court*
2. *Government Facilities court*
3. *Theaters court*
4. *Conference court*
5. *Museum court*
6. *Parking structure*
7. *Government Facilities Phase 2)*

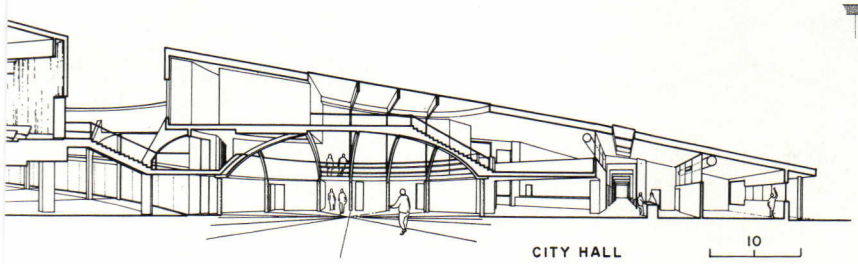




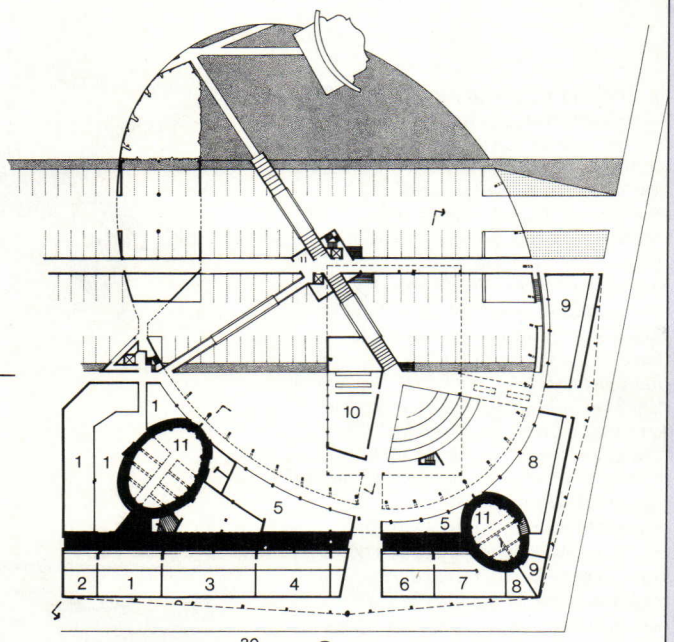


SITE AXON

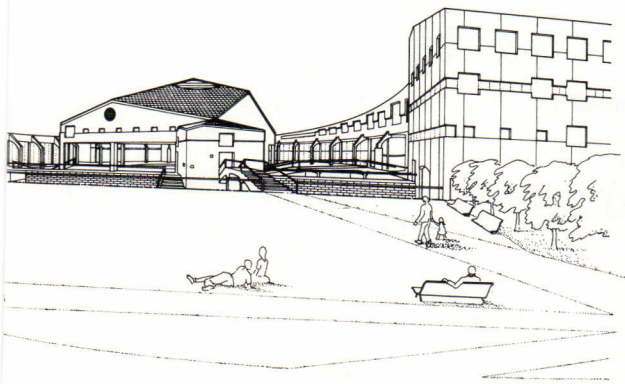
1. *Engineering*
2. *Public Works Administration*
3. *Community Development*
4. *Building Department*
5. *Management Services*
6. *City Clerk*
7. *City Treasurer*
8. *City Attorney*
9. *City Manager*
10. *Cafeteria*
11. *Public lobby*
12. *Parks*
13. *Community Services*
14. *Recreation*
15. *City Council*
16. *Council Chamber*



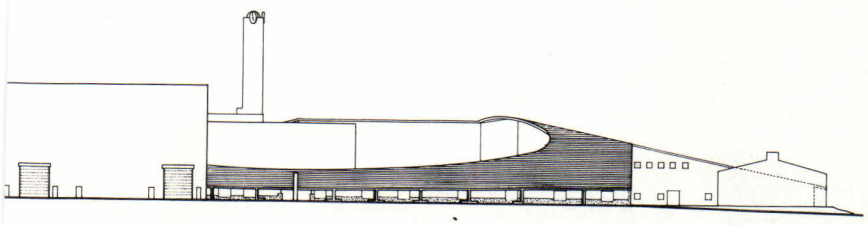
CITY HALL 10



FIRST FLOOR 20



CITY HALL COURT



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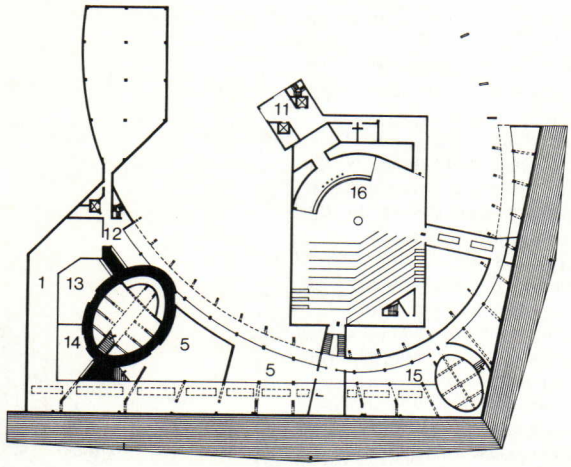
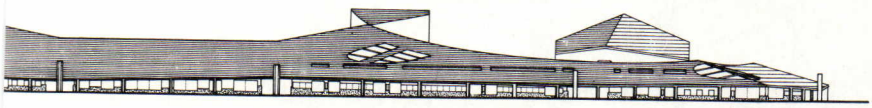
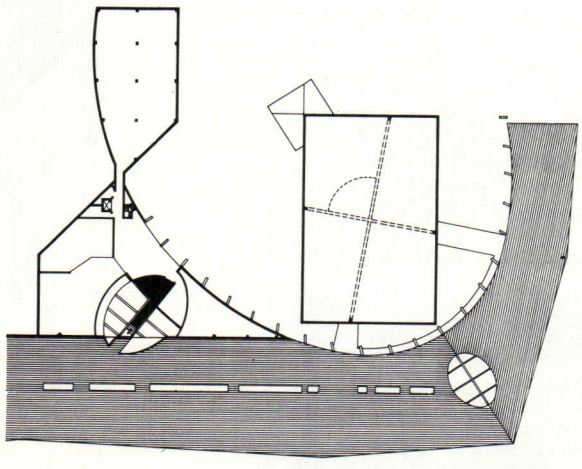


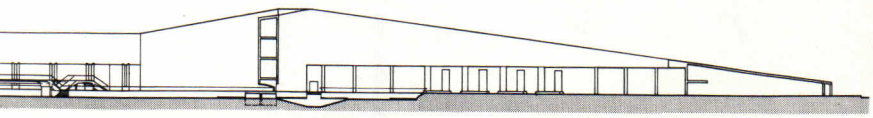
SECOND FLOOR



VALLEY PARKWAY 20

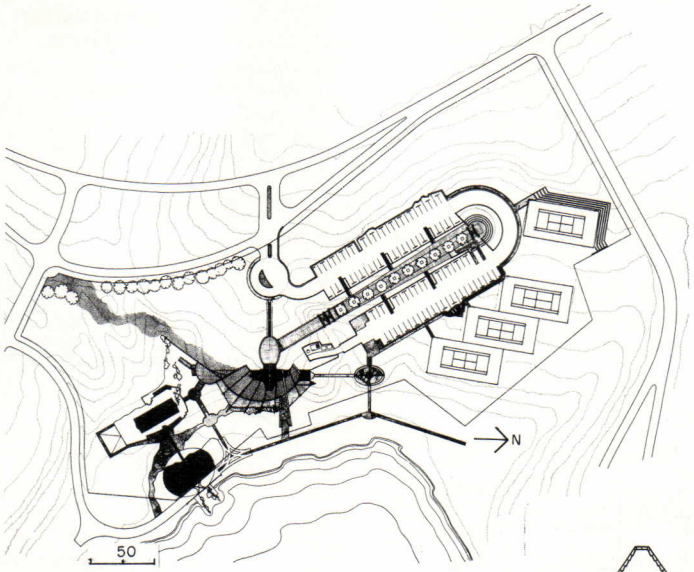


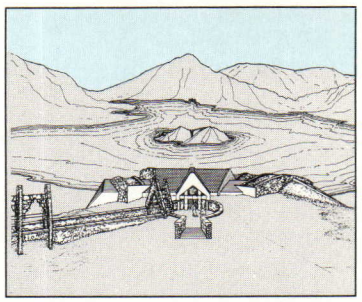
THIRD FLOOR

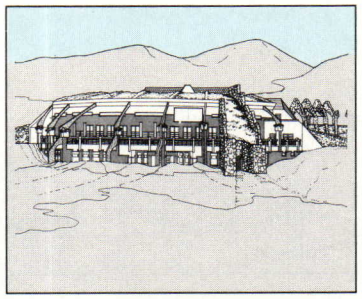


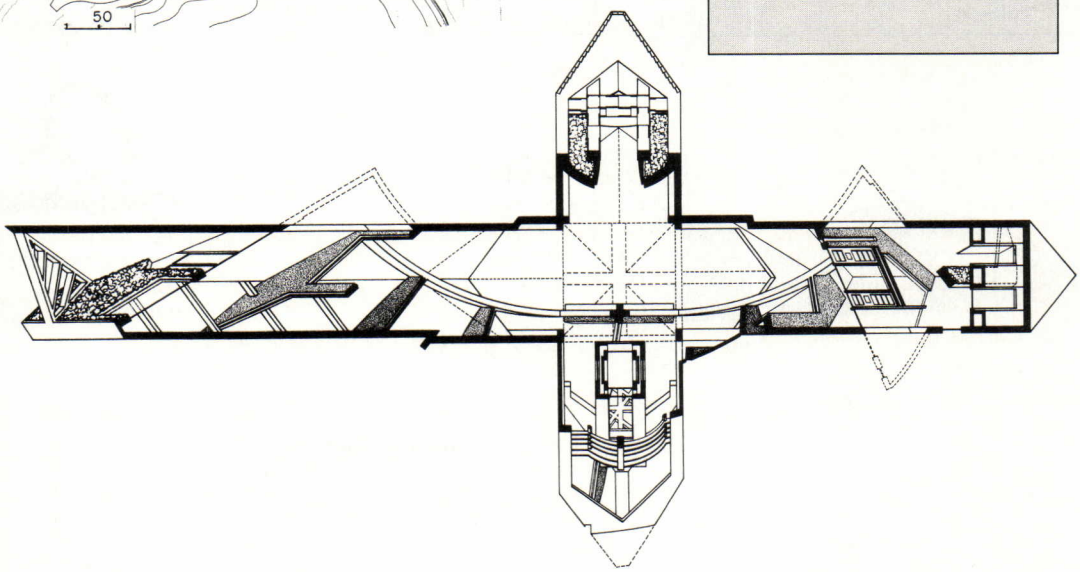
SITE SECTION

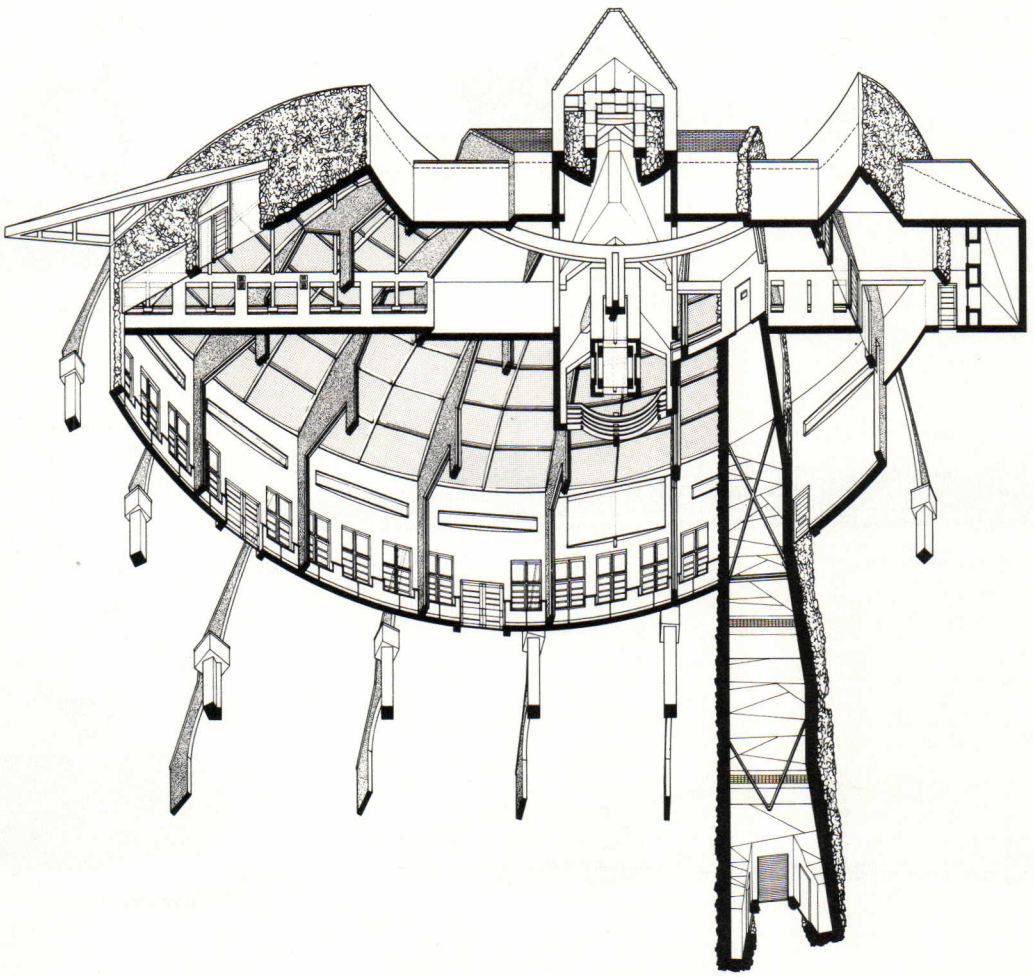
Honey Springs Country Club
San Diego, California
Eric Owen Moss, Architect







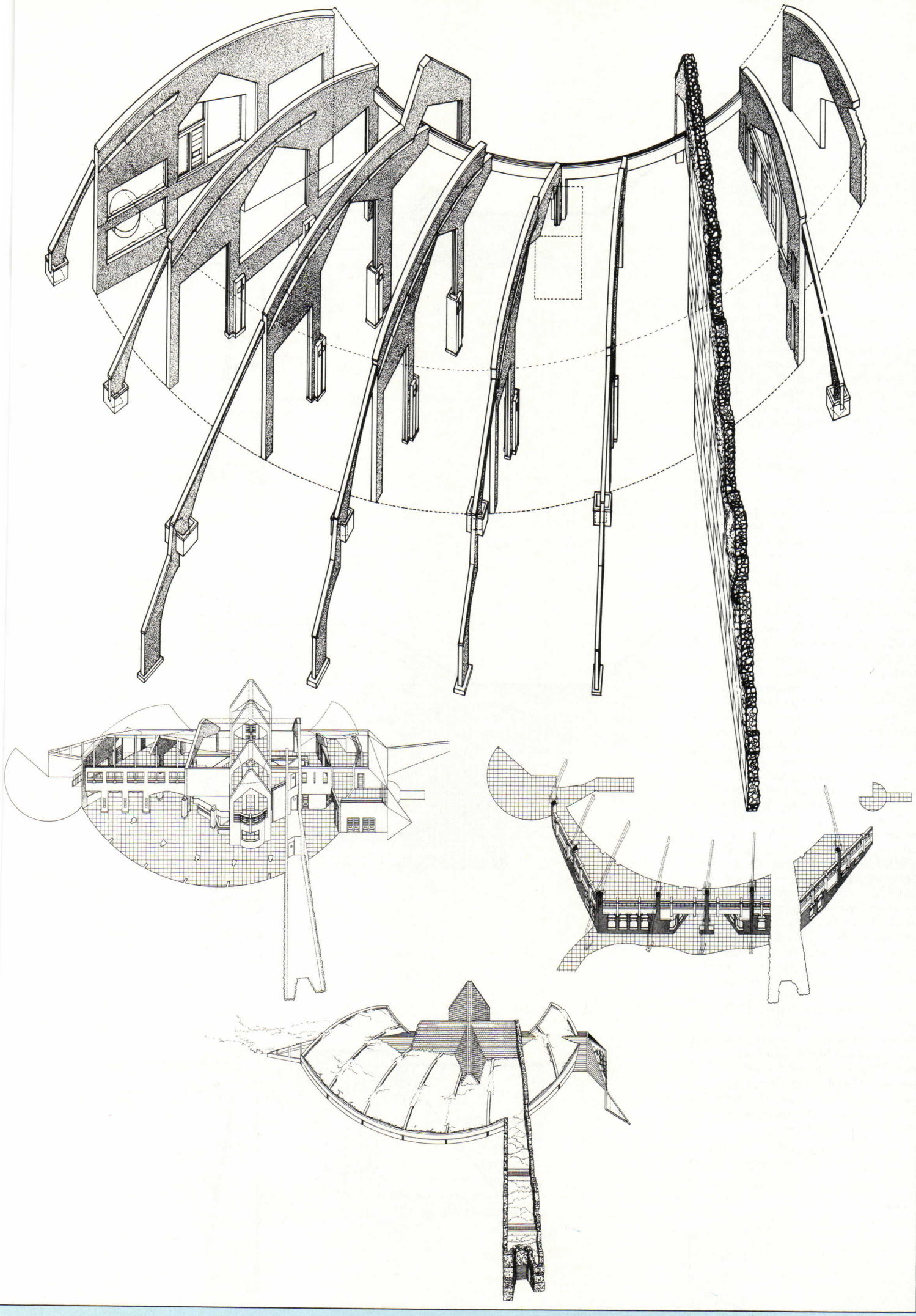




As the focal point and centerpiece of a 2,300-acre residential development, 20 miles east of downtown San Diego, the Honey Springs Country Club was conceived as an "attitudinal model and design precedent for integrating new construction with a rich and fragile natural environment." The 16,000-square-foot clubhouse speaks eloquently of Moss's talents and concerns, and Moss, in turn, speaks no less eloquently of it.

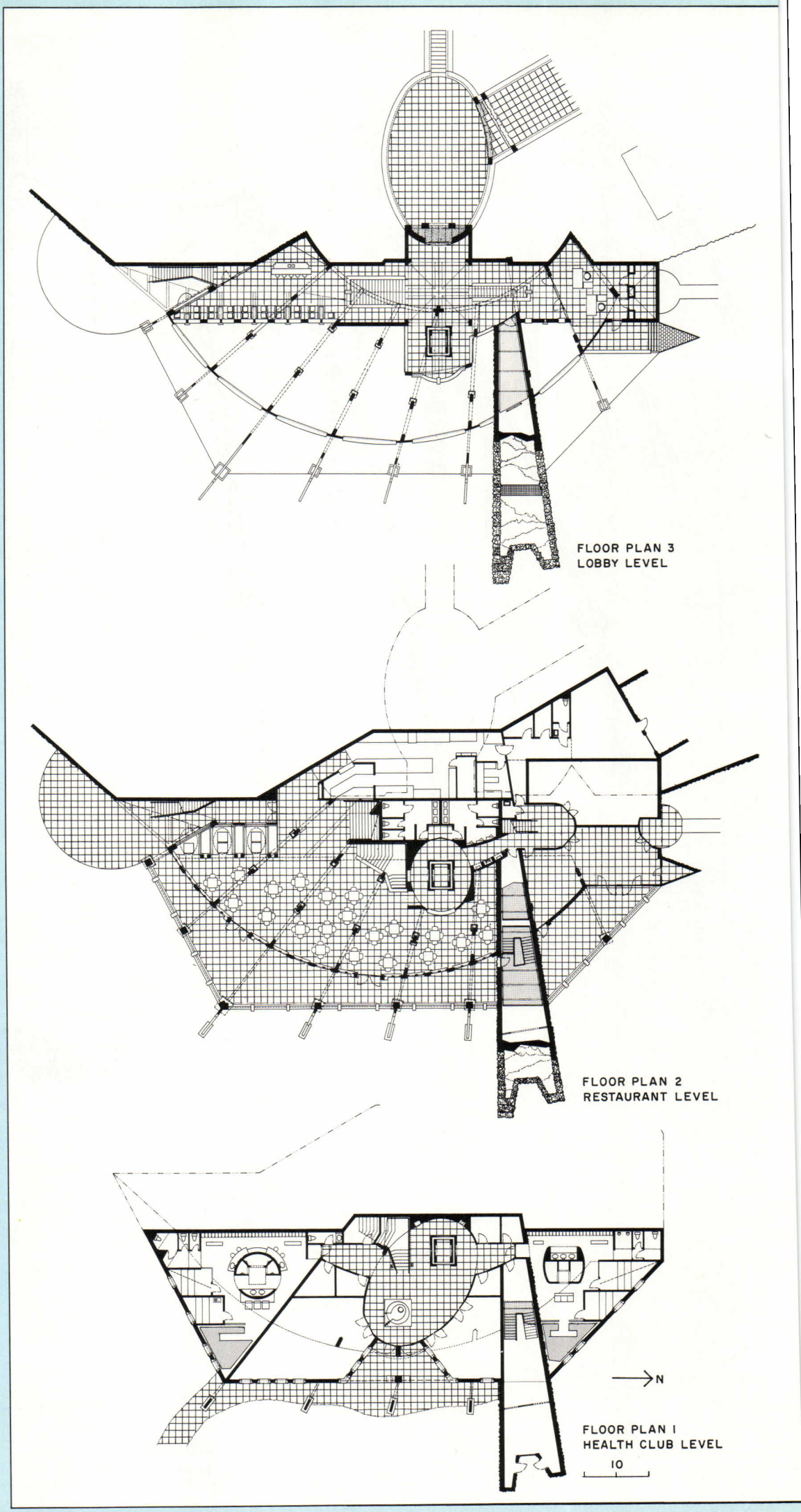
"The health/country club has several goals: to reconcile the character of a diverse natural environment with the rhythm, scale, and symbol of the manmade object; to deal pragmatically (not didactically) with concerns of energy efficiency; and to organize a complex series of programmatic intentions into a functionally and socially intelligent building." The club is composed of several parts. First is the (almost) cruciform lobby/entry piece with shed roof. The plan form reinforces the functional and referential axes that position the building on the site and unite it with key elements in the landscape. In the west-east direction the axis runs from the auto entry to the pedestrian walk, entry plaza, club entry doors/lobby, on to the lake, the island, and beyond. North-south, the axis runs from the center of the lobby through dining/bar and pools to the south, and to offices, meeting rooms and pavilion beyond to the north. The axes cross at (what previously was) a major rock outcropping, pinpointing exactly the cruciform location. Lesser view and/or access lines connect to a fire station high on a hill to the north, the promenade walk from parking to plaza, the initial, hilltop view of the building, and from Mount Analogue (see below) and the health club to the end of the lake. The north-south axis extends formally beyond the cruciform—externally as a lower, partially visible roof shed, and internally as this shed-lid defines the more introverted, less lake-oriented zones of the interior. The cruciform's shed roof is intended to evoke a Chambord-like, country-estate image. This piece will be the only manmade form visible from the entry drive (perspective top right). The second significant component is radial, composed in plan of parts of two nonconcentric curves, yielding a

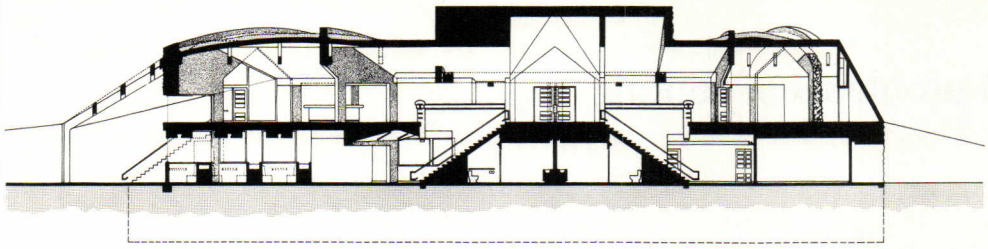
Paul Warchol

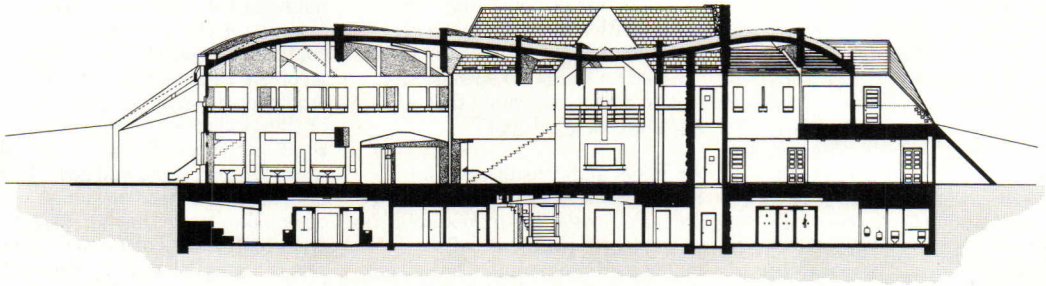


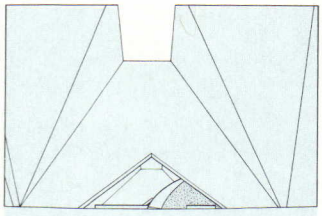
big end at the south (the restaurant), and a small end (meeting rooms, offices) to the north. This curved piece, with its vaulted, sod roof, is buried in the hill on the west, but opens its convex, manmade elevation for restaurant and bar users to the down-slope lake view on the east. From the entry road, the curve appears simply as a tailored part of a larger natural context that runs across the roof as a pattern of sod and flowers to the intersection at the top of the hill from where the building is first seen. The third piece is an analogous mountain, sloping from the sodded, vaulted roof to the walk at the edge of the lake. The "mountain" contains a stair providing circulation from lobby or restaurant to lake edge.

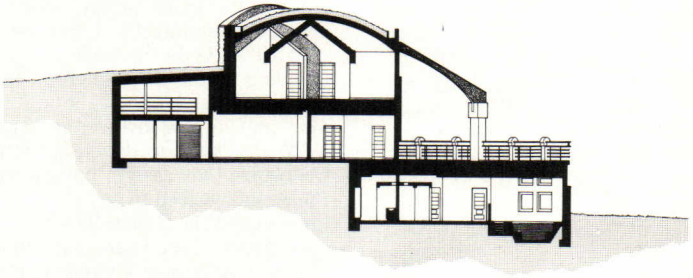
A fourth major part is the trapezoidal plinth (the health club), shoved into the hill on the west, emerging as manmade elevation on the lake side. The health club extends in plan beyond the curved edge of the restaurant to form a dining/drinking/viewing terrace overlooking lake, dam, and island. According to Moss: "The sequence of perceptions as one approaches the club, then enters, is carefully choreographed." Arriving at the development by car, one turns off the main road, then rises quickly to a hilltop. Spread out below in a sequestered, natural bowl formed by the surrounding hills, one sees the cruciform's shed roof, then the lake, island, dam, and hills. Winding toward this hilltop is the pattern of sod and flowers covering the vaulted roof, and running on toward the viewer. Proceeding along the entry road, the club and lake now become only barely perceptible, screened by a line of trees planted along the east roadside. This tree line is abruptly broken at the entry drive to the club proper, where one turns right to view the shed-roofed lobby and entry doors frontally, with entry plaza and walk on axis in the foreground, and the island beyond. One can use the drop-off, or park in the lot to the north, then walk south along the narrowing entry promenade (demarcated at the north end by a small amphitheater) to the plaza, then left, guided by the rotated column, into the lobby. Here a new panorama of island and lake opens, framed by a large window in the concave wall of the curve.

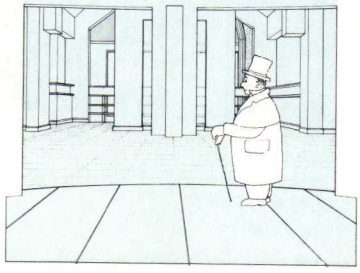


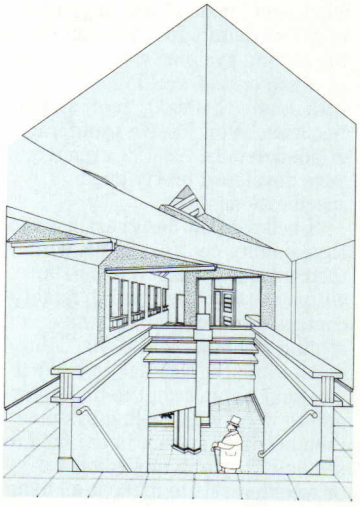


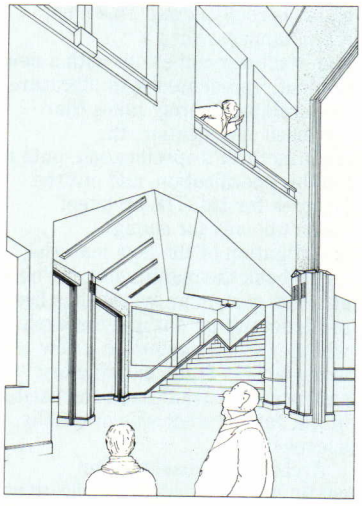


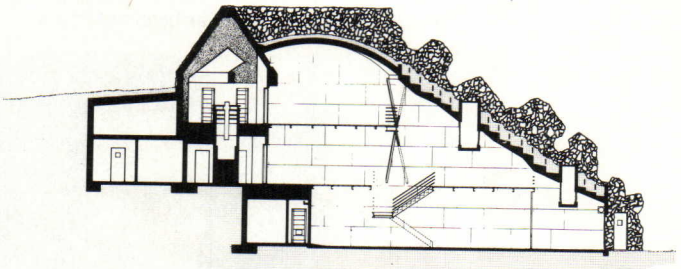


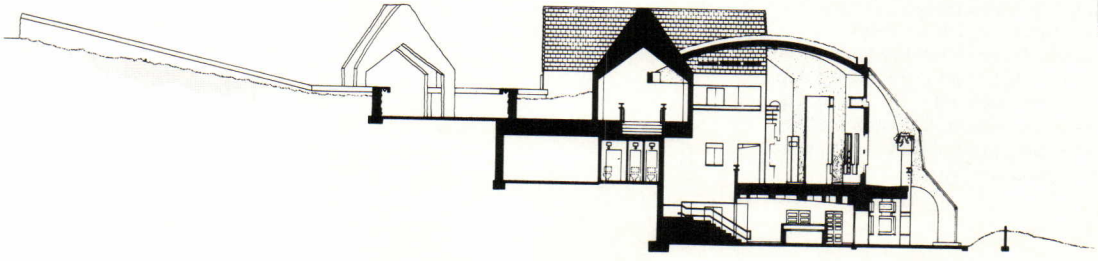












Round Table:
Coping with the perennial problems of roofing

Roofing failure strikes a raw nerve. Everybody knows what a ubiquitous problem it is, but nobody seems to be able to do anything about it.

Building owners have cause for concern: uncontrolled water penetration can ruin insulation, damage interior finishes, even threaten structural integrity. For architects no other problem is responsible for as many professional-liability suits. How then do we keep the water out? ARCHITECTURAL RECORD's 31st Round Table brought together a group of architects, roofing contractors, attorneys and technical consultants to discuss the factors behind successful single-ply and built-up roofing installations as well as those factors likely to contribute to premature failure.

To get the conversation and the thinking started, the Round Table began with a question to which everyone really knows the answer: "Is there a foolproof scenario for design and construction that will guarantee a good roof?"

Architect and consultant John Hoffmann began: "I think the scenario for getting a good roof has to start with the owner of the building. He must make a decision that he is going to insist on getting a good roof. When he selects his architect, no matter how good the firm's reputation is, the owner really ought to investigate whether or not that architect also has the capabilities to do the technical detailing required for the roof. If not, then I think the owner ought to get someone else involved to help.

"With respect to the design firm, the people they assign to work on their roofing need to be knowledgeable. Generally a firm spends two, three years, sometimes longer in designing a building and putting together the inter-relationships of spaces. When that's all out of the way they turn the technical design over to somebody six levels down the line, someone who has never been out of the

Melvin I. Kruger
L. E. Schwartz & Sons, Inc.
Macon, Georgia

office. That's a mistake. It's really important to get someone experienced and knowledgeable in roofing to detail the roof and write the specifications.

"If an architecture firm needs to train someone, there are many avenues available. The Roofing Industry Educational Institute has some programs. Also many manufacturers have training sessions. If the manufacturers don't have one specifically for architects, send architects to the ones for the installers; perhaps they'll get more out of that anyway."

Robert Galloway, specifications manager for Hellmuth, Obata & Kassabaum's St. Louis office, continued: "Yes, the owner must be involved. I have often started with an owner by saying there are a lot of things that we're going to do right on this job; for one, we really want to give you a good roof. I have never found a client who has objected to that. They all want a good roof. I have often told clients this is a good place to spend a little more money, and that the roof is not a good place to compromise—and I have never had a lot of resistance on the point.

"I think John Hoffmann is right: architects do have to give a permanent commitment to understanding roofing. And I think architects have come a long way. I can remember 10 or 15 years ago when architectural drawings had very few details for roofs, and that the roofing systems were defined by a line on the working drawings with a note that said, 'roof' and/or 'see spec.' Now I see a proliferation of good details. A lot of architects have developed pretty good specifications too.

"I believe that designers need to have quality control groups within their firm or at least one person within the firm assigned to quality control. You can go to all the roofing seminars in the world, but I believe an architect has to make a personal commitment to understand and to work with roofing systems, then needs to get out in the field to see how they are applied on a daily or weekly basis to make it all hang together. Time is a factor when you look at being responsible for the whole building. That's why I keep going back to personal commitment. If roof suits account for 30 per cent of professional liability suits, as I believe they do, then we have to give it more time."

Roofing consultant Melvin Kruger continued with the theme of commitment, saying: "The architects who really end up with successful roofs are the ones who have had problems in the past. They address those problems, and no longer have them. Anyone who has had a problem is very, very susceptible to good advice as it relates to roofing."

Said attorney Bruce Lombardo: "I deal in many different types of claims, obviously not just those limited to roofs. But in my experience, I think architects are relying too much on the roofing contractor or, perhaps, the manufacturer. This is one way in which a successful construction scenario breaks down. The manufacturer will come in, make a recommendation for a substitution,

Bruce Lombardo
Harvey, Pennington, Herting & Renneisen, Ltd.
Philadelphia

and the architect will accept it without making sure that the 'or equal' is really equal. This most often happens when a manufacturer comes out with a new product represented with literature. The architect merely takes that proposed specification, the manufacturer's specification, puts it into his specification, and out the job goes for bid. The architect doesn't do any (or enough) investigation of the new material, doesn't ask the manufacturer where else this particular system has been used, doesn't go out and research whether a new system or a new material is in fact a satisfactory substitute for what has been used in the past or what was originally specified."

Architect Michael Gordon continued: "All of the specifications in the world, however, will not yield a good roof without somebody watching and making sure that those specifications are enforced right down to the last line. Who should watch? If the architect is the responsible person for the specifications, he should be watching, he should be paid to watch, and he should have control

over that operation. If he sees something that is being done in a fashion contrary to specification, he should have the authority not only to require its change, but to enforce his decision. The only way that happens is through control over the payment process to the subs.

"Generally, the pieces don't lend themselves to working together. The roofing contractor has a responsibility to put the roof on; he also has a responsibility to stay in business. The architect doesn't get out there all the time because frequently there is a construction manager who's watching the work—how carefully he is watching varies widely with construction managers. The roofing manufacturer doesn't install—his goal is to get you to specify. And manufacturers are leery about leaning too hard on the roofing contractor—who may be a big purchaser. They are not about to give him too hard a time about what he's doing. Yet if the roof does leak, it's not going to be product failure; it's going to most likely be a failure in workmanship. Products don't fail frequently. The range of quality in products is fairly good, and they do what they are generally supposed to do. But when there is failure, everybody is pointing at everybody else.

"So the way this system is set up between manufacturer, architect, installer, general contractor and/or construction manager, it doesn't lend itself to everybody watching the store to see that the end result is a product that's doing what it's supposed to do. I think what we need is a chain of responsibility that starts with product selection and winds up with the installation, not just a separate series of independent events."

Richard Baxter
Carolina Roofing Service
Monroe, North Carolina

The Round Table then focused its attention on workmanship by the architect, and in the field

Roofing consultant Werner Gumpertz began: "Every once in a while somebody asks me how I apportion failures. My guess until recently has been that 75 to 80 per cent are due to workmanship and about 10 to 15 per cent are professional design problems. The remainder have been manufacturers' problems. I have a feeling (and I think this is something we really ought to be concerned about) that this percentage is shifting. I'm seeing more problems related to materials for the simple reason that the single-plies have not been tried as thoroughly as the old materials and systems."

Michael Gordon continued: "I agree that the biggest part of the problem has to do with workmanship. The *reason* for the new kinds of single-ply roofing systems is to get away from the labor intensiveness that typical built-up roofing systems require. Single-ply sheets come in large areas; the seaming is relatively small in comparison to the area covered; the labor involved and, therefore, the chance for error have been substantially reduced. Therefore those new systems have gained popularity. Most of the old concerns still apply: what happens at the site at the end of the day; who is watching the work; what were the pressures on the installer for his bid; what were the pressures by the manufacturer to see that the contractor does it right? I think these concerns have contributed to the advent of the single-ply roof with its relative lack of *labor* for installation."

Said Werner Gumpertz: "Roofers have been a varied and unorganized lot in the past, but NRCA (National Roofing Contractors Association) has done a great deal to professionalize the group. However, the roofing contractor's main problem is this: although the managers, the executives, the owners are very knowledgeable about roofing technology, have the right answers, and many have even contributed to the technology, these men are rarely to be seen on a roof. I think that the biggest problem of the roofers is that they are knowledgeable, but are not where the action is."

Wayne Mullis
Universal Roofers, Inc.
Phoenix, Arizona

Roofing contractor Richard Baxter: "First I'd like to comment on some earlier remarks. They suggest that the architects believe sheet-membrane systems to be much simpler, easier, and less labor intensive than built-up roofs. I don't find that that's true unless you're talking about a large, wide-open roof where you can simply stretch a factory-laminated sheet and ballast it. But the typical roof is not such a simple configuration. We find that our labor factors are every bit as significant with sheet-membrane assemblies as they are with built-up roof assemblies—and much more critical. A lot more checking and rechecking has to go along with single-ply systems. Again, unless it's just a big wide-open space where you can take advantage of some of the large sheets, my experience has been that they are every bit as labor-intensive and in some cases a little more aggravating."

Melvin Kruger: "Whatever the system—whether it be built-up or single-ply—quality application is absolutely essential. But successful roofing requires assurance throughout, and that comes back to commitment. Roofing contractors need internal quality assurance programs in their companies. They need to use communications mechanisms, such as the pre-job conference and inspection to build commitment throughout the whole system. Then we'll get quality roofs, whatever the type. If people communicate, I think that you have a 100 per cent better chance for success."

The Round Table acknowledged the key role specifications play in ensuring success

Roofing contractor Wayne Mullis: "On most of the jobs we have experienced, the architect has often designed a roof and selected a specification without too much forethought. He has discussed the roof with a manufacturer and the manufacturer says, 'Yes, this works. You should use this product.' The architect says, 'Yes, that looks good; we'll use it.' And then he writes it in, whether it's one line or three paragraphs. That's the end of it, and everybody is then left to go out and interpret the specification in whatever way he may. The chain of interpretation comes through the general contractor, to the roofing contractor, to the manufacturer and the inspector, if there is one. So everybody has a little shot at his own opinion about how the roof ought to be done.

"An excellent approach that could be taken, with regard to workmanship, is for the architect to take the responsibility to write the quality control into the specifications. If he will write the prequalifications for the contractors that are to do the work into the specifications, and if he will write the necessity for a pre-job conference among the team players to discuss quality after the job is bid and during the construction process, I think we will have more successes. But the architect and the owner are the ones that must initiate that."

Said John Hoffmann: "If our client permits, very often we specify one particular product. Then we get the manufacturer involved in helping us to detail everything. I think the manufacturers, if they know you are serious about wanting a good roof, are tremendously helpful in putting details together—as are some good roofing contractors."

Referring to specifications, Richard Baxter stated: "A manufacturer can provide a standard section detail for how the elements fit together, and I think that is his responsibility. The manufacturers need to tell us which materials to use and where. In the case of sheet-membrane systems they must tell us the types of adhesives and the special products that must be applied.

"On the other hand, the manufacturer cannot effectively create details for difficult intersections or junctures. It's incumbent upon the designer to solve differences in elevation, termination points, or anything

"All clients want a good roof. Early in the project I suggest we spend a little more money and do it right. I've never had resistence on that point."
Robert Galloway

that's difficult based on the information the manufacturer provides. However, it's incumbent on a contractor who is assuming responsibility for some problem-solving, to come up with shop drawings, or in the case of retrofits, perhaps provide as-built drawings of the conditions."

From auditor Richard Foley: "I agree and I think this is often misunderstood. Architects

Burton Karp
Eagle Moisture Protection Corporation
West Hartford, Connecticut

don't design roofing systems. Roofing manufacturers design them. We're responsible for all the joinery, the expansion, the sheetmetal, intersections, all of those things. But we do not design specific applications. For that there is the manufacturer's specifications.

"I think the architect should have the manufacturer and/or the roofing contractor in to critique his documents before they leave the office. Unfortunately, there are pressures of time that sometimes complicate that, and sometimes you just can't do it."

Burton Karp continued: "Yes, a lot of the single-ply manufacturers have their own perimeter details, penetration details, things of that nature that are part of their systems. So there are no standard details with regard to single-ply products. I too would advise that the architects get the particular manufacturer into their office to review design conditions so they can come up with proper detailing."

On the related issue of manufacturers' guarantees, Werner Gumpertz said: "I have a good name for roof guarantees, I call them parachute guarantees. 'If the parachute doesn't open when you jump, we will give you a new one if you bring it back yourself.'

"I think a guarantee is a bad thing. Canada has given them up. The whole attitude surrounding guarantees is wrong because it gives a sense of false security. Most of the time, when I look at these guarantees, I find they are really not a guarantee at all but a limitation on the responsibility of the people who write the guarantee. To some extent, the owner and roofer would be better off without a guarantee from the manufacturer because the manufacturer is still subject to the common law. What the law implies is much better than a written guarantee, which is really an abandonment of responsibility. What I consider to be worse, however, is that the owner usually looks primarily for a guarantee and not for a roof."

Bruce Lombardo continued on guarantees: "Guarantees are a means to sell the building. A manufacturer will use it as a marketing device in order to promote his own product. I think no one really looks at what the terms of the guarantee are in the beginning. When a problem develops two, three, four years down the line, when you pull out the guarantee and you look at it, you find that in many instances it's not really worth the paper it's written on. There are so many exclusions and so many ways in which either a manufacturer, or whoever gives the guarantee, can escape the terms of the guarantee that it's a meaningless thing."

Built-up and single-ply systems were then compared

Melvin Kruger: "Interestingly, and it depends on whose figures you use, somewhere around 60 to 65 per cent of the market share is still for built-up roofs. There are some areas of the country where that number is much more evenhanded, 50-50. The ironic thing is that today the technology in built-up roofing has come to the point where most specifiers, contractors, and consultants feel very comfortable with the materials that are being utilized for this roofing type. Of course, what happened, in the mid-'60s and early '70s was that new built-up roofing systems were introduced. Contractors applied them in exactly the same way they had been applying successful roofs for years. Because the materials were oversold, a rash of roofing problems occurred for everybody connected.

"I think that we have profited from many of those mistakes. For example the application of insulation is understood in a much better fashion. We recognize that two-layer application is a good system if you mechanically attach the first layer to avoid the splitting phenomena. Today, we seldom apply roofs in only two plies for built-up roof systems—most of them are three- and four-ply systems with good quality, inorganic membranes possessing high-tensile strength. Given the kind of cooperation that it takes to get good roof systems, there is no question that built-up roofing is a viable, solid roof system that can and will perform long-term."

Burton Karp agreed, and went on to comment on single-plies: "I'm afraid we are going to repeat with many single-plies some of the bad experiences of the past where products were marketed beyond their originally intended use. EPDM's were originally intended to be loosely laid and ballasted so every part of the system could move by itself—an excellent concept. Now, because of weight limitations, which in turn limit their market, we began to fully adhere or mechanically attach single-ply systems. In the future I think some of these techniques will cause our next round of major problems. I think too many systems are being market-driven rather than technology-driven."

Continuing the debate over single-ply versus built-up roofs, Richard Baxter said: "One of the things that made us question built-up roofing membranes was the problem of blistering and interply

Robert Galloway
Hellmuth, Obata & Kassabaum, Inc.
St. Louis

separation. The coated organic sheets were very prone to release moisture during installation. Furthermore, there were inadequate provisions for ventilation during the time of installation. We therefore had a massive rash of blister-related roof problems. Blisters in themselves are not necessarily bad; however, that was the tree behind which the fox hid when things started going wrong. But the architect who specified organic sheets as equals, the contractors who installed them as equals, the owners who accepted them as equals discovered within a very short period of time that there were some serious mistakes made.

"I think that particular round of experiences, involving some very reputable manufacturers, probably did more toward reducing the share of market of the built-up roof than anything else. I can make a great case for sheet-membrane systems if I go and say, 'Look, Mr. Owner, there is no possible way that single-ply can separate and blister. That's what you had wrong with your old roof. If you put on a built-up roof, you are going to have the same thing over again.' However, it is of course true that the glass-fiber reinforcing materials incorporated in most built-up roofs today are much less prone to the kind of blistering and separation phenomenon. But we had to learn the hard way.

"So we made some adjustments, but mostly we went back to pitch and gravel because they supposedly last forever—in fact, a lot of them have lasted a long time. But relying on an existing technology is not necessarily a good response to a problem. Coal tar-pitch and gravel roofs certainly have a place in this world; as do asphalt membranes, and modified bitumens. But I think that we're finding a turnaround. We're seeing more and more problems with sheet membranes, and they are not because of the sheet membranes themselves or the properties of those membranes as much as the way we're being told that we can use them. Fastener technology, for instance, which typically has been our primary mode of failure with the mechanically attached systems, is

"All the specifications in the world will not yield a good roof without someone watching and *making sure that those specifications are enforced down to the last line."*
Michael B. Gordon

Werner Gumpertz
Simpson Gumpertz & Heger
Arlington, Massachusetts

progressing very rapidly. We still don't have all the answers, nor do the fastener manufacturers pretend to have them—they realize that there is an Achilles' heel. They are doing everything they can to correct that. In the meantime we're going to have a lot of roofs that will be in the next county when the fasteners fail or corrode.

"So I think that the blister phenomenon is what has led to the onset of sheet systems. That and the economics. At one time the built-up roof was very inexpensive because asphalt was $12 a ton. Now it's $250 a ton, or $400 for pitch, making the sheet-membrane systems economically viable."

Michael Gordon: "I think that the single-ply roof gives us an opportunity to solve a lot of problems involving complex roofing configuration much neater and cleaner and with less chance of failure than the built-up roof. I also think the selection of a roofing system and materials is a function of who is going to be building the project and what contractors are available in the area. Whether the roof is truly the roof of the building or whether it's the waterproofing under a plaza has some influence on how you go about choosing the proper system and/or materials to do the job."

Said architect Raymond Stainback: "Since it really seems like the major topic of discussion is the difference between built-up and single-ply systems, I would say the following: roughly 10 years ago the PVCs made their first appearance. We were very interested in them from the beginning. The single-point responsibility of the one-ply systems was terribly attractive. We looked in Europe to find out about their performance history, and we found they had been working for 10 to 20 years successfully. So gradually we talked to our clients. They too were interested. We started using the single-plies about eight years ago, and I think we're going to start seeing over the next five years what kind of successes those systems enjoy. I see already that some clients who do a lot of construction are beginning to get a little leery."

Referring specifically to selecting a system and its components, Richard Baxter said: "Of course it's important initially to select a combination of materials that gives the best chance of making a roof system work. There are a variety of available materials, some of which do very nicely with certain kinds of roofing membranes and others that do not work well with the same type of roofing assembly. One problem is that we have a tendency to assume, when a manufacturer or supplier's representative comes to us with an equal, that that material is in fact an equal when in fact it may not be. Substitutions may require a change in the basic materials to ensure that the combination of ingredients initially specified function. For instance, take expanded polystyrenes or extruded polystyrene plastics. They can be used effectively with hot built-up roofing systems, but they have to be used carefully because they are very heat sensitive. (If hot bitumen gets to the polystyrene, it tends to degrade very badly.) Urethane foams are another example. We have had a great deal of problems with the blistering of built-up roofing membranes or hot built-up roofing membranes applied directly over urethane foam. It doesn't happen all the time, but it happens in a majority of cases. Therefore we compensate by using a more stable insulating material. Yet we can take the urethane board that is troublesome for built-up roofs, and run it under a rubber sheet-membrane assembly and never have to worry about blistering problems. But then dimensional stability becomes a factor. The attachment of the insulation board to minimize the cupping and warping that sometimes goes along with plastic foam is more critical. As a suitable substitution, you might use a superinsulation technique and not have to worry about the membrane, the blistering or whatever else, because you eliminate the overlay layer. However, if you are putting a hot roof over a superinsulation, you best have the overlay layer to ensure that you are not going to have associated separation problems.

"In part, it's a question of where to use which system. We do a lot of built-up roofing. We do very little coal tar-pitch work. We will however, use coal tar-pitch in places like the textile industry where the asphalt is apt to be eaten up by the petrochemicals that are discharged onto the roof. Certainly asphalt is not a good choice there. If I am looking for an abuse-resistant assembly, certainly a four-ply, built-up roof with three-eighths to a half-inch thickness is better than a 45-mill single-ply sheet. On the other hand, with EPDMs being susceptible to petrochemical degradation, the last thing in the world I would choose for a roofing system in a petrochemical environment would be rubber. Now, the PVCs have different kinds of chemical resistance, and in the environments just mentioned, they would have a much better chance of survival.

"If I were using the roof as a work surface, as many of our customers do, then the most abuse-resistant and cost-effective roofs in

Michael B. Gordon, AIA
Environetics International, Inc.
New York City

many cases are the modified bituminous systems. There systems have excellent puncture resistance, relative ease of installation and versatility, especially with the SPS modified sheets. The protected membrane is another option. It's not a different roofing membrane, but certainly a different concept in heavily trafficked areas.

"But even when appropriate systems and materials are selected, again, quality control is imperative. Not only control from the manufacturer's standpoint, but from the contractor's standpoint. The fact is that manufacturers produce products with a 95 per cent probability that everything will be within the manufacturing specifications and tolerances outlined. That means that 5 per cent of the products going to the field are not within the criteria. The last numbers I saw on the United States roofing market were that something in the neighborhood of 2.5 billion square feet of roof are applied each year. Now, 5 per cent of 2.5 billion is a chunk of roof and usually you get the entire 5 per cent on one job.

"Quality control must continue from the time the materials are produced until the time they are finally in place. I think that we have a tendency to oversimplify this business and assume that we can stop quality control after the materials are delivered. In fact, storage and handling affect quality characteristics. You must monitor and evaluate the material during the time of installation. We have been able to do that successfully with bituminous products. With more sophisticated chemical-related products, such as sheet membranes, it is very difficult for the average roofing mechanic to look at the material and say it is not right. It becomes difficult to wave the flag, to shut the job down with the roof half finished and say the materials aren't doing what they ought to be doing; because it takes time for the manufacturer's representative to get to the job to make that determination. Consequently there's a breach in the quality control process that occurs during installation."

William Cullen: "Many of us don't realize how many systems are out there. If we consider a built-up roof system as a combination of deck, vapor retarder (or not), insulation, and a membrane, I have some numbers that were taken from NRCA's recent guidebook: for insulations alone there are 56 manufacturers and suppliers. Many of these have generic type insulations. There are 79

"Guarantees don't keep water out of buildings."
Melvin I. Kruger

manufacturers of membrane materials who together publish 222 built-up roofing specifications. There are 99 modified bitumen specifications published, and 39 other single-plies beyond that group. Incidentally, those are the only the ones listed in the guide."

From the problems of specifying, the Round Table turned to workmanship with regard to "specifying" contractors

Wayne Mullis: "I advocate the pre-qualifications of roofing contractors. It would be good if architects would put the prequalifications for the roofing contractor right into the specifications. If I were an architect specifying three manufacturers, I would ask those manufacturers: who their installers are; do *you* pre-qualify them; and if you do pre-qualify them, what are your criteria for their qualifications? Asking these questions will clear up a lot of things in the specifications, and can certainly produce better results."

Michael Gordon: "Probably first and foremost in selecting a contractor is satisfactory experience with the kind of roofing system you want. The contractor should be prepared to make the effort to do it right the first time to avoid coming back and dealing with it over and over again. That's the rare case. It's more likely that the work gets bid and you have very little choice about who the roofing contractor is.

"When a general contractor is selecting the subcontractor, he bases his choice on what he thinks is the minimum he could get away with based on dollars. He's looking at, in a certain sense, the least qualified guy who can do the job and keep it dry. There are construction managers and owners who will not go that way. They'll look for quality up and down the line because they know that in the long run that's the best outlook. But with competitive bid work, which is not controllable through either the architect or general contractor, we're always a little frightened about who is going to bid the job and if we are going to be happy with the lowest qualified bidder.

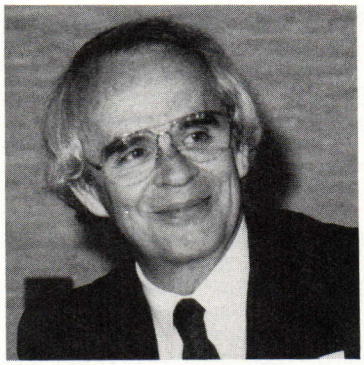
John M. Devaney
Wagner, Hohns, Inglis, Inc.
Leawood, Kansas

"I think that the architect will have some control when he can say to an owner, 'Look, this is the contractor for us to use because he's done this kind of work before, because he's been in business for a long time, because he stands behind the roof regardless of the system that we're going with.' That's not often the case because the best qualified roofer is not usually (indeed not often) the low bidder. However, the better contractor may, in the long term, produce the least expensive roof. But for the short term the best qualified is probably not going to be the person that is selected.

"Construction managers, unfortunately, have a great deal of influence with owners because they control money and are looking towards the next project. And they sometimes owe somebody a favor from the last job, or they are looking toward the right price for the next job, and they will frequently recommend a subcontractor for reasons other than highest quality. This adds to the problem as well."

Roofing contractor Melvin Kruger: "There are objective criteria that can and should be specified to prequalify roofing contractors and that allows for competitive bids, such as experience, their financial stability, and ability to supervise. No one would think of building a building without adequate supervision. Yet there is no established criteria that say a roofing contractor should have a supervisor on the job. You cannot expect an architect or general contractor of a job to watch everything that goes on. Our firm and many others have a non-working superintendent on every job to maintain quality assurance. That's his primary responsibility."

Recounts contractor Wayne Mullis: "Recently we had a job in Arizona for a major owner from Chicago. He wished to build a big plant and had experienced a lot of trouble with roofing before. He therefore wrote a roofing specification and compiled a list of seven contractors that he wanted to interview. He asked every contractor to fill out the standard AIA prequalification form. Then he asked to make a visit to three of the jobs that each contractor had done and three that were under way. He asked to look at their facilities and at their equipment and to talk to three of their supervisors. He then sent his representatives to do the investigations. Out of seven contractors, they selected three to bid. The bids were within 3 per cent of each other for the job.



Raymond F. Stainback, Jr., FAIA
Thompson, Ventulett & Stainback & Associates, Inc.
Atlanta

"You see, a contractor that can do a job for 30,000 square feet isn't necessarily the same contractor that could do one for 330,000 square feet. It takes different kinds of equipment, different sorts of expertise. I think those things are easily ascertained by anybody who wants to make a serious inquiry.

"How does the contractor maintain quality control and supervision? That's pretty easy to find that out. Most important is the contractor's reputation. The state of Arizona licenses contractors. In Maricopa County where I live (which encompasses Phoenix), there are 200 of the state's 275 licensed roofing contractors. So, of course, a contractor with a good reputation works to keep it. Someone who just entered the business basically doesn't have anything to lose. One should ask, is the contractor a good corporate citizen? Is he participating in the community? Is he doing something about continuing education? I don't think these questions are hard to answer. When you make good inquiries you will begin to get better results."

A discussion on architects' liability was then sparked

Attorney Bruce Lombardo: "Ray Stainback mentioned architects taking the responsibility for the quality control by seeing that the roof is put down in accordance with the plans and specifications. On that score, I have two observations: First, I find owners are not willing to pay the architect to have a clerk-of-the-works on the site on a full-time basis. Therefore, the architect may only be out there weekly or biweekly for two or three hours. Under those circumstances, the architect is making a statement that can possibly bring liability crashing down on the firm—he is really saying that he has the ultimate responsibility. But in practice you can't fulfill the ultimate responsibility if you are not physically there to do it. I can't see how the architect would accept that responsibility unless he's paid for it.

"The second observation is really a question. I wonder whether most architects have sufficient experience to tell whether the roof is being put on in accordance with the plans and specifications. This is especially true with regard to the new systems that are being brought out today.

"With regard to new systems, I think if at all possible, reliance should be placed on the manufacturer's representative. With regard to more traditional concepts or traditional systems, I would look to the general contractor, more specifically the roofing subcontractor, to see that the work is being done properly. As Mel Kruger pointed out, the superintendent should be out there on a daily basis, as his sole job. I don't see how the quality control could be brought about by an architect being on the site weekly or biweekly.

"So the liability problem, as I see it, is when the architect does go on the job site, he takes on an implied responsibility. Often the courts

"Some people believe applying a roof is a science. It is not. It's a building-trades art."
Wayne Mullis

expect the architect to assume full supervisory duty if he is there at all. The theory is that if the architect was on the job site he had the opportunity to see what was going on. If defective workmanship is alleged, and say that's the only allegation, the architect still has potential liability to the owner because he is the owner's representative according to his contract and the standard AIA agreements—although the architect, under many state laws, has the right to seek indemnity if in fact there was a workmanship defect from the roofing contractor. Then again, if the architect was on the job site—perhaps on the roof on only three or four occasions—the court may hold that he had the opportunity to see the alleged defective workmanship, and had a duty to guard the owner against those defects and deficiencies.

"I am not necessarily saying that liability *will* be imposed on the architect, but it does create exposure and the possibility of lengthy litigation with subsequent loss of time by the architect who must defend himself in the case."

Attorney John Devaney then said: "I was involved with the AIA in 1976 when we issued A-201. There is

William C. Cullen
Potomac, Maryland

a philosophical argument that went on at that time and continues today. The argument has two aspects. One is that each of the professionals that is on the construction project has a responsibility to positively and aggressively fulfill his responsibilities. This is what you are paid by the owner to accomplish. If you are a contractor, a subcontractor, or a design professional, you have to aggressively go out and handle the job. The other aspect, or elements of the philosophical argument, is that there is a tendency to try to eliminate liability to a certain extent. One of the areas that shows up in the standard form documents is the reversion, or elimination, of the word 'inspection' from the architect's responsibility, substituting 'periodic on-site observation to generally observe.'

"It's a philosophical question, again, of how you want to attack the problem. I think on the positive end, you have to exercise your professional expertise. But you don't want to exercise it in areas where you do not have it. The other aspect of that equation is that you are to a large extent protected from liability as a design professional by your liability carrier. And your liability carrier relies on the standard form agreements to establish risks. It may be that if you positively attack and act to guarantee work completed, you will lose your liability coverage. You want to do a good professional job and aggressively provide good professional services. And it may well be that such people don't have problems because they have pursued possible problems aggressively. But when you are aggressive, you may have realigned the risks that are established in the forms. You may suffer substantial liability based on your aggressive approach."

Attorney John Devaney continued: "My firm commissioned a survey of building owners—public, nonprofit and private—about 500 owners in all, who had building construction in excess of $10 million. Of that group, 59 per cent indicated that leakage of roofs was a major problem in their construction—and that's both rehab and new construction. Of the 59 per cent who experienced roofing difficulties, 63 per cent of those solved their problem in litigation, which of course is not the place to solve the problems. Incidentally, the incidence of litigation for other construction defects was 25 to 30 per cent."

In a final round robin, the panelists offered some philosophy, and some final comments

Raymond Stainback: "In our country we have never built anything to last very long because

John J. Hoffmann, AIA
Hoffmann Architects
Hamden, Connecticut

it's to our benefit to have things wear out and be replaced. That makes jobs and it makes business at home and abroad; and that philosophy is as American as apple pie. But. . . this attitude runs in conflict with the whole concept of the architectural view of building. We architects like to build forever. We want to be remembered by the monuments that we created and by the quality of our civilization as it was measured by the communities of buildings that we put up. I think that puts us a little bit in conflict with the American business ethic and does tend to sustain the perennial problem of roofing."

Wayne Mullis: "We talked about prequalification, and I think we could probably talk a lot more about that. If all projects were fortunate enough to have the very best contractors on the job, then better results would be produced. The design community has to do something about prequalifying contractors. We believe pre-qualifying can easily be done if it's based on experience. If that's written in the specifications and in the bid documents, then experienced contractors are going to bid the work. We can make it happen, but it's going to take initiative on somebody's part besides the contractors."

Bruce Lombardo: "I think it's most interesting how the technology, even with respect to traditional methods of roofing, is changing. Apparently these changes are taking place every day and it affects roofs that are designed one year and put on two years later.

"With respect to new systems, I don't think an architect should specify systems without thoroughly researching what experience the manufacturer has had with that particular system. And, I believe that it's important and incumbent upon the architect to get the manufacturer involved in the design process. The manufacturer should look at the design drawings, review the specifications, and if possible even *approve* the architect's design for the purpose intended. I don't know how many manufacturers are willing to do that, but as long as the marketplace wants architects to use new systems, the marketplace should to a certain extent protect the architect in making sure that he is specifying the product and designing his roof system in the proper manner."

John Devaney: "A lot of what I do within our firm is called 'dispute resolution.' Sometimes we do it after the fact and sometimes we do it during the construction process. The first thing I like to keep in mind in our work with disputes is that construction is still an art, not a science. And as Burt Karp said, common sense goes a long way to resolve those items that need to be resolved. The one thing that we stress is that disputes shouldn't leave the job site. You don't want to have a situation where third parties are making business decisions for you, and I believe all of you would agree to that."

Burton Karp: "Today, throughout the whole session, there was an overriding theme as far as I am concerned, and that's common sense based on our past experience. We can't overlook or underestimate that. I think if more common sense is used and we use systems with proven track records—manufacturers who have a commitment and integrity—we are on our way to greater success. It is also important to have teamwork. The contractor, the owner, or the architect, every single segment plays an important part. One weakness in that group and we have got a sure failure as far as the roof is concerned." *D. R.*

New products

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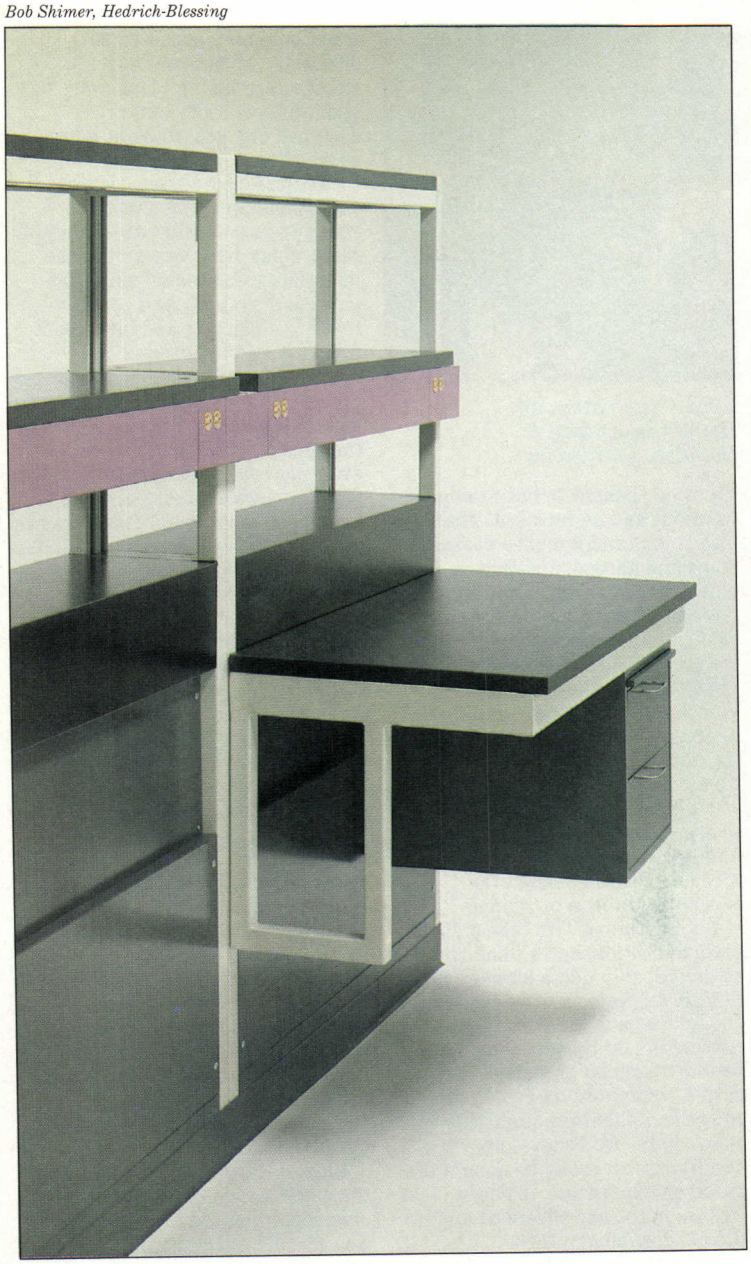
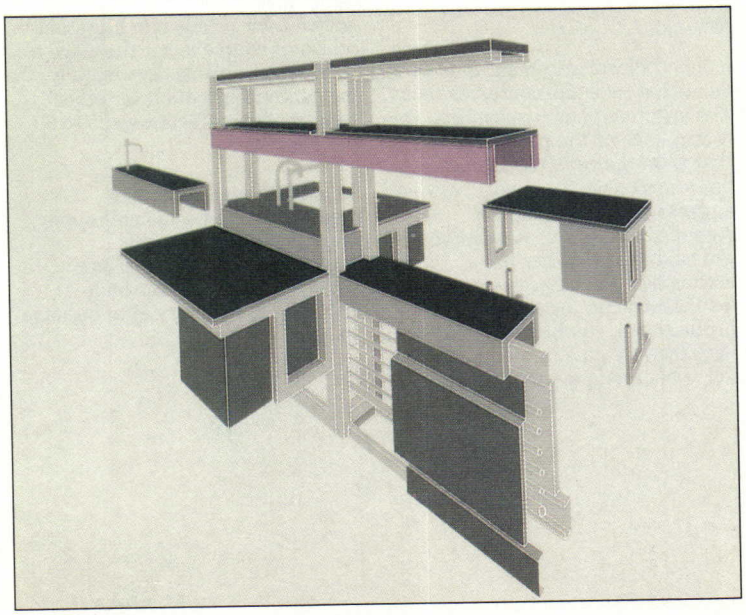
Bob Shimer, Hedrich-Blessing





Clinically correct
The *Labmarc* system was initially developed by Architectural Resources Cambridge for the new Chicago laboratory of MetPath, a large diagnostic testing company that needed furniture durable enough to accommodate its daily workload—an average of 15 tests on 45,000 samples—and flexible enough to adapt to periodic changes in laboratory layout and function. In response to these requirements, the architects devised a modular system consisting of a rectangular utility module and dependent components, which are now available on a commercial basis. The basic module is made up of units 4 ft long by 6 ft high that carry necessary plumbing and wiring—concealed by removable panels—along the bottom half, with storage shelves above. Any combination of component units, including adjustable-height work surfaces, cabinets, drawers, sinks, and fume hoods, can be attached to the module. The channeled framework is constructed of steel and painted with an acid- and solvent-resistant enamel finish. All components are screwed onto brackets connected to the frame, and shelves and work surfaces are available with laminate, resin epoxy, polypropylene, stainless steel, wood, and artificial stone finishes, depending on a specific laboratory's need. The framework and the component units are self-supporting, so the entire system is freestanding, except for full-size floor cabinets and fume cupboards that are mounted against the wall. Labmarc/Architectural Resources Cambridge Inc., Cambridge, Mass.
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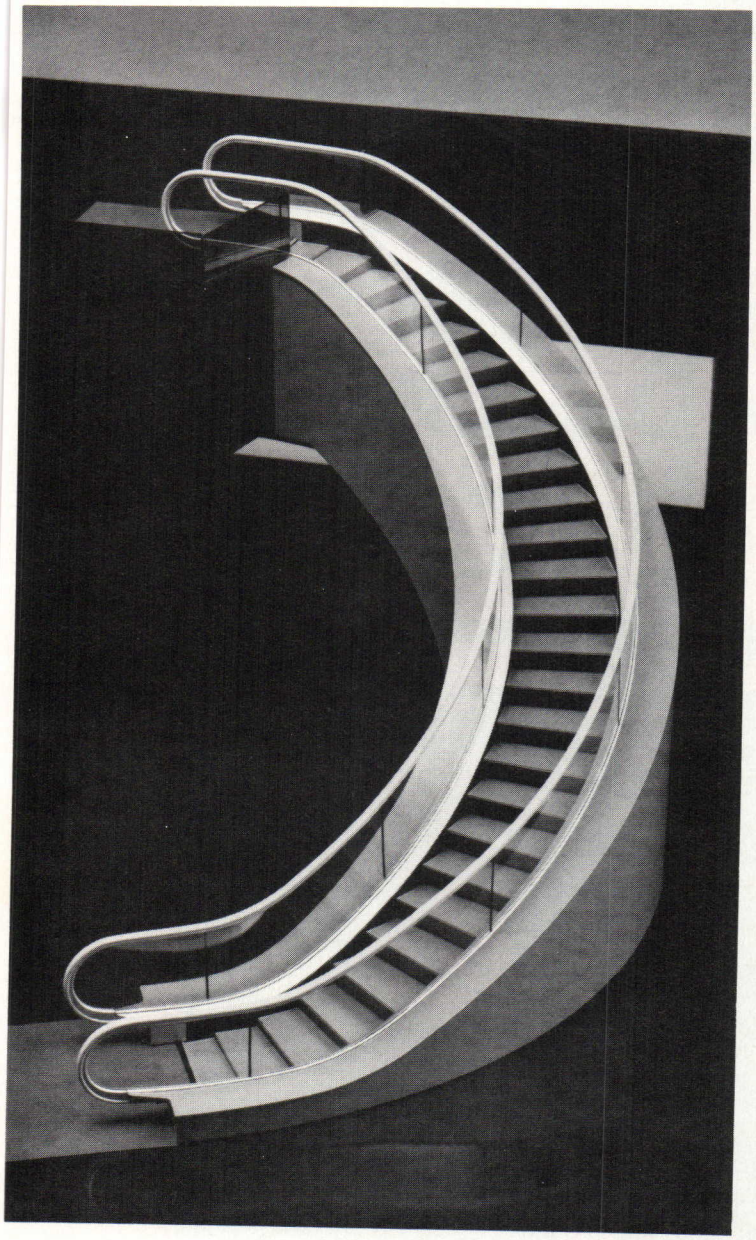

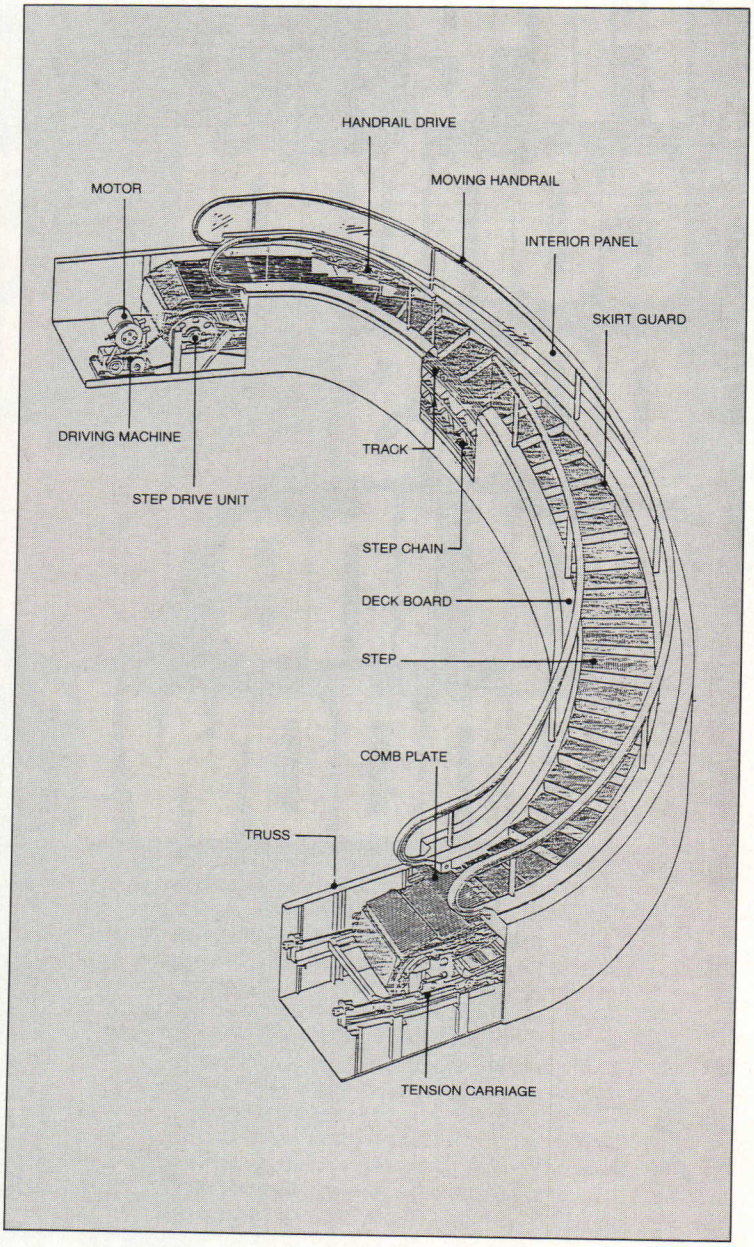

Up and around

For those who ride up and down linear escalators without thinking much about the technology behind them, Mitsubishi Electric has introduced to the American market a spiral escalator that may draw new attention to the over-all engineering complexities involved in the design of moving stairs.

Mitsubishi had to overcome several laws of physics in order to solve the dilemma of how to rise along a three-dimensional curve.

In addition to acting as the connecting link between two or more levels, a spiral escalator must also transport its passengers around the helical form without pushing them against the handrails or forcing them off a moving tread as it narrows at each turn. The manufacturer's previous attempts to design such escalators had assumed that in order to maintain a fixed relation from one step to the next, their speed would have to be varied where the inclined and horizontal planes met. And it was thought that the two handrails would also have to operate at different speeds to synchronize with the twisting steps. But after several years of research and experimentation, Mitsubishi has developed a mechanism that effectively manages the above problems. By varying the spiral's radius of curvature to align the upper and lower landing zones, the intermediate inclined zone, and the transition zones in between, the treads can be kept horizontal to one another and, along with both handrails, rise up the curve at a constant speed.

Mitsubishi Electric,
Mt. Prospect, Ill.

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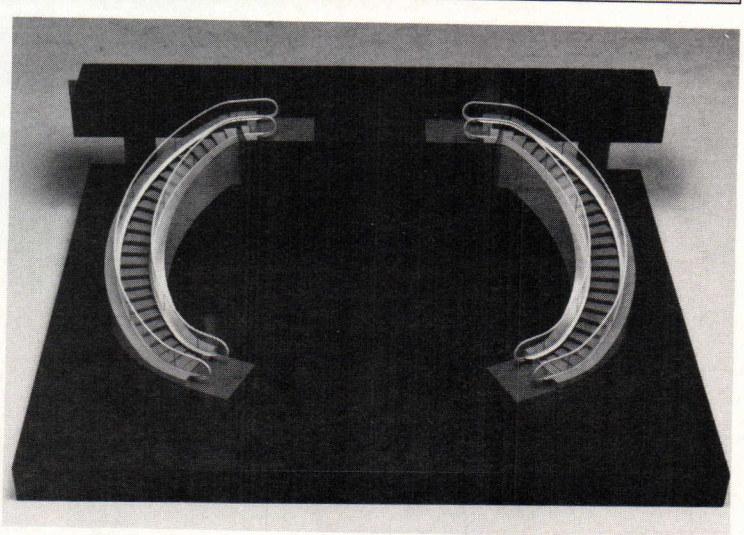

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Product literature

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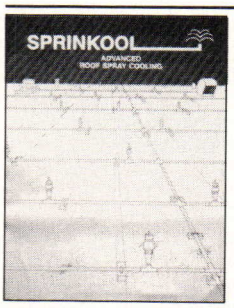

Roof-cooling system
A roof-cooling system that intermittently sprays the roof surface with water, allowing it to "sweat" away heat from the sun's radiation, is featured in an 8-page brochure. The effectiveness, cost, and benefits of the system are reviewed in the literature. Sprinkool Systems, Inc., Atlanta.
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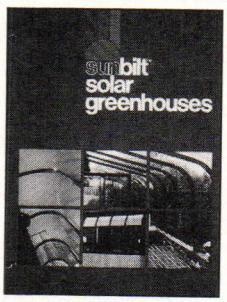

Greenhouses
Sunbilt prefabricated solar greenhouses, constructed of tubular aluminum members and 1-in. tempered glass, are featured in a 6-page color brochure. Diagrams of construction details, including headers, cross bars, rafters, and sills, are contained in the literature. Sussman Inc., Jamaica, N. Y.
Circle 401 on reader service card

Insulation
A 4-page color brochure features *Styrofoam Lightguard* roofing insulation. Photos of the 2- by 4-ft panels with a 3/8-in. modified concrete facing are included in the literature. A chart lists the thermal conductivity and resistance of the insulation. Dow Chemical Co., Midland, Mich.
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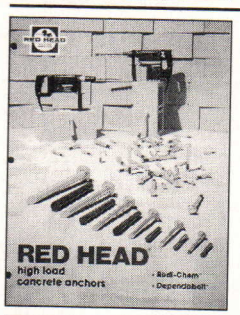

Concrete anchors
The *Redi-Chem* concrete anchoring system, which consists of a threaded anchor rod, a chemical capsule, and an installation tool, is featured in a 6-page brochure. Common applications, including the re-anchoring of brick facades to concrete-block walls, are reviewed in the literature. ITT Phillips Drill Div., Michigan City, Ind.
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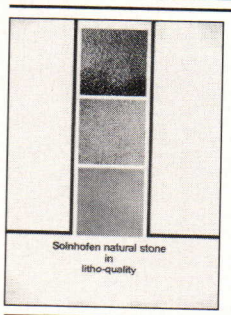

Stone
A line of West German stone intended for flooring, wall surfaces, and a variety of outdoor applications is featured in an 8-page brochure. Diagrams show several suggested ways for laying the stone. Technical data are included. Solnhofen Natural Stone, Inc., San Francisco.
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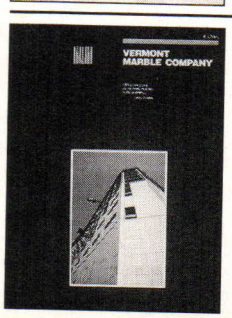

Marble
An 8-page color brochure reviews common marble applications and the manufacturer's marble installation systems, including the *ISR* (individual support and retention) and open-joint veneer systems. Twelve varieties of marble are shown in the literature. Vermont Marble Co., Proctor, Vt.
Circle 405 on reader service card

Skylight system
A new four-sided skylight system is described in a 4-page color brochure. The glass is held in place by a structural sealant and not by exterior retainer caps, allowing the water to run down the outer surface of the glass. Other benefits of the installation procedures are reviewed. Super Sky Products, Inc., Mequon, Wis.
Circle 406 on reader service card

Vinyl flooring
The manufacturer's commercial sheet vinyl floor covering is featured in a 6-page color brochure. The durability, stain and indentation resistance, and dimensional stability of the flooring are discussed in the literature. Twenty colors are shown. Forbo North America, Lancaster, Pa.
Circle 407 on reader service card

Precast decks
A 12-page color brochure describes how the manufacturer's precast floor and roof decks were used in three projects with central atriums and surrounding balconies. The general construction advantages of precast decks in cold weather conditions are also reviewed. The Flexicore Co., Inc., Dayton, Ohio.
Circle 408 on reader service card

Rolling doors
A line of rolling doors, grilles, fire doors, and counter doors is illustrated in a 28-page color brochure. The standard features, operation, and construction of each product are reviewed in the literature. Specifications are included. The Cookson Co., Gastonia, N. C.
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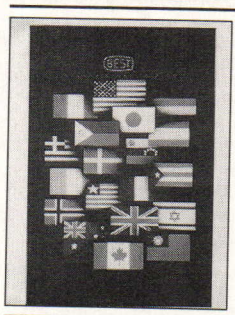
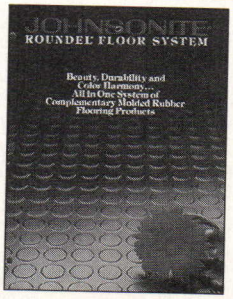


Locks
A 24-page color brochure reviews the manufacturer's line of interchangeable core locks, including padlocks, mortise locks, tubular deadbolts, and key-in-knob cylindricals. Available trims and finishes are listed in the literature. Best Lock Corp., Indianapolis.
Circle 410 on reader service card



Rubber floor tiles
The *Roundel* system of raised disc rubber floor and edge tiles is featured in a 6-page color brochure that also shows a coordinating line of stair treads, risers, and stringers. The tiles are 23 3/4 in. sq and 3/16 in. thick, with 0.05-in. raised discs. The Johnson Rubber Co., Middlefield, Ohio.
Circle 411 on reader service card
continued

Steelcase, the leading manufacturer of office furniture systems, has found the perfect location in New York to expand its office environment philosophy.

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When Center One opens, the dazzling array of Steelcase furniture will be displayed, beautifully and functionally, in bright, efficient and practical space. There, Steelcase dealers, designers, architects, facility planners and clients will be able to see the workplace solutions that are part of the Steelcase *basix* program. They will also share Steelcase's unique understanding of computer-assisted facility planning, design and management.

There are many good reasons why Steelcase is making Center One at IDCNY a premier showcase. You'll find IDCNY the perfect environment for sales. One that is sure to be the focal point of activity, the forum for ideas and the best place to do business for the entire contract furnishings industry.

Steelcase is already a go for Center One. Isn't it time you joined the Office Environment Company and their newest division Stow & Davis, and these other prestigious firms?

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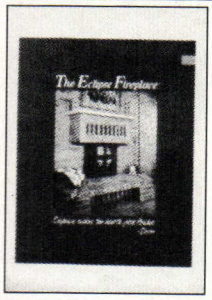
Steelcase: All Systems Go.

Circle 68 on inquiry card

Product literature *continued*

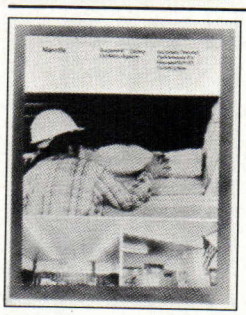
For more information, circle item numbers on Reader Service Card



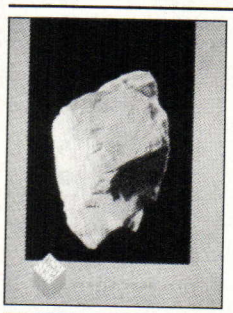
Fireplace
Several features of the *Eclipse* cast-iron fireplace are reviewed in a 6-page color brochure. The unit is able to control the rate of combustion by throttling the air supply and, as a result, can maintain an unattended fire for over eight hours. Dovre, Inc., Aurora, Ill.
Circle 412 on reader service card

Vinyl siding
An 8-page color brochure reviews the manufacturer's vinyl siding intended for residential applications. The siding is said to resist water and insect damage. Horizontal 8-in., and double 4-in. and 5-in. lines are shown in the literature. Gold Bond Building Products, Charlotte, N. C.
Circle 413 on reader service card

Shade
The manufacturer's fabric shade, which is said to block 95 per cent of the sun's heat, is featured in a 4-page color brochure. Other benefits of the shade, including its resistance to rotting and weathering, are reviewed in the literature. 3-S Haluscreen, Rancho Cordova, Calif.
Circle 414 on reader service card



Ceiling insulation
A 4-page color brochure reviews retrofit and new-construction applications for the manufacturer's *Suspend-R* ceiling insulation system. The system's three major components, including semi-rigid fiberglass boards, fiberglass batts, and a metallic grid, are described in the literature. Manville, Denver.
Circle 415 on reader service card



Marble
A 6-page color brochure contains a map of Italy that locates the country's different marble-producing regions. The characteristics of each region's marble are reviewed in the text. Definitions of basic marble-related terms are also included in the literature. Italian Marble Center, New York City.
Circle 416 on reader service card

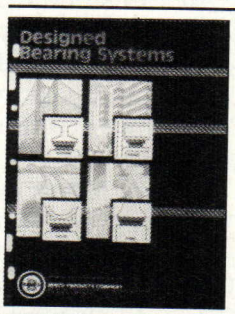
Cooling towers
The manufacturer's line of cooling towers, which can be installed indoors, underground, on rooftops, or freestanding, are described in an 8-page brochure. Technical data on the tower components and mechanical specifications are included in the literature. BAC-Pritchard, Inc., Baltimore.
Circle 417 on reader service card

Enclosures and skylights
A line of insulating, light-transmitting enclosures and skylights is described in a 4-page color brochure. Photos show a variety of applications, including swimming enclosures, and mall and atrium roofs. The structures are said to be corrosion resistant. Structures Unlimited, Inc., Manchester, N. H.
Circle 418 on reader service card

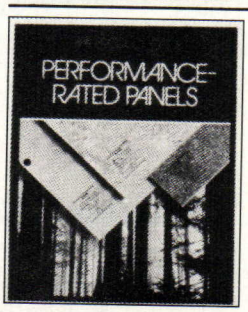
Concrete aggregates
An 8-page brochure reviews the properties of the manufacturer's perlite concrete aggregates. The products' application in roof deck and on-grade floor construction is reviewed. Diagrams of roofing details are included in the literature. Grefco, Inc., Westchester, Ill.
Circle 419 on reader service card

Tinted float-glass
Sunglas Blue tinted float-glass is featured in a 4-page brochure. The product's level of visible light transmittance is said to be 10 per cent better than standard bronze glass. A chart lists the performance characteristics of the glass. Ford Glass Div., Detroit.
Circle 420 on reader service card

Computer-support tables
An 8-page color brochure reviews the manufacturer's line of computer-support tables, including single- and double-stem dual-level CRT tables, cantilevered display tables, and peripheral machine tables. Human Factor Technologies, Inc., Londonderry, N. H.
Circle 421 on reader service card

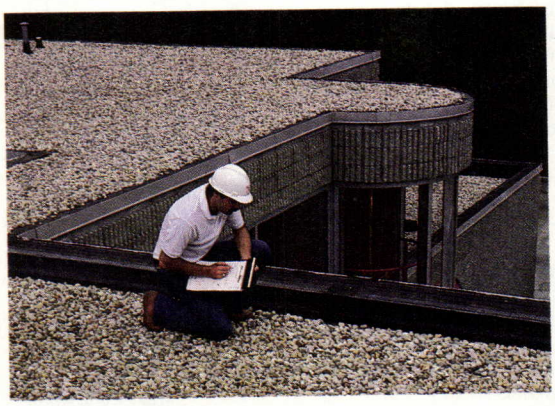


Expansion bearing systems
A 4-page brochure describes the manufacturer's line of expansion bearing systems used to support buildings, bridges, pipelines, and heavy machinery. General specifications for each available bearing system are included in the literature. Beeco Products Co., Fort Washington, Pa.
Circle 422 on reader service card



Structural wood panels
A 12-page brochure contains descriptions of structural wood panel products, including plywood composite panels, waferboard, oriented strand board, and structural particleboard. Durability classifications, span ratings, and handling of the panels are reviewed. American Plywood Association, Tacoma, Wash.
Circle 423 on reader service card

JUST BECAUSE YOU'RE COVERED DOESN'T MEAN YOU'RE PROTECTED.



Even though your project is under roof, the roof isn't under warranty until it's inspected by the membrane manufacturer. And it seems as though some manufacturers take forever to send an inspector.

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Specify Firestone RubberGard® EPDM. You're not only covered. You're protected, too. Firestone Building Products, 3500 W. DePauw Blvd., Indianapolis, Indiana 46268. Sales: 1-800-428-4442. Technical Services: 1-800-428-4511.

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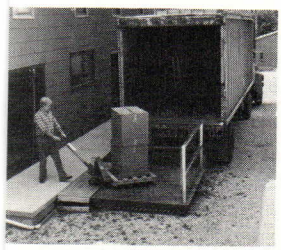
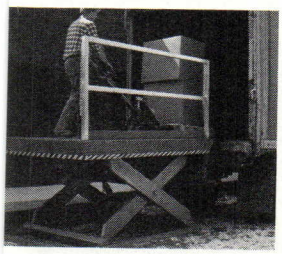
Circle 69 on inquiry card

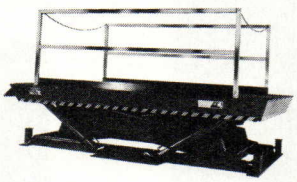
Cut Loading Dock Construction Costs





You can save $10,000 by installing an Advance Superdok rather than a recessed concrete loading dock.

Before you design a large concrete hole in the ground call Advance toll free at **1-800-THE DOCK.**



You save money with a Superdok.

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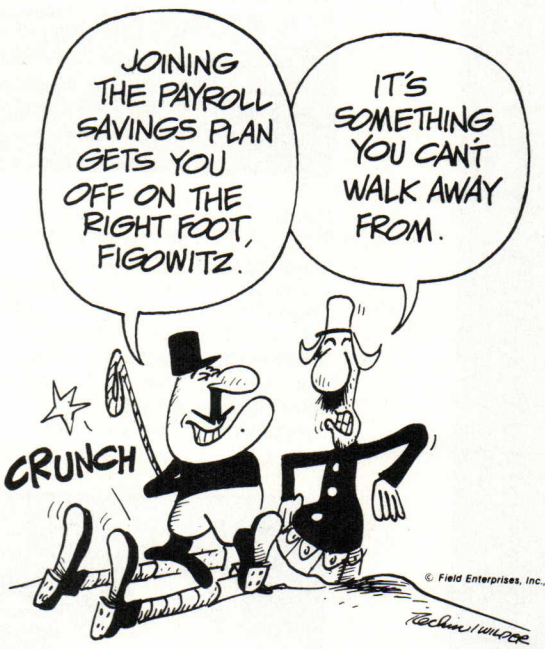

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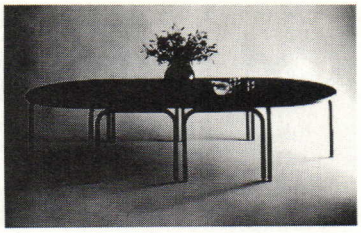
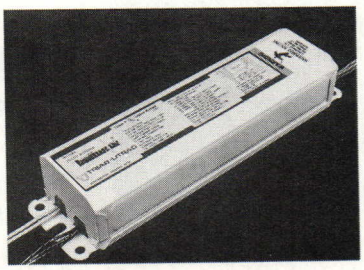
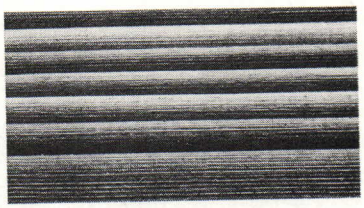
continued from page 157



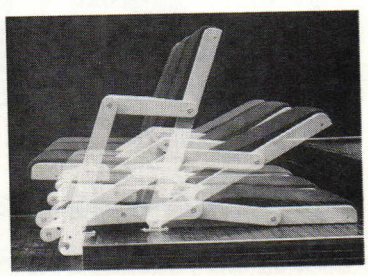
Tables
The manufacturer's new *Work Furniture* collection includes a selection of rectangular, round, and semicircular tables. The 1/4-in.-thick table tops have a composite wood core and are available with wood or laminate surfaces. The 1 3/4-in. epoxy-coated tubular steel legs come in several colors. Kroin Inc., Cambridge, Mass.
Circle 302 on reader service card



Ballast
A new three-phase electronic ballast is said to operate two 8-ft fluorescent lamps at normal levels of light output with a 30 per cent power savings over standard single-phase ballasts, and a 4 per cent savings over single-phase electronic ballasts. Triad-Utrad, Div. of MagneTek, Inc., Huntington, Ind.
Circle 303 on reader service card

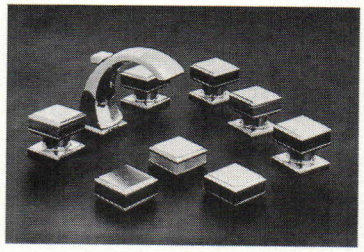


Fabrics
The new *Chi* line is part of the manufacturer's *Shibumi Collection* of handwoven Japanese reproductions. The fabric is made from a cotton blend and is available in seven colors, including jasper, lapis, pumice, tiger-eye, feldspar, limestone, and granite. Groundworks, New York City.
Circle 304 on reader service card

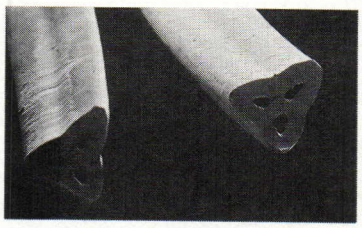


Foldable armchair
A Danish-made, foldable auditorium armchair is made from solid beech wood. The backrest and seat come in a selection of upholstery, and an attachable writing tablet is available as an option. Daniture A/S, Copenhagen, Denmark.
Circle 305 on reader service card

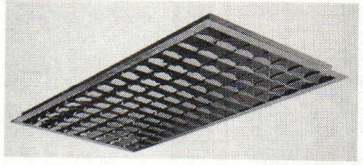
Kettle
A new teapot designed by architect Michael Graves is the second in the manufacturer's series of designer kettles. A blue handle with dark red knobs is attached to the two-liter capacity, bell-shaped stainless steel body. Alessi USA/The Schawbel Corp., Cambridge, Mass.
Circle 306 on reader service card



Faucets
The *Envoy* line of faucets includes lavatory, shower, and wall- or deck-mounted bath sets. The faucets are available in a selection of metals, gloss and matte colors, and semi-precious stones. Coordinated accessories can also be specified. Kallista, Inc., San Francisco.
Circle 307 on reader service card



Fiber
Antron Precedent is a new addition to the manufacturer's line of carpet fibers and is intended for heavy-duty commercial installations. The hollow filament, delta-shaped staple fiber has a *Teflon* surface and is available for cut and loop pile carpeting. DuPont Co., Wilmington, Del.
Circle 308 on reader service card



Lighting louvers
The *Paracube III* lighting louver is said to offer a high level of illumination and eliminate most glare. The unit is available in several grid sizes with 3-in. by 3-in. by 1 1/2-in. individual cells. American Louver Co., Skokie, Ill.
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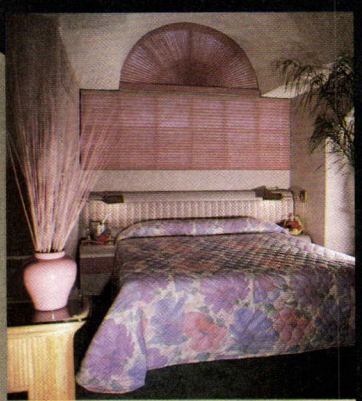

Graber FashionPleat Shades. Virgin Grand Beach Hotel, St. Thomas, U.S.V.I., Allen-Williams Corp.

Graber Drapery Hardware. Westin-O'Hare Hotel., Chicago, IL. Contractor: John Micelli and Son.

Graber Mini-Blinds. Boise Cascade Office Products Div., Itasca, IL. Contractor: Windco.

Graber Vertical Blinds. Wisconsin Telephone Co., Madison, WI. Contractor: Swayzee Products.

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Manufacturer sources

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

Four Office Buildings
by Gwathmey Siegel & Associates
Pages 102-105
The Evans Partnership for AT&T—Curtain wall, entrance: Smith Glass. Spandrels: Hamilton Glass. Ceiling: Alcan. Marble: Titan Stone. Downlights: Halo. Paints: Benjamin Moore.
Pages 106-107
Triangle Pacific Corporation—Curtain wall, entrance: Kawneer. Glazing: PPG. Ceiling: Alucobond. Roofing: Johns-Manville. Glass block: Pittsburgh Corning. Chairs, table: A. I. Wallcovering: L. E. Carpenter. Flooring: Bruce. Downlights: Lightolier. Doors: Williamsburg. Locksets: Schlage. Hinges: Stanley. Paint: Benjamin Moore.
Pages 108-111
First City Bank—Curtain wall, cladding: Shelton W. Greer. Glazing: Environmental Glass Products, LOF. Door pulls: Brookline. Pavers: Winburn Tile. Paint: Benjamin Moore. Downlights: Lightolier. Ceiling: Donn.
Pages 112-115
IBM-Kingsbridge—Curtain wall, glazing: PPG. Spandrels: Hamilton. Glass block: Pittsburgh Corning. Area lighting: Crouse-Hinds. Ceiling: Donn. Marble: Titan Stone. Entrance: Extrude Art. Pavers: Stonex. Column cladding: Howell Steel. Sunshades: Levelor. Paint: Benjamin Moore. Railings: Aluminum & Iron Specialties. Seating: Jack Cartwright. Lamps, wall hanging: Gwathmey Siegel. Skylights: Super Sky. Elevators: National. Rug: Stark. Lighting: Elliptipar. Smoke alarms: Edwards.

Pages 116-121
Hotel Lenado
by Harry Teague Architects
Pages 116-117—Metal roof: M&M Systems. Wood doors: Nicolai. Windows, sliding doors: Pella. Stains: Olympic Stain Co.; Samuel Cabot, Inc. Signage: Metallic Arts.
Page 120—Lounge furniture: LaLune. Firescreen: Myers. Carpet: Romane. Track lighting: Halo; Lightolier. Beaded ceiling board: Henry Ketchum Lumber. Metal ceiling: W. F. Norman. Downlights: Halo. Bedroom table, chairs: Old Hickory. Shutters: Pinecrest. Bed: Backwoods. Radiator: Burnham America. Stove: Vermont Casting. Hanging fixture: Halo.

Pages 122-131
Private residence
by Tod Williams and Associates, Architects
Siding: Mohawk Colored Stucco. Curtain walls: Robert Otto. Fixed and operable windows: Sussman. Wood stain: Samuel Cabot, Inc. Glass doors and skylights: Arcadia. Pool: Lavinio.
Pages 127-129—Paints: Pratt and Lambert. Drywall: U. S. Gypsum. Carpet: Esquire. Rug: V'soske. Sofas: A. I. Dining table, chairs: Thomas Moser. Custom woodwork: Andreassen Construction; Yoshi M. Woodworking Studio. Fireplace: Henry Haas. Table: LCS. Wall lights: Rambusch. Sculpture: Steve Wood. Switchplates: Leviton. Flooring: American Olean.
Pages 130-131—Sink: Elkay. Faucet: Speakman. Refrigerator: Sub Zero. Railings: Southampton Welding. Locksets: Schlage. Hinges: Stanley. Sculpture: Mel Kendrick. Wall hanging: Deborah Kass.

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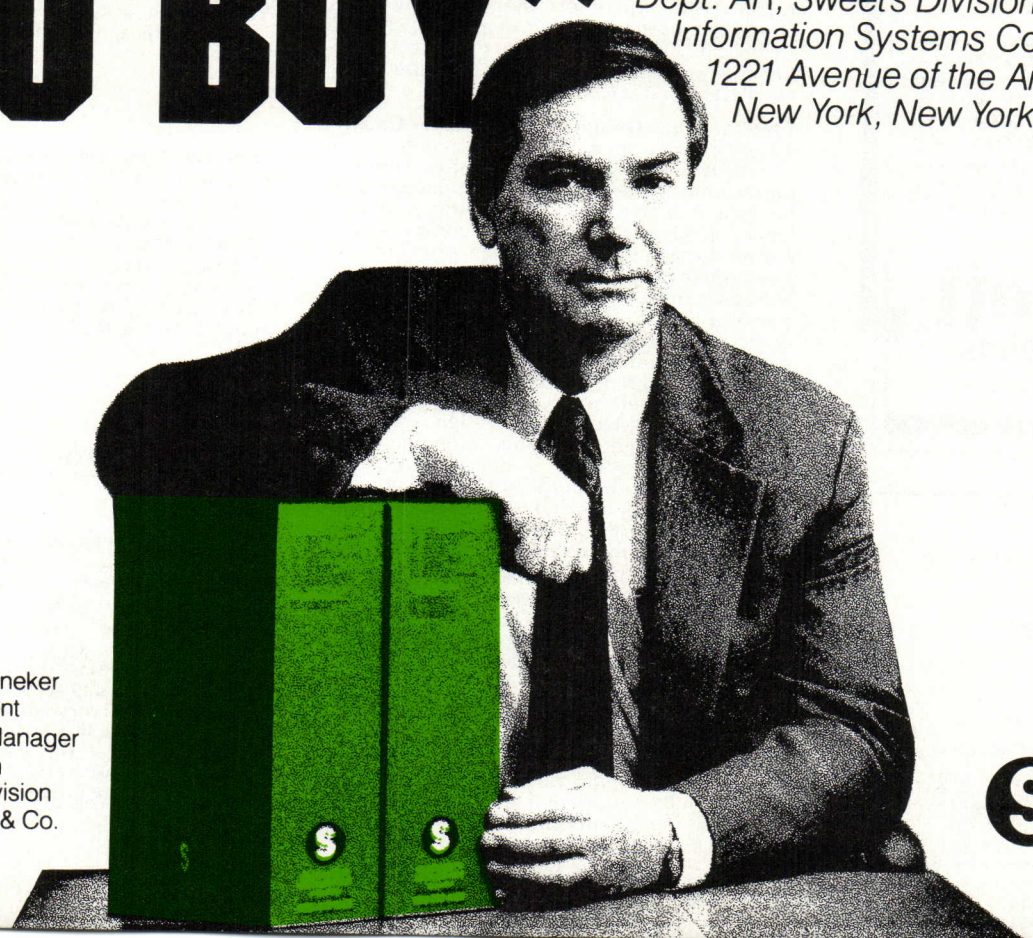

John A. Danneker
Vice President
& General Manager
Construction
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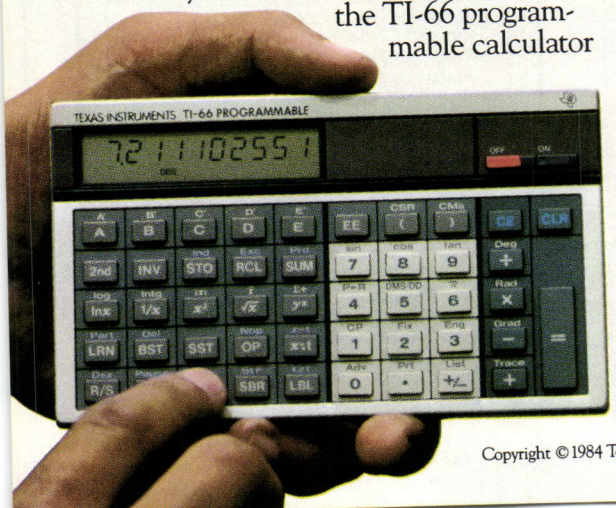

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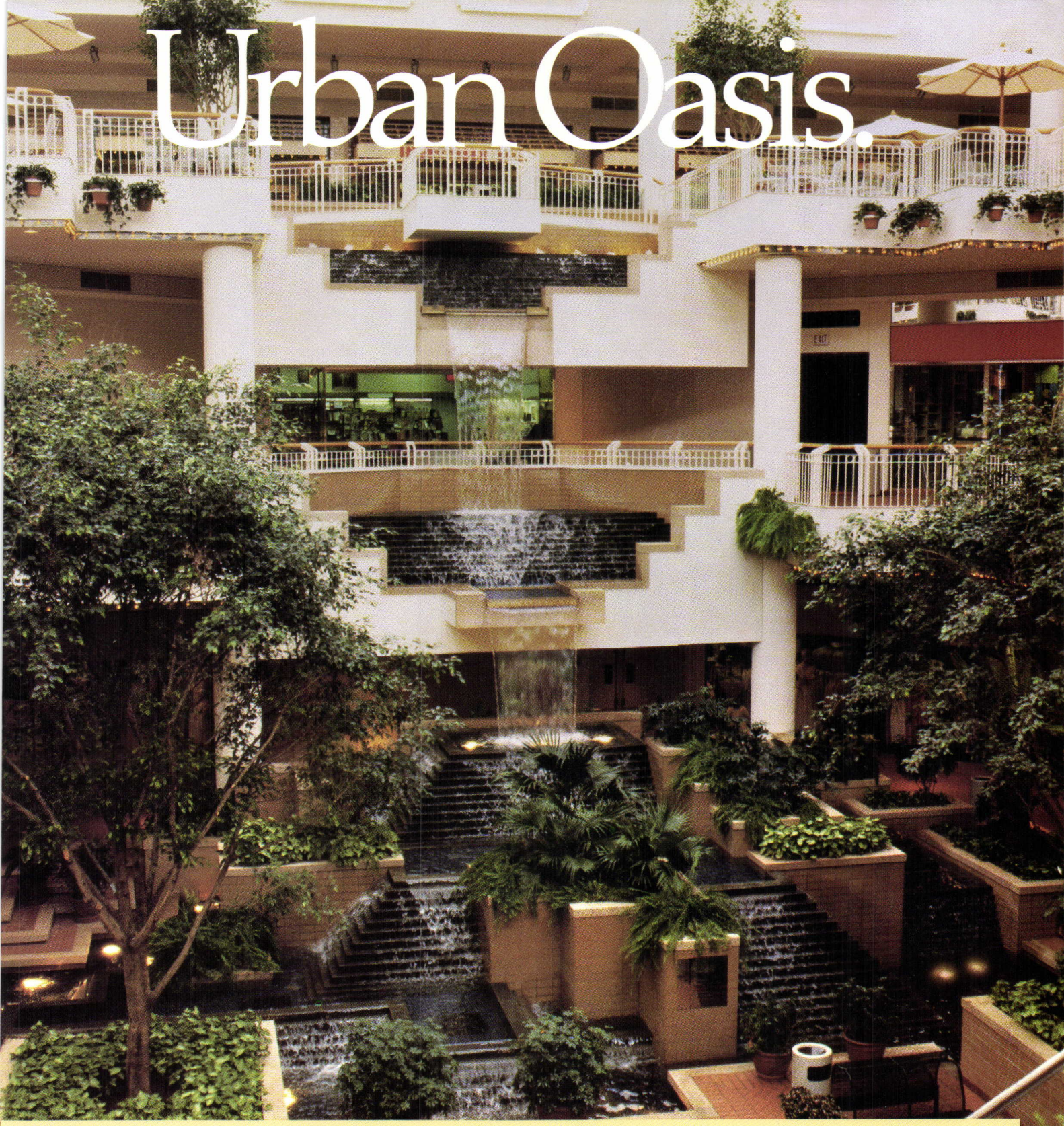

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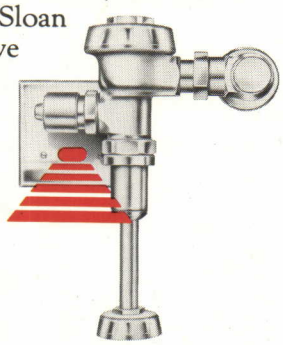

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