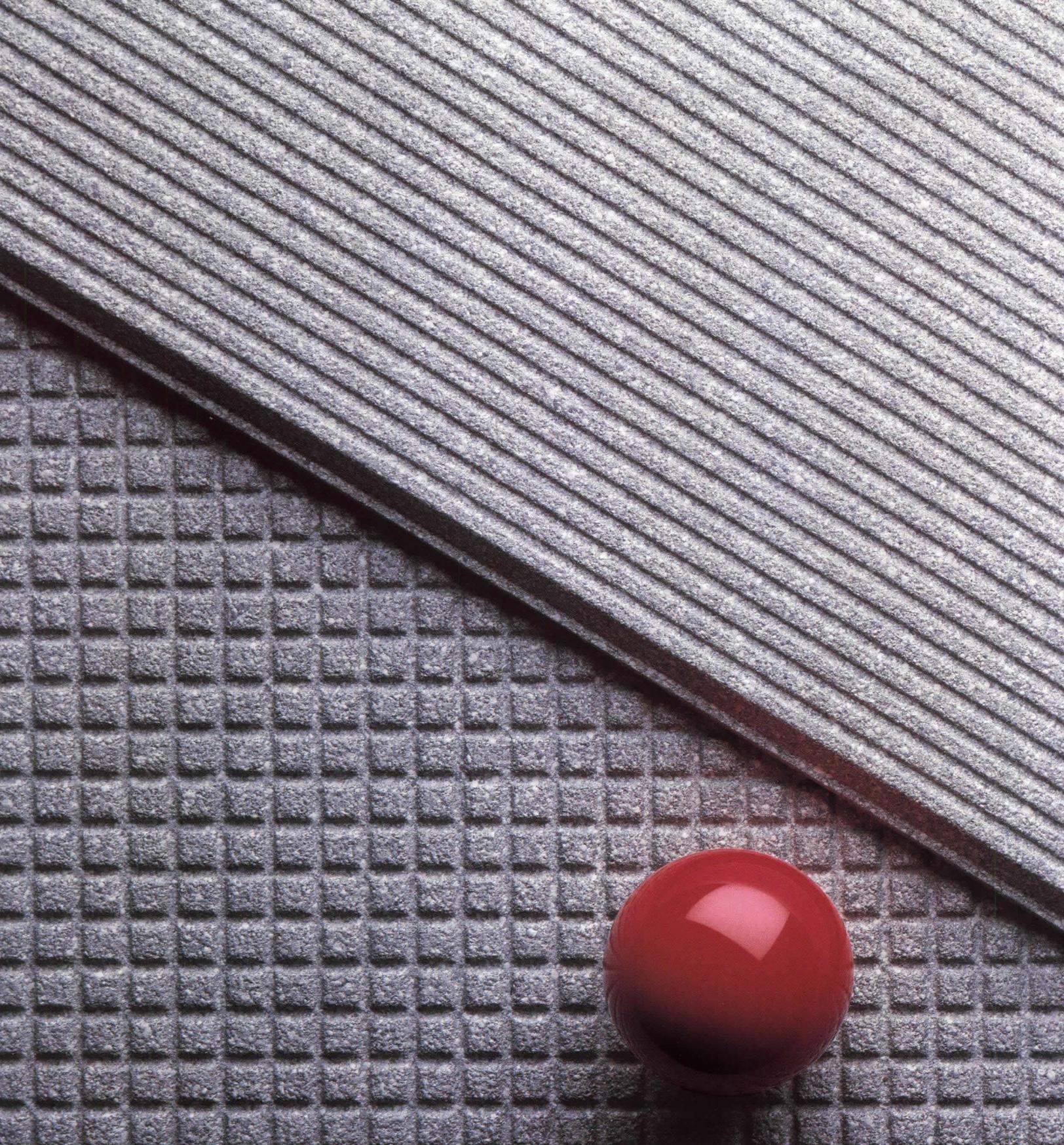


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Progressive Architecture (ISSN 0033-0752) is published monthly, except semimonthly in October, by Reinhold Publishing, A Division of Penton Publishing, 1100 Superior Ave., Cleveland, OH 44114; Philip H. Hubbard, Jr., President; Robert J. Osborn, Vice-President; Penton: Thomas L. Dempsey, Chairman; Sal F. Marino, President; James K. Gillam, N.N. Goodman, Jr., Paul Rolnick, Executive Vice-Presidents. Executive and editorial offices, 600 Summer St., P.O. Box 1361, Stamford, CT 06904 (203-348-7531). FAX 203 348 4023

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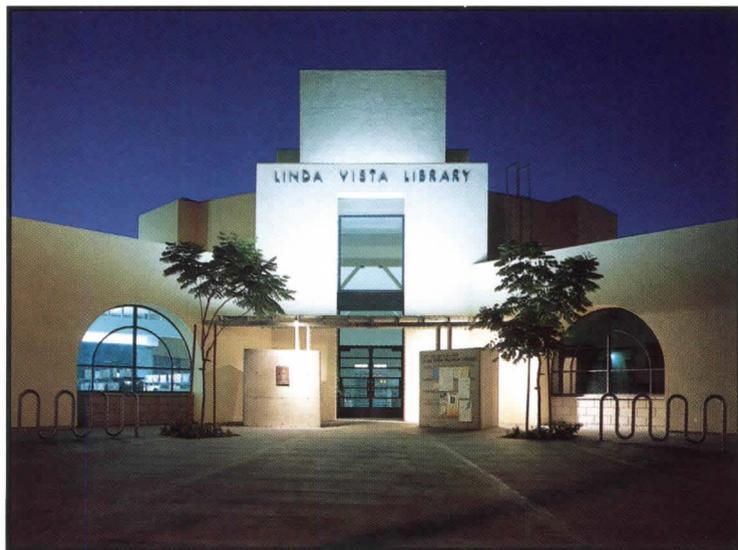
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*Chicago Art Institute (p. 73).*  
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# Playing Games with the Future

AIA's search for a "preferred future" was advanced little by its well-intentioned September conference.

AS a major step in its Vision 2000 program, the AIA gathered some 300 hand-picked professionals in Alexandria, Virginia, in September for two days of group direction-finding for the future. I was happy to be included—along with P/A's Jim Murphy—among the conferees.

Armed with binders full of reports on "Trends Shaping Architecture's Future" and such (see September P/A, Editorial, p. 9), the participants arrived from all corners of the nation, ready for "an exploration of the needs of society in the early 21st Century and the capacity of the architectural profession to respond and adapt to those needs." It was surely an impressive company. The invitation procedure drew a remarkably high proportion of the nation's deans of architecture, and many other attendees were invited because of their association with alumni councils. There was a liberal sprinkling of journalists, AIA senior staff, representatives of allied professions, and so on. Very thinly represented, however, were the biggest American firms or those with the greatest design reputations. Intentionally or not, the attendance list was weighted toward those who have a particular interest in pondering the future—and giving two days in Alexandria to that—not necessarily those who will be facing this future from positions in professional practice.

In the end, the makeup of the group was not really crucial, since any dozen architects meeting anywhere could have come to the kind of conclusions this meeting produced. The problem was not with the participants, but with the procedure.

Most of us arrived hopeful that we might really help set an agenda—and gain some personal insights in the process. Once divided into teams of ten, we plunged into the initial exercises, willing to let our "facilitators" set the pace and scouring our brains for thoughts that were recorded on big easel pads.

Along the way, we were treated to some genuinely stimulating observations by five outstanding speakers from the areas of social history and economics. Daniel Bell, speaking on technological innovation, discredited the old notion that service industries are not productive in the sense that manufacturing is; Amitai Etzioni, talking on human values, said that the U.S. could regain some of its economic dominance only by making social sacrifices for the sake of productivity—or it could just accept a lower global profile. Pat Choate, surveying the worldwide economy, identified the traditional antagonism between big business and the U.S. government as a liability in relation to our chief competitors.

Though these speeches stimulated some ideas about the architects' situation, most of us began to realize that inspiration wasn't going to count for much here. At each stage of the process, the organizers just took simplistic counts: The issues to address, they instructed us, were those for which we identified the largest *number* of implications. The resulting list of "architect-relevant" issues involved computer-aided design, preservation, professional responsibility/liability, expert systems, environmental protection, safety, poverty, energy, urbanization . . . a litany that any of us could as well have drawn up.

All right, now, given those issues, what should the profession do to get ready for the 21st Century? Again, the collective wisdom of 300 minds was subjected to raw frequency counts and reduced to numbingly familiar lists of functions. Heading the list of conventional "roles, functions, and services" for architects were community design and planning, public education, and involvement in public policy formation; the rest of this ten-item list, with the notable exception of "research and development," included only standard client services. In the list of "innovative" roles—for which we had been challenged to stretch our minds—there was actually nothing except rephrased versions of the "conventional" functions.

Any new ideas put forward and any insights developed never got beyond the ten-person groups, as the conference organizers churned out these lists based on simplistic polling. If the promised official report on the conference reveals any deeper thinking, it will be great surprise to most of us who attended.

The 300 of us who gathered in Alexandria deserved to have our time and thoughts put to better purpose. And the AIA, if it is to maintain respect for its Vision 2000 program, must consult with a better breed of data manipulators than the ones who presided over this meeting. ■

*John Morris Dixon*

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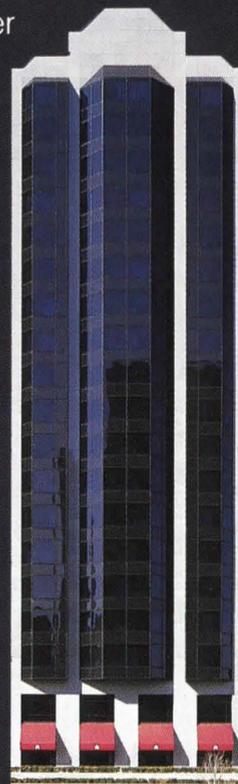
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## Witness Expertise

Professor DiPasquale certainly hit the mark in this month's issue of P/A (Sept. 1988, p. 57) "The Expert Witness."

Having served for a number of years as Expert Witness both in Arbitration and the Court System here in Southern California, most of what the Professor had to say holds true where litigation is often taken lightly.

His comment with respect to not "winging it" certainly is critical. The best way to get discovered is not to be prepared and to try to ad-lib your way through a deposition.

It is my opinion that our profession can be best served by expert witnesses who objectively find for the truth and not for those who pay the freight!

Craig B. Kelford, AIA  
Palos Verdes, Calif.

## Canberra Reconsidered

You are to be commended again for devoting a single issue to a building of such singular international importance as the new Australian Parliament House in Canberra (August issue). Although the coverage is comprehensive in looking at so many aspects, there is also a certain lack of critical perception that could have added to the appreciation of this major work. By avoiding a close examination, especially of the experiential, you have produced a masterpiece of positive neutrality that reads like an admiring promotion. You have produced a bridal gown without the bride.

The hollowness of your coverage is easiest represented by the portfolio of handsome and elegant photographs that present the object as abstract. The cover photograph is truly surreal. There are no people anywhere. The only full figure shown in many photographs is a bronze of Elizabeth II on the upper Public Terrace (page 88). She is not identified. Otherwise, there is not a soul in sight.

In your description there is little emphasis on the programmatic differences in needs between the three users: the visitors, espe-

cially citizens who are paying for this symbolic object as a 200th birthday present to themselves; the Parliamentarians who have ceremonial and prestigious roles as well as functions; and lastly the staff who continually inhabit and operate the facility.

One hopes that the stark, flat refinement of architectural detailing will provide appropriate backgrounds and setting for the highly varied range of human functions. But neither photographically nor descriptively do you comment except to admire "craftsmanship and painstaking design attention." The result is a presentation that does not communicate the realities that the architects obviously attempted to address.

Nor do you address the architecture in immediate use. For instance, in use the poetic emptiness of the great Forecourt is dominated by the presence of tour buses and parked cars. And, is it poetic that the most magnificent commissioned art work, the 46-foot-square mosaic designed by aboriginal artist Michael Nelson Tjakamarra in the Forecourt cannot normally be seen (page 98)? It must be wetted to reveal colors and patterns—a fact understood and exercised by your photographer.

The experience of an architect's intent confirms the architecture. Thus, telephoto shots along the Mt. Ainslie axis confirm the suitability of the bilateral symmetry of the design—although very few will relish the view from the flagpole. However, why do you not show the discordant views from the "welcoming two angular avenues" which are virtually the only ways to approach the Parliament. Kings Avenue and Commonwealth and their extensions are the armature of the city as both the ceremonial and practical lines of access. From them the curved walls that slice the hill are aligned with some uncertainty. The awkward steps and openings in these walls add to the ambiguity. The imbalance of the legs of the base of the flagpole quadrupod adds to the un-

settling effect. With that information, one might conclude that, however brilliant and convincing the original great conceptual drawing, the idea has been somewhat lost in execution.

One would also like to know whether indeed this is the wondrous earth-embraced monument of light, space and meaning that was promised when the winning design was announced. You mention neither energy nor services, so it appears to be a monumental building with grass on the roof and too many interior rooms.

Among the issues you discuss that could have gone further is the question of roots. Is this an Australian building by an American architect, or just a good international building that illustrates the democracy of clear-thinking English-speaking people in the late 20th Century?

You mention climate neither functionally nor aesthetically. But any real Australian knows the silvery flutter of light, the ambiguity of topography, and the uncertainty of season that characterize much of the Australian scene. In contrast, Canberra does see snow and does have clearly defined seasons.

If needed ambiguity is part of the quality sought of the Parliament, should it not be discussed? Certainly, the aspect of architectural scale might have been more critically examined. The diminutive size and stage set character of the screen wall colonnade in the Forecourt are also qualities in addition to its "Minimalist—archaic" appearance.

Fortunately, you avoid stylistic assignment. However, the architect did design stylistically in a very self-conscious way to distinguish various parts of the building. Differences in the iconography of interior architectural detail were deliberately keyed. Both the color and shape of surfaces were coded. Thus, "architectural inversions (big portico/little door, green square/red circle) are opposed to make distinctions which are geographic (north/south, east/west); programmatic (public/private,

member/Senator); and symbolic (citizens/elected leader, lower house/upper house)." (Haig Beck in *Parliament House/A Building for the Nation*.) Even if these effects were too subtle to be noticed in a quick walkthrough, your editors might have observed that such refinements might be appreciated by those who use the building continuously.

The disappointment then in the *Progressive Architecture* coverage is not the handsome but lifeless photographs, and not the intelligent but admiring description. Rather, it is the omission of experience, either personal or projected. Such a major building deserves critical and contextual examination, not just a pat on the back. To see only one axis is hardly to see any axis at all.

Jeffrey Cook, AIA  
Regents Professor  
Arizona State University  
Tempe

[We appreciate Professor Cook's balanced approach to criticizing this issue. We thought the showing of some opening day throngs would mitigate somewhat the unpopulated photos that predominated; most of the photography was done before the building was opened, so that our publication would not lag too many months behind the May dedication. Our "walkthrough" involved two editors over a period of three days. Those cars and buses Professor Cook observed in the Forecourt were supposed to go into the large—and rather gracious—parking area under it. We are surprised that Professor Cook sees "diminutive size and stage set character" in the monumental Great Verandah.—Editor]

## Nivola Misspelling

The name of the late sculptor Costantino Nivola was spelled inconsistently in his obituary (September issue, p. 26).

## Outpatient Cost Correction

The correct cost of the Outpatient Care Center at U.C.L.A. by Mitchell/Giurgola Architects (August, p. 45) is \$50 million.

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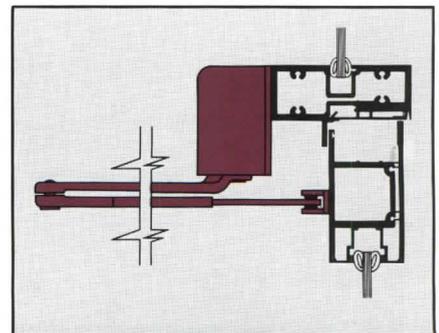
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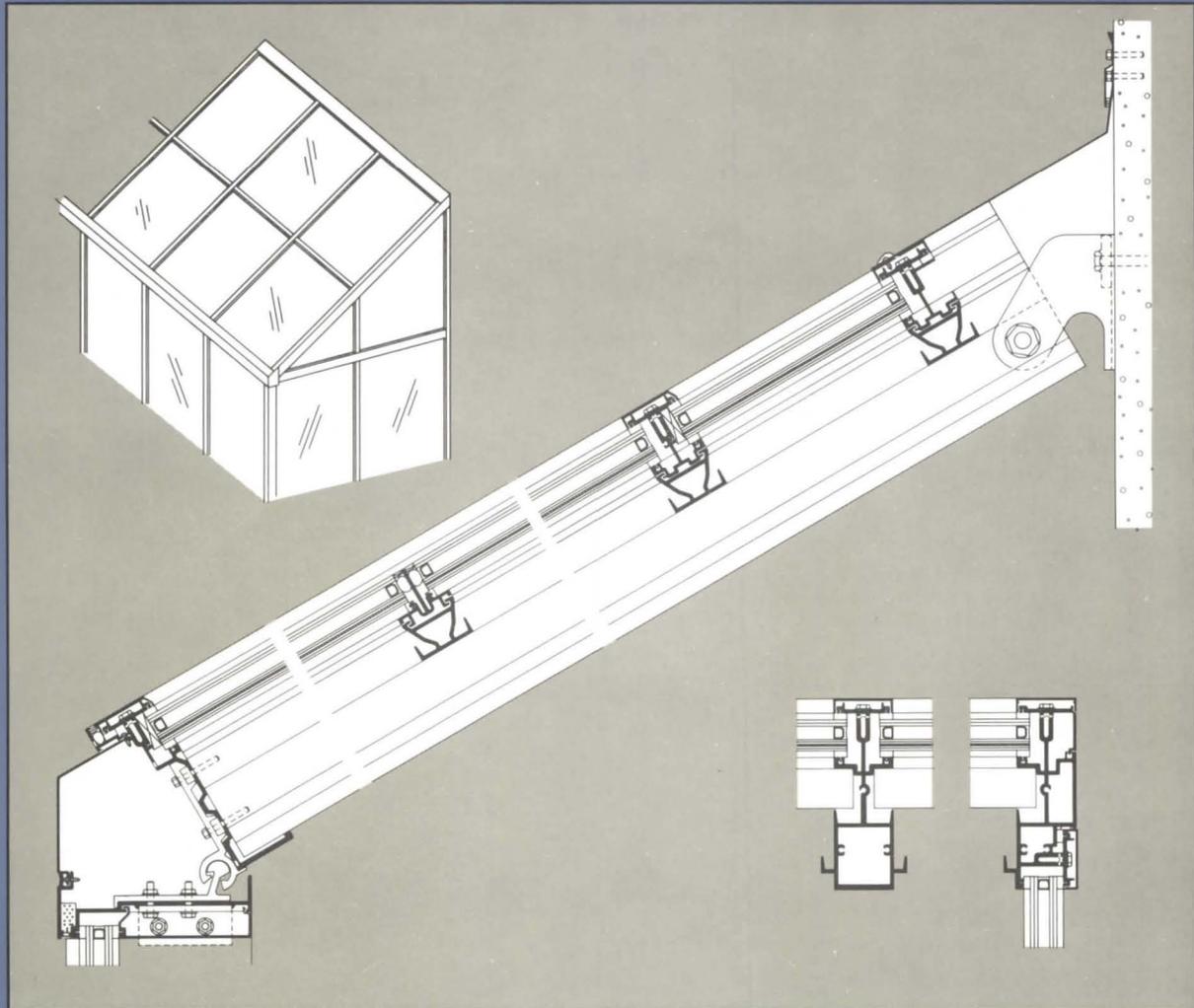
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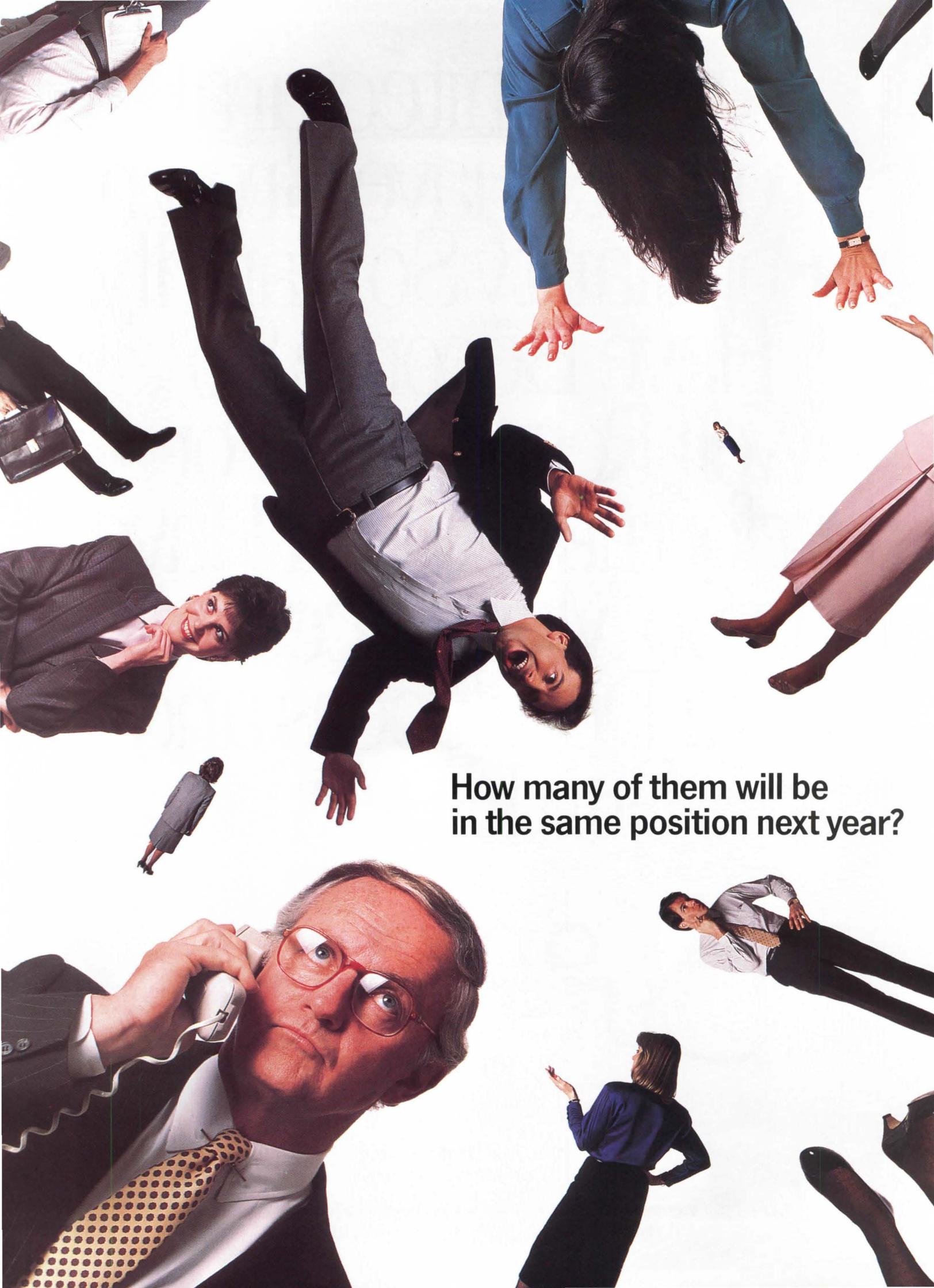
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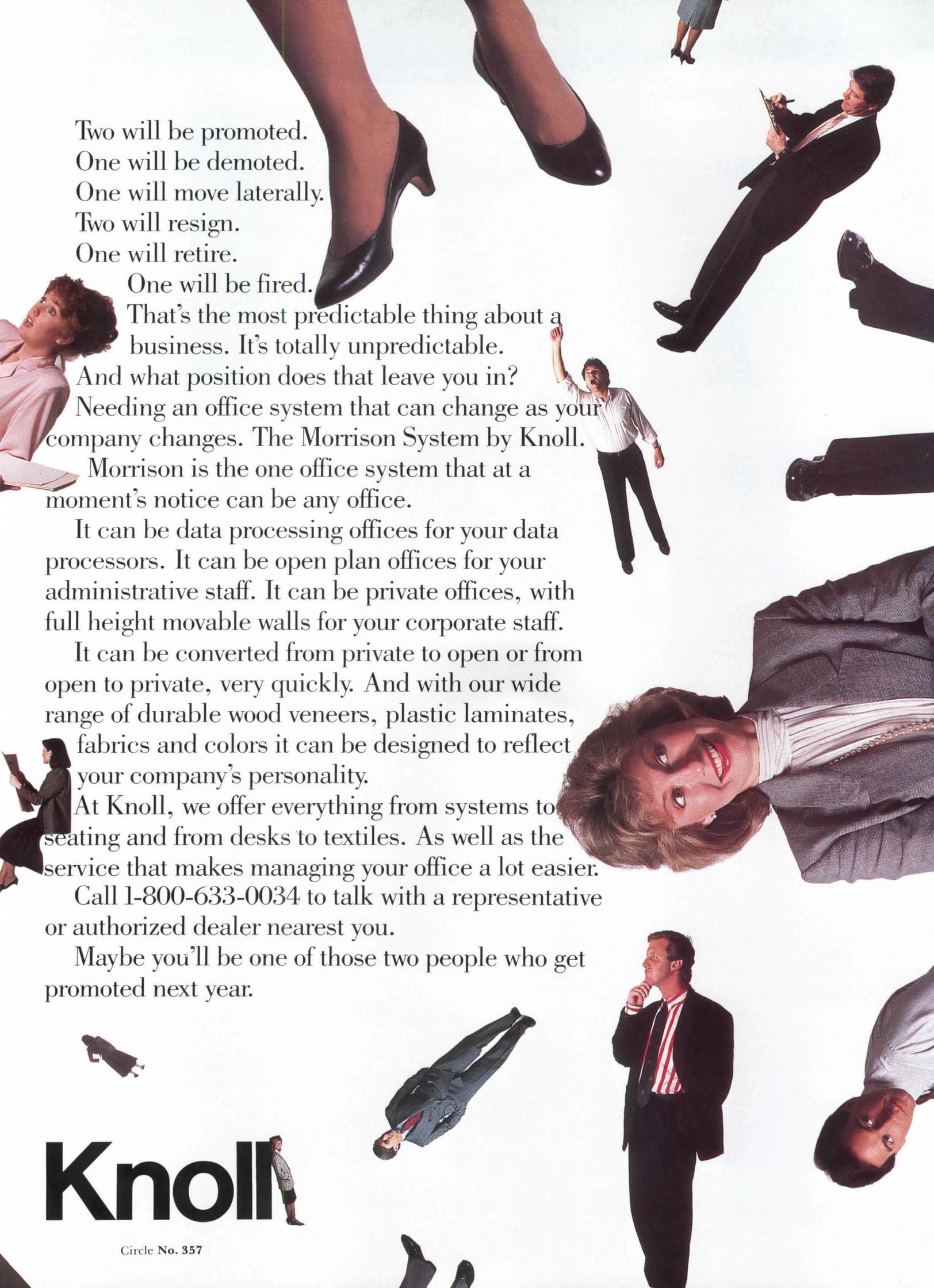
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**Five projects by Robert A.M. Stern include a casting center for Walt Disney World (above). In Progress, p. 39.**

## Waterfront Art in Toronto

A public works facility may seem an unlikely setting for an international art-in-architecture exhibition, but Visual Arts Ontario, Canada's largest artists' association, knew what it was doing when it chose the R.S. Harris Water Filtration Plant, at the eastern end of Toronto, as site and generator of an ambitious show called WaterWorks, which opened last summer. Named for the visionary, if not megalomaniacal, Commissioner of Works responsible for its construction,

*(continued on page 25)*



*Aldo Rossi's Lighthouse Theater, part of Toronto's WaterWorks exhibition.*

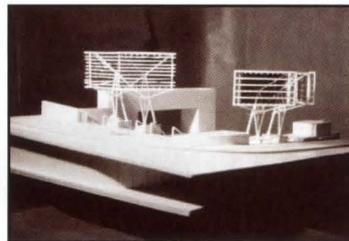
## Seattle Art: in the Tunnel . . .

Over the last two years, six artists have set up their drafting tables beside design architects and engineers working on the future 1.3-mile bus tunnel under downtown Seattle. When completed in 1990, this \$415.7-million transit tunnel will be one of the largest public projects in recent history to add artists as equal members of the design team.

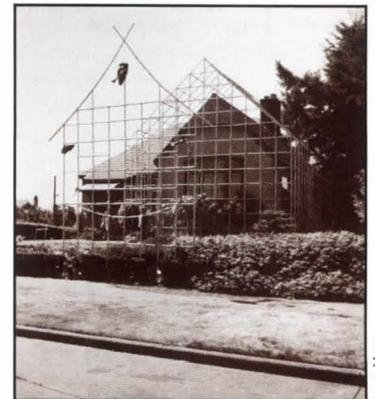
The Municipality of Metropolitan Seattle (METRO) envisioned the tunnel and its five stations in 1983 as the center of a "park and ride" suburban bus system. Both ends of the tunnel connect directly to the major interstate highway, thus allowing a quick commute into downtown Seattle from the suburbs.

After basic planning for the tunnel was concluded by design

*(continued on page 28)*



*Freestanding trellises: bus station art in Seattle by Alice Adams.*



*Bamboo construction on Seattle lawn.*

Lynn Moser

## . . . and the Suburbs

The Nine One One Contemporary Arts Center in Seattle has added a new dimension to art in public places with its Homes for Art program, now concluding its second year. The annual exhibition introduces temporary, site-specific art installations into predominantly residential neighborhoods.

During August and Sep-

*(continued on page 25)*

## Stirling's Mini-City of Science

Nearly a decade after its architects won a limited competition for its design, the Berlin Science Center for Social Research (the Wissenschaftszentrum Berlin für Sozialforschung or WZB), designed by James Stirling, Michael Wilford & Associates, opened at last in May. Chosen in 1980 over schemes by Mario Botta and West Berlin architects Bangert, Jansen, Scholz, Schultes, the Stirling, Wilford design is still not quite complete.

The WZB, a Think Tank of sorts, is composed of several loosely joined, archetypal building forms—a hexagon, rectangle, semicircle, and cross—grouped around an irregular courtyard behind the preserved front of the former Social Security Building or Reichsversicherungsamts, designed by August Busse in 1894. The various parts of the WZB—the library, cafeteria, conference rooms,

*(continued on page 26)*

METRO

Ian Smith-Rubenzahl

## Pencil Points

A new architecture school will be established at the University of California, San Diego, accepting students in the fall of 1991. The school will offer a four-year B.A. in architecture and a three-year Master of Architecture degree.

A memorial to veterans of the Korean War is the subject of an upcoming open competition sponsored by the American Battle Monuments Commission. The memorial is to be located near the Lincoln Memorial in Washington.

The Cyclone roller coaster at Coney Island has been designated a landmark by the New York Landmarks Preservation Commission. Built in 1927, the ride is one of fewer than 100 wood-track roller coasters remaining in the U.S.

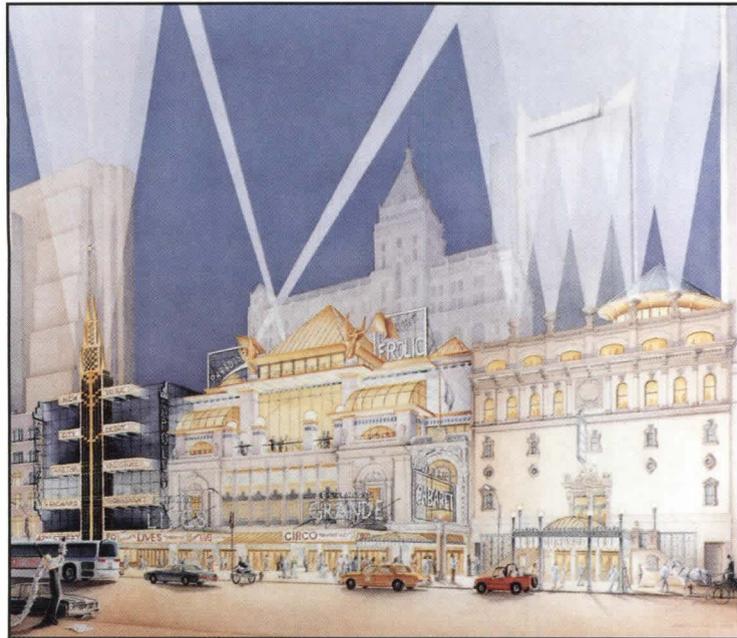
"The Freeway as Urban Art" is the subject of a design competition sponsored by the National Endowment for the Arts and the Texas A&M Landscape Architecture Department. The competition site is a freeway interchange in Houston; the winning entry will be implemented under a program allocating one percent of highway money for landscape development.

Louis L. Marines will leave his position as executive vice president of the AIA in 1989, after five years in the position. A search committee has begun to look for a successor.

Hardy Holzman Pfeiffer Associates has developed a master plan for the rehabilitation of the Los Angeles City Hall. Over \$1 million in public and private funding has been raised toward the restoration of the landmark building's public spaces.

Renzo Piano, with local firm The Blurock Partnership, is designing a 75,000-square-foot facility for the Newport Harbor Art Museum in Newport Beach, Calif.

Washington's Greyhound bus terminal, a 1941 Art Deco structure, will be restored and used as an entrance to a new 12-story office building. The plan for the site is a scaled-down version of an earlier design that was rejected by the city's Historic Preservation Review Board.



Proposal for 42nd Street theaters: Roof gardens and a Joseph Urban façade (left).

## "Populist" Plans for 42nd Street

Architects Robert A.M. Stern, Robert E. Meadows, and the firm of Brannigan-Lorelli have unveiled a set of designs to transform five historic theaters on 42nd Street near Times Square into a "populist entertainment complex." The Urban Development Corporation and the City of New York, hoping to generate interest from potential backers and occupants, asked the architects to address a combination of possible uses for the site, which was once a glamorous thoroughfare lined with theaters, cabarets, music clubs, and vaudeville houses, but has become New York City's most infamous block of sleaze shops and pornographic movie houses. A not-for-profit organization will be established to help fund and oversee the management of the complex, which has been likened to Lincoln Center. The detailed design alternatives, including an enormous lighted model, were presented on October 20 at the Municipal Arts Society and will be on view through November as part of an exhibition organized by Stern and Hardy Holzman Pfeiffer Associates.

In an ambitious and creative project that shows sensitivity to the history and flash of Broadway, Stern, Meadows, and Brannigan-Lorelli propose to renovate the Lyric, Victory, Selwyn, Times Square, and Apollo Theaters, now used as pornographic or "action" movie houses, and a few adjoining buildings on the north side of 42nd Street. They also plan to add new restaurants, arcades, and other support spaces such as

rehearsal studios and offices.

The plans include a number of programs from highbrow to low. One alternative calls for the restoration of the five theaters as legitimate, single-auditorium playhouses. Stern himself finds that plan problematic, arguing that too many playhouses in the Broadway district are already underutilized. A second, mixed-use alternative would convert part of the Selwyn building and the ground level of the Times Square Theater to retail use, while the Lyric Theater's interior would be broken up into smaller dinner theater and cabaret spaces. The Apollo and Selwyn interiors would be preserved as single-auditorium theaters.

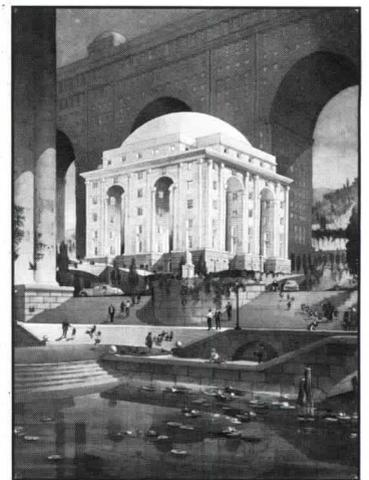
In the most elaborate alternative, the Lyric and Apollo Theaters would be rebuilt inside as an arena, creating "a similar but more versatile version of Madison Square Garden's Felt Forum," according to Stephen Falatko, associate and project architect for Stern. The Selwyn building would be transformed into a "theater arts center" with rehearsal space and other amenities and its façade replaced with a dramatic glass front resembling an unbuilt 1927 design by Joseph Urban. A roof garden, reminiscent of those that topped many Broadway theaters at the turn of the century, would top the Victory Theater, and a showy 1000-seat restaurant with a pyramidal glass roof would top the entire complex.

The Stern, Meadows, Brannigan-Lorelli schemes for the U.D.C. are part of the larger Times Square Redevelopment project, a \$2.5-billion plan that includes the addition of four office towers, a merchandise

mart, and a hotel. The developers of these properties have agreed to contribute about \$9.3 million to help acquire and renovate the five theaters; the U.D.C. expects to take possession of the site through complicated condemnation proceedings. Cost estimates for the entertainment complex range from \$50 to \$75 million.

U.D.C. representatives are banking on the fact that the Stern, Meadows, Brannigan-Lorelli designs will stimulate interest and excitement for an idea that has endured delay and opposition from many, including the area's property owners. One of the goals of the project, according to Rebecca Robertson of the U.D.C., is to draw as wide and "reputable" a range of audience as possible to the area. To do this, the diversity of activity offered must be great, and the

(continued on page 28)



Winning rendering by Thomas Schaller.

## Architect Wins Rendering Prize

This year's winner of the Hugh Ferriss Memorial Prize for architectural illustration is New York architect Thomas Schaller, who won for a watercolor of his design for an Italian cultural center. Schaller is only the second laureate in the new awards program, named for the famous American architectural illustrator of the 1930s and 1940s. The award is administered by the Boston-based American Society of Architectural Perspectivists, an organization founded in 1986 to raise the standards of design drawing. Membership is open to professional illustrators, architects, and students.

Schaller's rendering and 45 other works selected from 500 submissions went on display last month at the Pacific Design Center in Los Angeles (through November 4).

**Toronto** (continued from page 23) the functioning plant is a palatial complex of Beaux-Arts plan and Art Deco ornamentation built, in two spurts, between 1937 and 1958. Though it is a landmark on the lake and open for public inspection, few Torontonians ever took the trouble to look inside.

That is, until WaterWorks came along. The exhibition, which ran through early fall, drew visitors in the thousands.



Stage at Rossi's Toronto theater.

The pieces on view were as diverse as the unusual spaces they addressed, which included a dark, damp service tunnel, an unused chamber at the top of a stone tower, and a grand skylighted gallery arching over two long rows of filtration pools. Among those invited to respond to either an indoor site or one on the plant's vast, terraced lawns, were artists John Baldessari, Jonathan Borofsky, Komar and Melamid, John Scott, Rebecca Horn; and architects Team Zoo, Morphosis, and Aldo Rossi, to

name the authors of the strongest pieces.

The largest and most expensive piece in the \$.5 million show was Rossi's Lighthouse Theater for Toronto, a radical fusion of art, architecture, and engineering in the monumentalizing spirit of the purification plant. To the architect's dismay, the theater was removed from its original site on the sea wall and relocated in the shadow of the pumping station, away from the

**Suburbs** (continued from page 23)

tember, eight artists working on six front yards produced a variety of solutions, all of which occupy the nebulous edge between public and private territory. Donna Walter and Steve Baudanes of Jersey Devil united three contiguous lawns with an undulating line of bowling balls and six radar towers topped by bird houses. Susan Galligan and David Loseno buried discarded television sets in the front yard of a bungalow, arranging them in a sort of "rock outcropping." The sets glow from within, while a recording drones on with a description of crystalline geological formations. Working in the front yard of a single-family home, David Crow constructed a



Warping façade from "Homes for Art."

half-scale model of the home in translucent polyvinyl, using the model as a stage for performance art. Alan Lande's bamboo constructions occupy the lawn of a bungalow in a neighborhood of Asian immigrants.

Farther afield, in Bellevue, Washington, Buster Simpson has placed a long series of brightly decorated walking sticks along a two-mile stretch of road in a neighborhood that is rapidly losing its residential identity, in an effort to focus attention on the antipedestrian scale and pace of the emerging commercial district.

Each of these artists has developed a unique response to the juxtaposition of public art and private homes. The pressures of this dichotomy are most succinctly expressed by artist Beliz Brother who grafted whole façades onto the exterior of a home designed by Seattle architect Mark Millett. Her creation depicts forces within the house struggling to burst free of the encompassing envelope. As (apparently) hastily erected braces strain against the skin of the house, forces from within and from without are held tenuously in check. **Clint Pherson**

The author is an architect in Seattle and a frequent contributor to architecture and design journals.

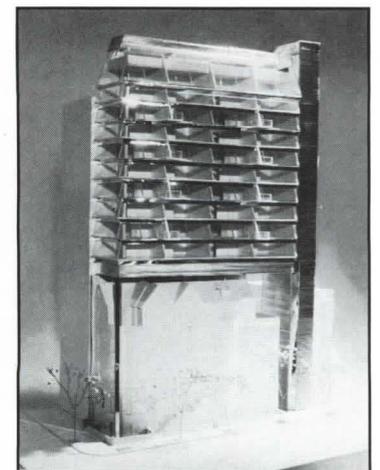
## Piggyback Plan for N.Y. Landmark

Houses of historic note—sometimes inefficient and expensive to maintain—have a habit of interfering with potentially lucrative development projects. On Manhattan's Upper West Side, in one of the more flagrant attempts by a developer to "add value" to a landmark, owner Ivan Stux is proposing to build an 11-story apartment building above an existing 100-year-old town house. The controversy that surrounds this brazen new design has been exacerbated by a complicated landmark battle and a lawsuit by the owner.

The townhouse, a Romanesque Revival dwelling built in 1892, is commonly known as the Castle. Architect William Gleckman's apartment building would hover over the existing six-story landmark, which occupies a corner site only 27 feet deep. Apartment floors would rest on a platform supported by four steel supports and two transfer trusses.

This design, although unusual, conforms to zoning rules that were enacted in 1984 to preserve the "street walls" of the Upper West Side. Stux, who does not believe the Castle is of landmark quality, says of the new project, "It's like any standard apartment building in New York City: supported by columns, but with walls that start on the sixth floor instead of the first." Local preservation groups and most historians, however, argue that any new addition above the Castle would ruin its architectural integrity.

Designed by Clarence True, a specialist in Manhattan row and town houses, the Castle stands at West End Avenue and 85th Street as "one of the most significant surviving individually designed large town houses on the (continued on page 26)



Apartments would straddle landmark.



"Shi Shi Odoshi" in Toronto, by the Japanese firm Team Zoo.



Street façade of Berlin Science Center.

Richard Bryant

of the building vary in height, and because funding cuts prevented the upper part of the cross-shaped structure from being constructed, the corridor is discontinuous on upper floors.

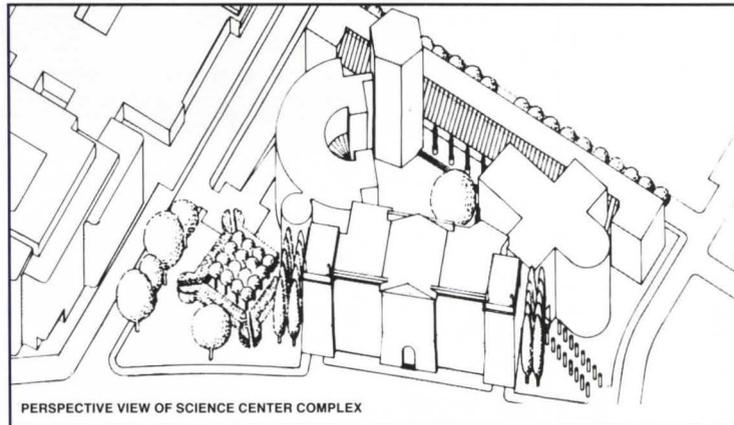
The strength of the building lies in its detailing, especially in their expression of the function or fabrication of materials. On the façade, for example, joints are devoid of mortar where stone is used as cladding, and filled and pointed where stone has a supporting function. And the stucco façades are colored using a layered painting technique, typically found on 18th-Century palaces of Berlin and Potsdam, which reveals the rhythms of the workman's brush.

As with these details, there are a number of spaces in the WZB that one discovers only after some exploration. A north-facing exit in the semicircular building, for example, leads to a quiet garden and orchard, whose perimeter forms the castlelike outline of a possible future addition to the building. The library tower's fire stair, with its acid-yellow steps, black walls, and sky-blue ceilings, gives access to small loggias on the upper floors. And in the courtyard, supporting the glass-roofed loggias, are concrete columns encasing drainpipes that have been tuned to hum as the rain runs through.

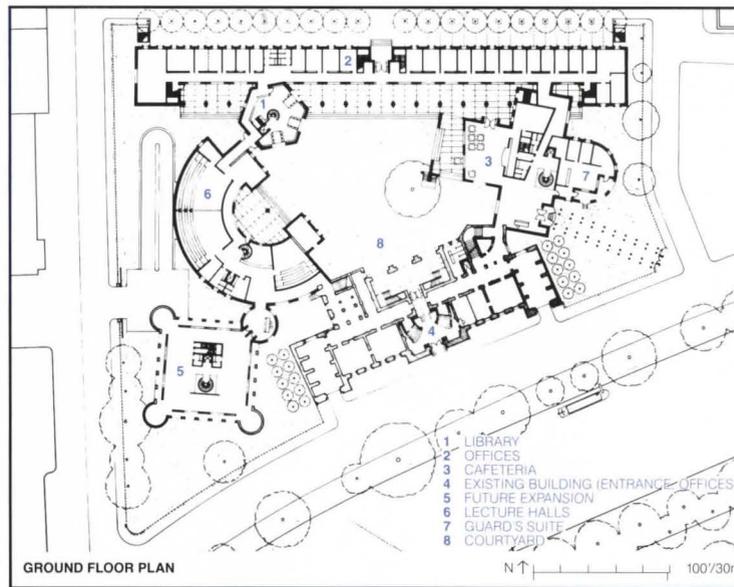
**Stirling** (continued from page 23) and roughly two hundred small offices for researchers studying the environment, sociology and management—are linked by a corridor that meanders through these different building forms.

Indeed, the corridor, in places, seems to take on a life of its own. It curves, disappears, and then reappears, passing in some places along the courtyard and at other times offering glimpses out to the city. The shifting view transforms this seemingly endless path into a changing promenade; the mundane has been rendered new.

Unfortunately, however, one can make a complete circuit through the building only at ground level. Because the parts



PERSPECTIVE VIEW OF SCIENCE CENTER COMPLEX



GROUND FLOOR PLAN



Science Center's interior court and loggia.

Richard Bryant

The architecture of the WZB, with its orange and blue exterior stripes, may appear to some as just a brash essay in Post-Modernism. But it succeeds at another level, creating a place in which employees of this science center seem already to feel at ease. On a recent visit, I observed that someone had placed a box of geraniums on a window sill, someone else had taped a giant lung x-ray on a window, while still others had begun to grow tomatoes and sunflowers on top of the unfinished cross-shaped structure. Whatever its appearance, the WZB is an informal, humane building—an apt setting for an institute of social research. **Mary Pepchinski**

*The author is an architect working in West Berlin who writes frequently for P/A.*

**Piggyback** (continued from page 25) Upper West Side," according to the Landmarks Commission's report. It was designated twice by the Commission, once in April of 1987 and again in August of 1988. The second designation came after a State Supreme Court in June 1988 overturned the original 1987 designation. In a decision prompted by a lawsuit

from the owner, the Court noted that one of the Landmark commissioners, architect Frances Halsband, had already effectively resigned her post when the original vote was taken—invalidate her vote and the Castle's landmark status. After the Court ruling, however, the panel redesignated the Castle. Landmark status will now require approval by the Commission of the \$2.5 million addition—and this seems unlikely given the panel's previous record on similar proposals.

The idea of incorporating an existing brownstone into a larger apartment building design is not new in New York City. A 20-story apartment building on East 79th Street now nearing completion integrates the façades of three landmarked turn-of-the-century brownstones. In other instances, however, the Landmarks Commission has rejected proposals that might compromise the structure, site, or airspace of the designated buildings even when these proposals were praised for design.

**Peter Donhauser**

*The author is an architectural historian and educator at the Metropolitan Museum of Art.*

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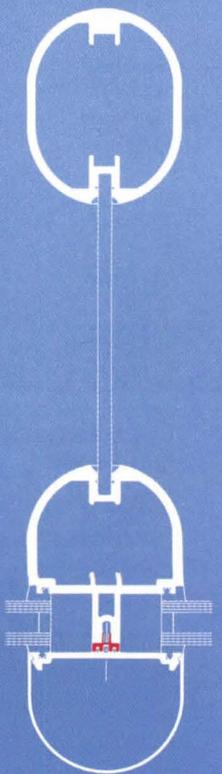
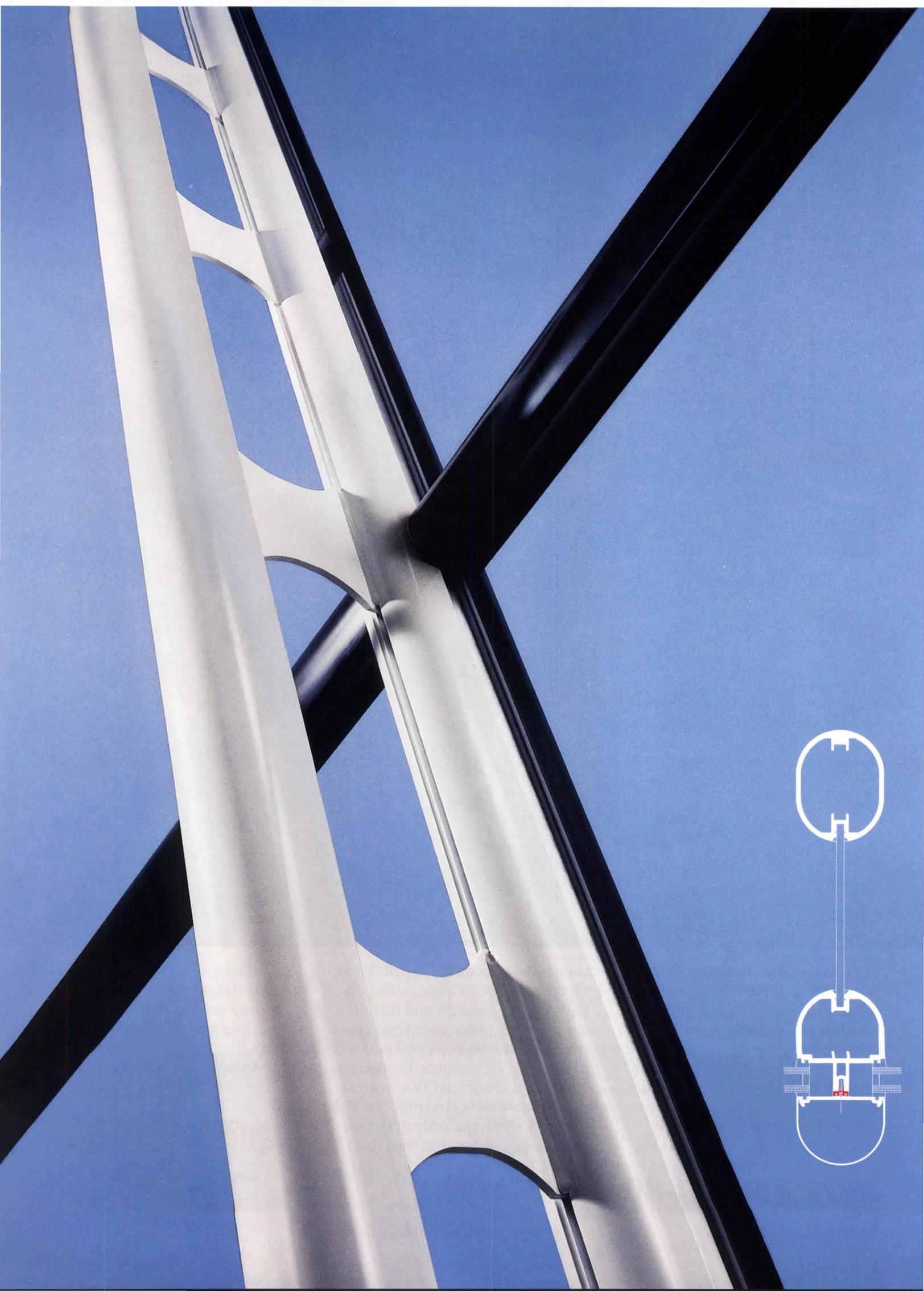
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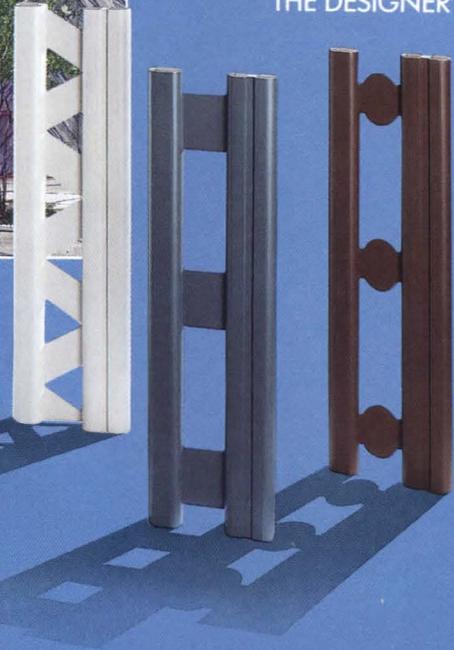
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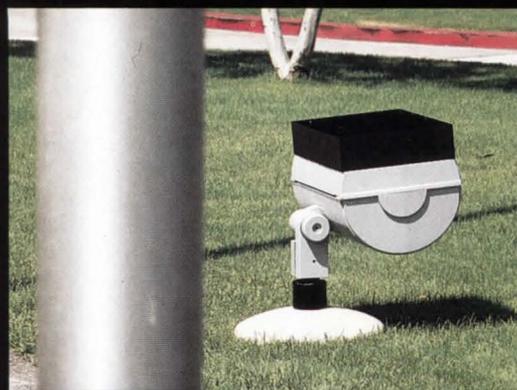


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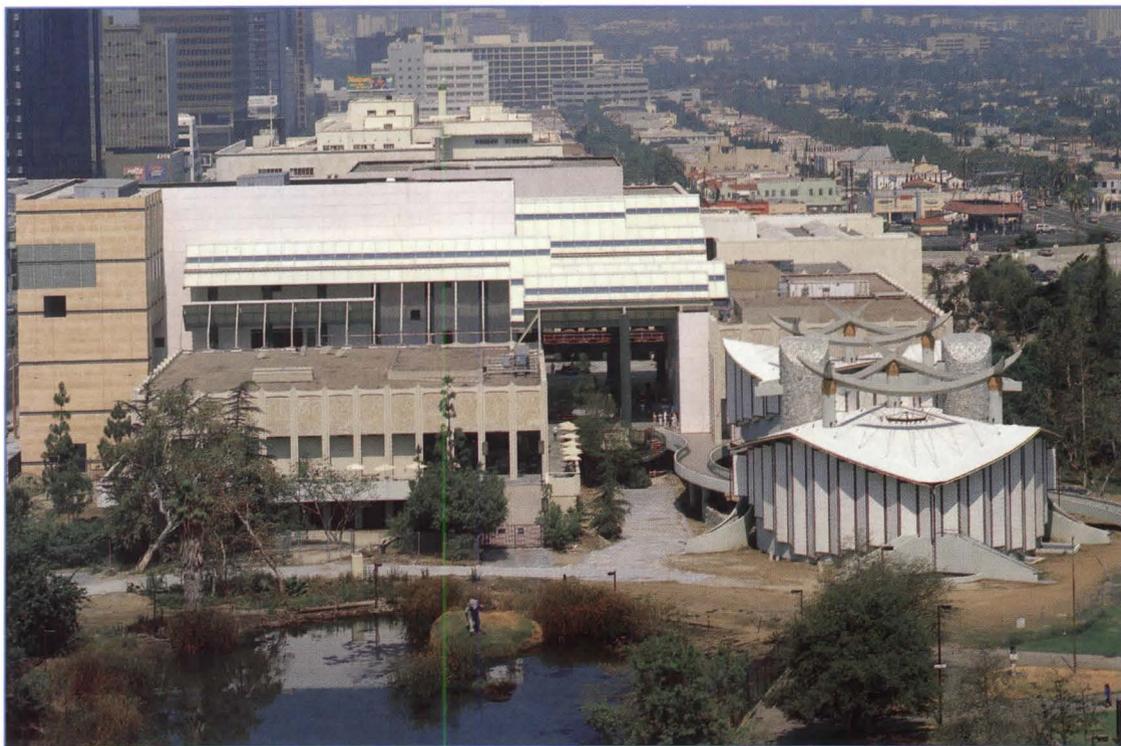


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**Bruce Goff's Pavilion for Japanese Art has been completed six years after his death by protégé Bart Prince.**



## Eccentric Pavilion for Japanese Art

Bruce Goff's Pavilion for Japanese Art at the Los Angeles County Museum of Art, while it may not be everyone's cup of tea, is one of the finest display spaces for its genre in the U.S. and a highly dramatic act of architecture.

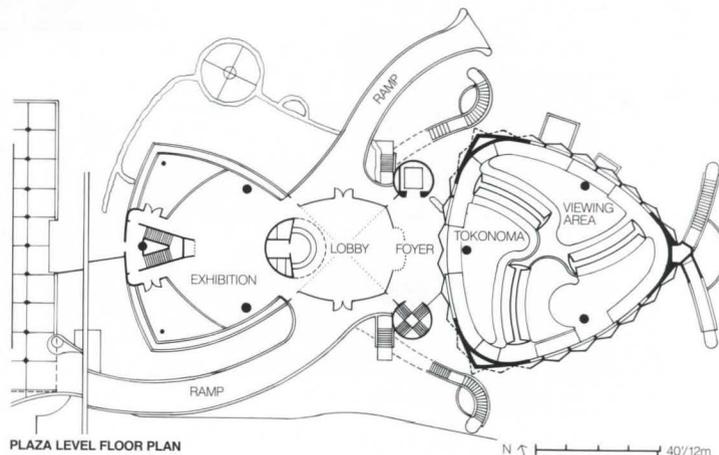
The composition of two curving triangular galleries drifts over the edge of the adjoining La Brea tar pits like a dirigible loose at anchor. Faceted wall panels made of shoji-like Kallwall, a light-filtering synthetic, seem to flutter in the breeze. Curvilinear ramps clad in greenish stucco snake into the Pavilion like hoses feeding air into the lifting structure.

The 32,000-square-foot, \$12.7 million Pavilion is the latest addition to the five-building complex that composes LACMA. The first three-building group on Wilshire Boulevard, a clumsy white limestone composition designed by William Pereira in 1964, resembles a bleached behemoth washed ashore from the oily tar pits. The 1986 Anderson Wing by Hardy Holzman Pfeiffer Associates was compared by *Time* magazine art critic Robert Hughes to "the giant foot in Monty Python."

In this confused context Goff's Pavilion is a revelation. Approached at an angle from LACMA's central court, its paraboloid roof draws the eye (continued on page 34)

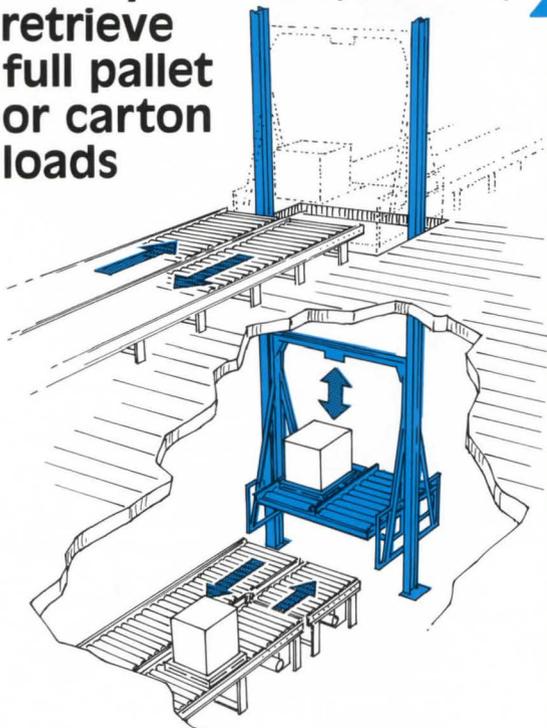


*Goff's Japanese Pavilion was designed long before donor Joe Price settled on the Los Angeles County Museum as the recipient of his collection and the gallery that went with it. The pavilion now sits at the edge of the La Brea tar pits as the latest addition to LACMA's confused campus. Its roofs are suspended via steel cables from curved steel box beams, which in turn are supported on concrete columns. Circular concrete towers clad in quartz house stairs (left) and elevator, while natural light filters into the galleries through shoji-like plastic panels.*



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A curving walkway (foreground) connects to LACMA's other buildings.

**Perspectives** (continued from page 33) along the entry ramp. The lobby that separates the two pavilions is glazed on two sides, allowing views over the surrounding Japanese gardens designed by landscape architects Hanna Olin.

The two-level west wing houses a small gallery for the close-up display of netsuke on the lower platform. The upper west gallery, for the display of freestanding Buddhist sculptures, ceramics, and lacquerware, is a grand space with a 20-foot ceiling that resembles a coffered chrysanthemum.

The east wing is the heart of both the design and the collection of Edo period screens and scrolls from the superb Shin'enkan collection gathered by Oklahoma oilman Joe Price, the museum's patron and initiator.

These are exhibited in curved alcoves, or tokonomas. Descending from the top along a spiraling ramp that connects a series of separate decks, the viewer confronts each screen or scroll one-on-one, as he might have done in the context of a traditional Japanese house.

Price had trouble finding a location for his museum. In 1976 The Metropolitan Museum of Art in New York rejected Price's

proposal for a Japanese gallery designed by Goff, objecting to, among other things, the architect's use of plastics. Price rejected the notion of building the museum in his hometown of Bartlesville, Oklahoma, on the grounds that it was too remote. Finally, in 1982, a few months before Goff's death, LACMA won out.

Goff left fellow Oklahoman Bart Prince with the task of translating his preliminary design into working drawings. Prince was responsible for choosing many of the exterior materials and had to shepherd the design through strict California seismic statutes, developing a thick concrete mat that allows the Pavilion to float upon unstable subsurface silts and methane gas pockets.

The extraordinary accomplishment of the Pavilion is that it fuses so many diverse elements of Goff's eccentric design palette into a harmonious whole. The floating roof and spiral ramp, the curvilinear surfaces, the conjunction of rough-hewn stone and synthetics, the dramatic plan and section, the combination of details derived from Frank Lloyd Wright with International Style elements—all can be found in this one small building. Yet the very American drama of the design does not distract from the Japanese simplicity of its spaces, which serve the art as well as they honor the architecture.

The Pavilion's successes—most notably the quality of filtered daylight, a feature missing from many contemporary museums—may be overlooked by visitors who are put off by the architecture. Goff's work is tangential to current fashions, and much too personal to be of use to eager copiers, but his energy and surprise may well outlast many of the movements that now hypnotize our gaze.

**Leon Whiteson**

The author writes about architecture for The Los Angeles Times.



Photos: Tom Bonner

Japanese screens are displayed in stucco frames adapted from the traditional tokonoma or alcove.

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So to those who would prefer to judge a building solely by its cover, might we suggest that you respond instead to an inner calling. Call 1-800-635-7500 for the name of your local Andersen commercial representative. Or write Andersen Commercial Group, P.O. Box 12, Bayport, MN 55003.

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# TCS and the Corporate Ediface

In designing the new United Airlines Terminal at O'Hare, Helmut Jahn has made an architectural statement that is memorable for its appearance and exciting in its distinction as one of the most outstanding airport terminals in the world.

So as not to repeat the typical spiritless and dismal environment so common to such facilities, Jahn uses conceptual clarity in the choice and combination of materials.

Happily, TCS (terne-coated stainless) is used to cover the folded roof sections of the Ticketing Pavilion. Already having

weathered to an attractive, warm gray, TCS quietly contributes to the overall beauty of the terminal's total visual eloquence.

TCS is a unique roofing material. Its finest testimonial is the roster of distinguished architects such as Helmut Jahn who continue to specify it for major projects.

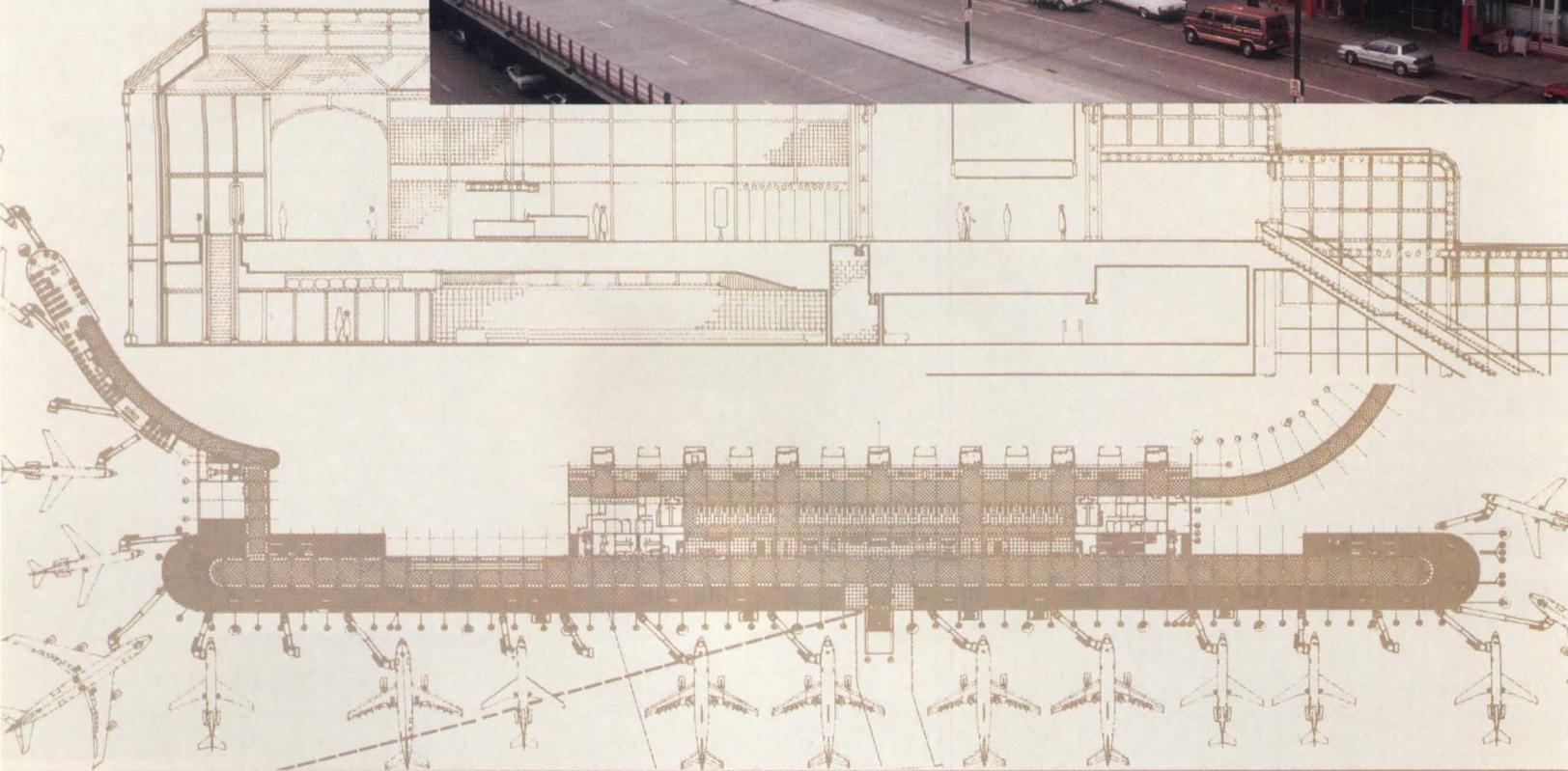
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Project: United Airlines  
Terminal 1 Complex  
O'Hare International  
Airport  
Chicago, Illinois  
Roofer: Esko-Young,  
Chicago, IL



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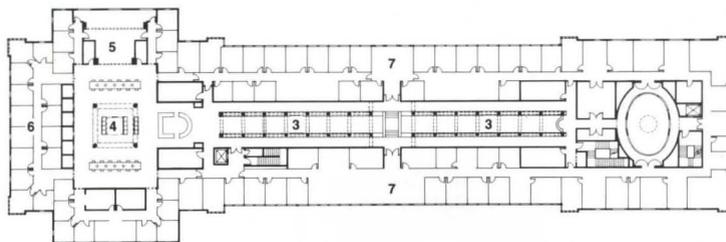
# In Progress

Five new projects on the boards at Robert Stern Architects shows the firm's expansion into commercial and large-scale residential commissions.

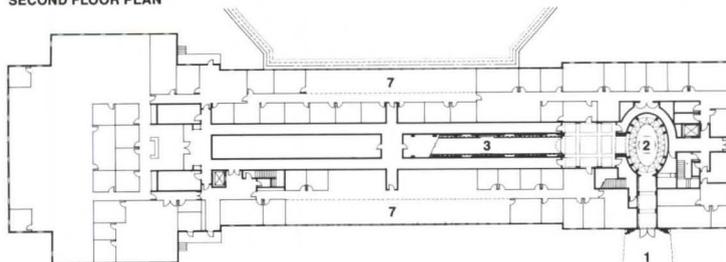


**Casting Center at Walt Disney World, Orlando, Florida.** Architects: Robert A.M. Stern Architects, New York. Designed as Disney's signature building on Interstate 4, the Casting Center brings a back-of-the-house function up front in an effort to attract new employees. The 60,000-square-foot office building says "Disney" in every detail from the initial image of a castellated bridge seen from the highway to decorative Mickey Mouse ears that double as scuppers. Job applicants pass beneath an airfoil canopy—the building's only Epcot element—into an oval rotunda. This play Pantheon is surrounded by 12 gilt statues of Disney's most famous characters. From here, these guests walk up a 150-foot-long skylighted ramp lined with trompe l'oeil Disney scenes to a second lobby lined with videos and interview rooms. This semipublic sequence, which is intended to recall rides in the Magic Kingdom, is separated from the corporate offices for employee relations, which surround ramp and rotunda. Now under construction and scheduled for completion next March, the Casting Center is the first of several Disney commissions for Stern.

(continued on page 40)



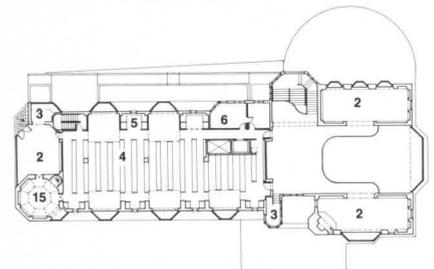
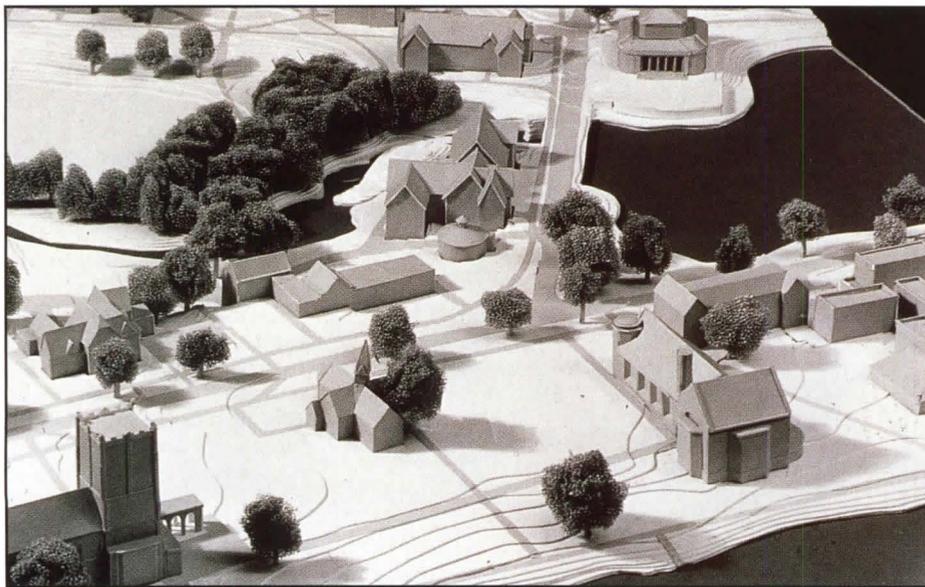
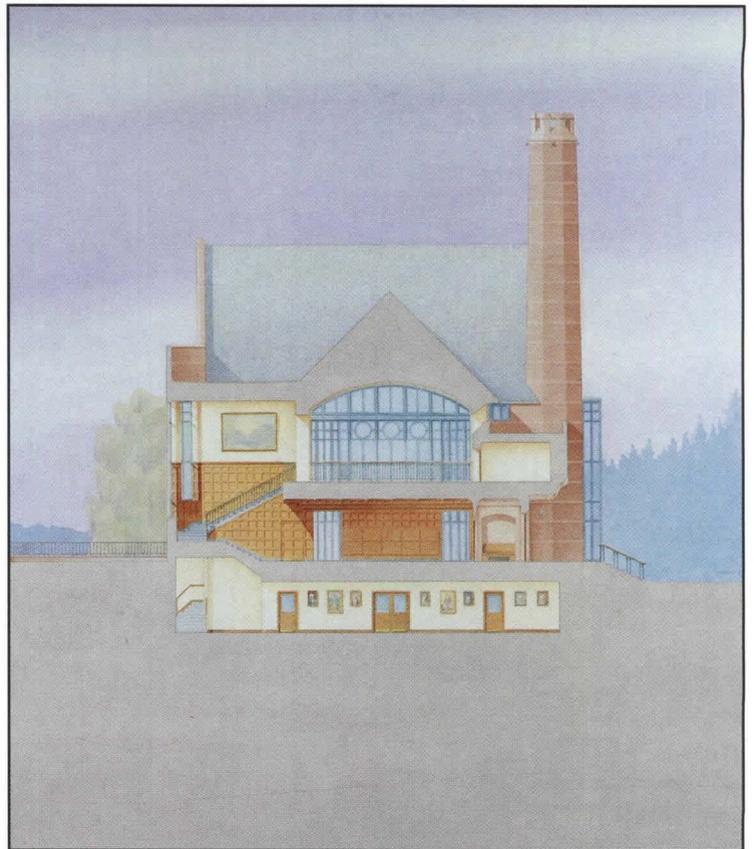
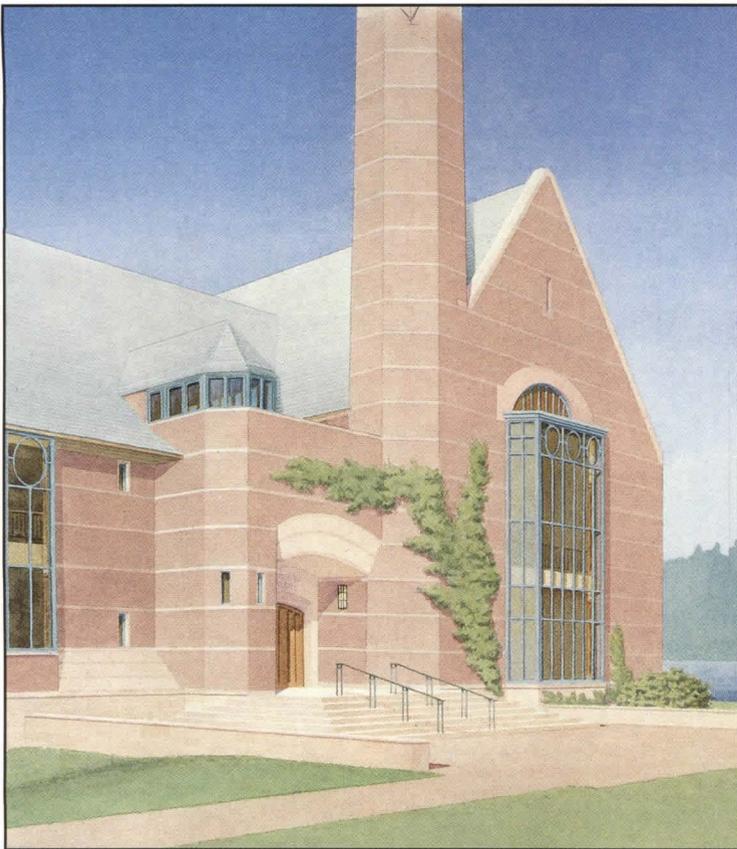
SECOND FLOOR PLAN



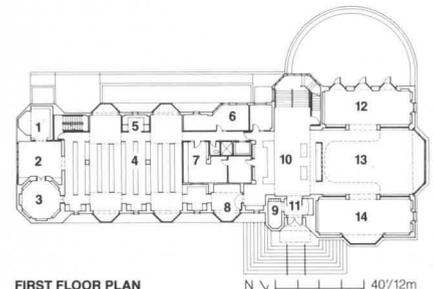
FIRST FLOOR PLAN

N 100'/30m

- 1 ENTRANCE CANOPY
- 2 OVAL LOBBY
- 3 RAMP
- 4 GENERAL EMPLOYMENT LOBBY
- 5 THEATER
- 6 INTERVIEWING OFFICES
- 7 OFFICES



SECOND FLOOR PLAN



FIRST FLOOR PLAN

- 1 LANGUAGES ROOM
- 2 READING ROOM
- 3 STUDY
- 4 STACKS
- 5 CARREL
- 6 LIBRARIAN OFFICES
- 7 BOOK PREPARATION
- 8 PHOTOCOPIY
- 9 COAT ROOM
- 10 HALL
- 11 ENTRANCE
- 12 PERIODICAL ROOM
- 13 MAIN READING ROOM
- 14 REFERENCE ROOM
- 15 ALUMNI BOOK COLLECTION

**In Progress** (continued from page 39)  
**St. Paul's School Library, Concord, New Hampshire.** Architects: Robert A.M. Stern Architects, New York. This 32,000-square-foot library was placed so as to preserve views of the lake. As sited, it creates two quadrangles, closing a residential courtyard to the south and completing the campus's chief public court to the north. Its design and details reflect Henry Vaughan's Gothic Revival Chapel of St. Peter and St. Paul, which faces the library across the northern quad and James Gamble Rogers' Old

Schoolhouse. The building will be clad in sandstruck brick with red sandstone trim, with a roof of Vermont slate. Inside, compact stacks are surrounded by traditional reading rooms and intimate seating niches, which alternate with study carrels. The architects have also designed custom leather furniture and white oak chairs and tables with linoleum insets, which are used throughout the library. Now under construction, the 100,000-volume facility should be completed by May 1990.

(continued on page 42)

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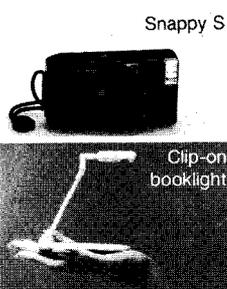
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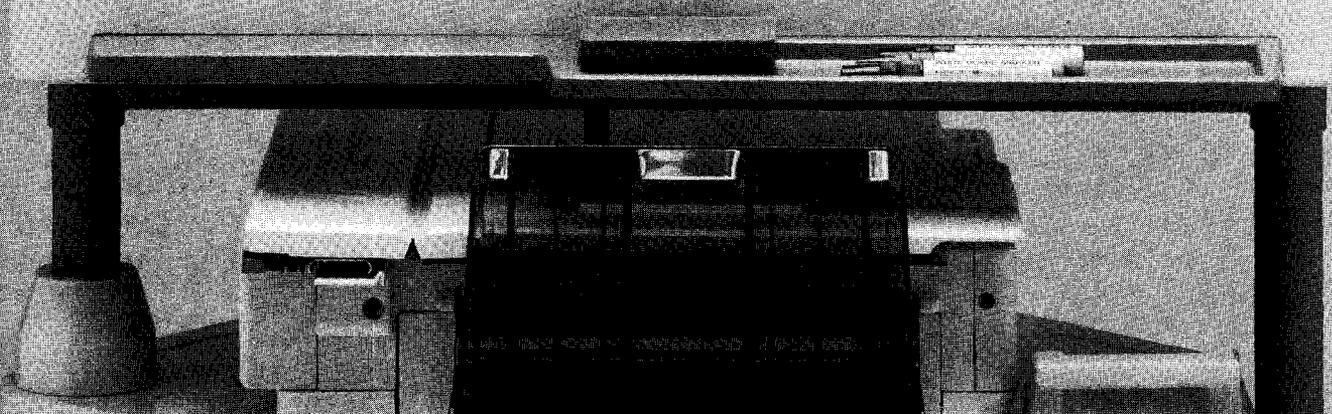
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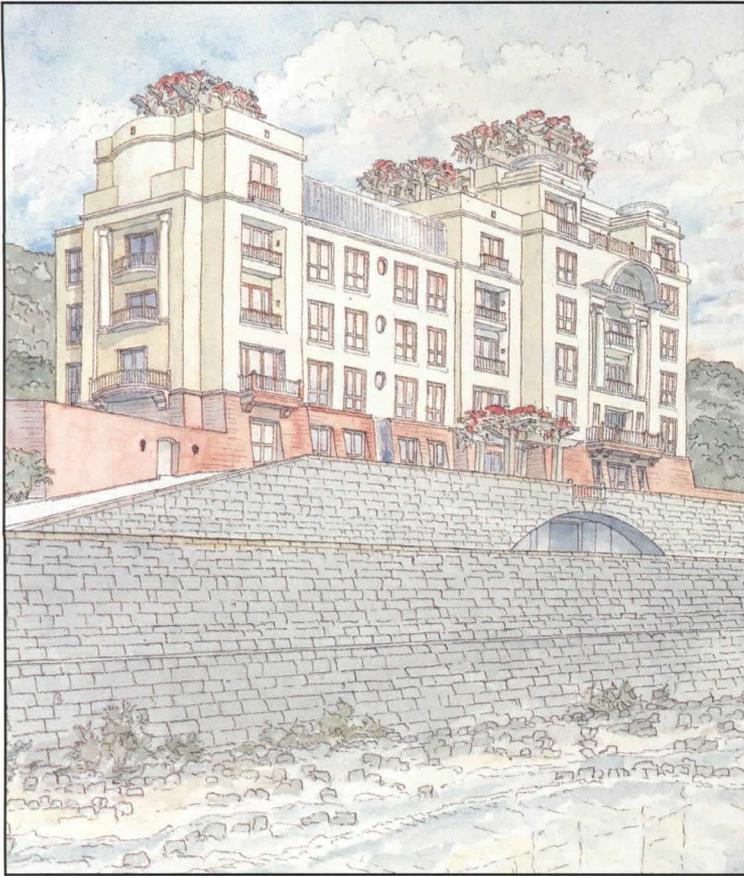
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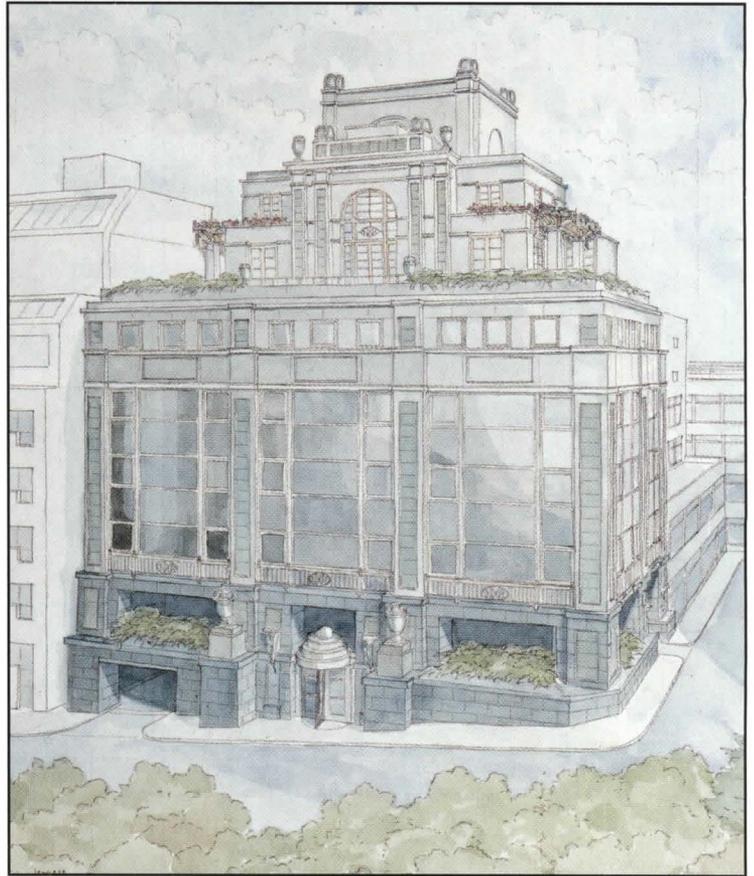
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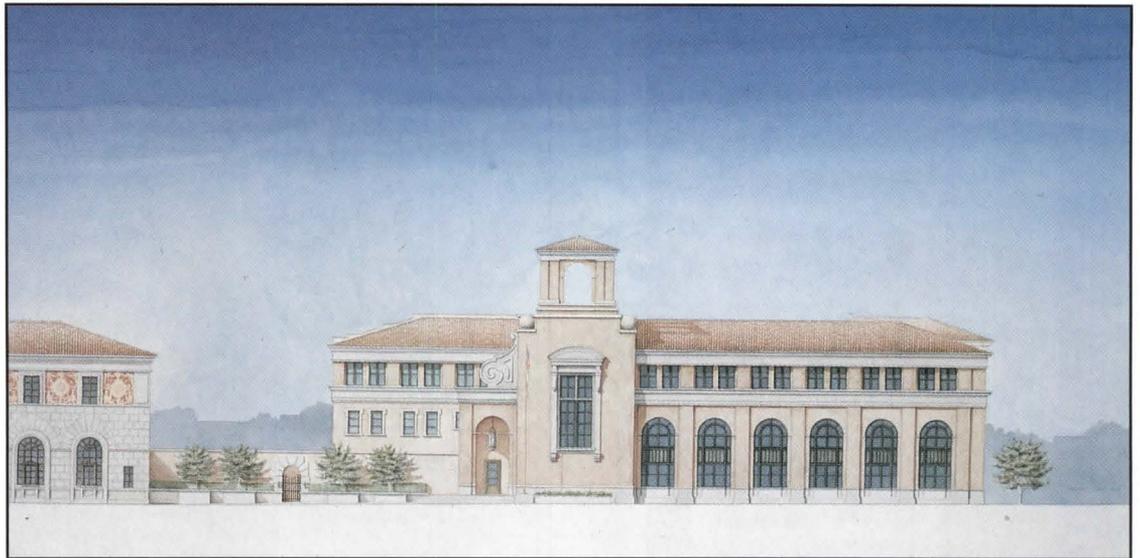
1



2



3a



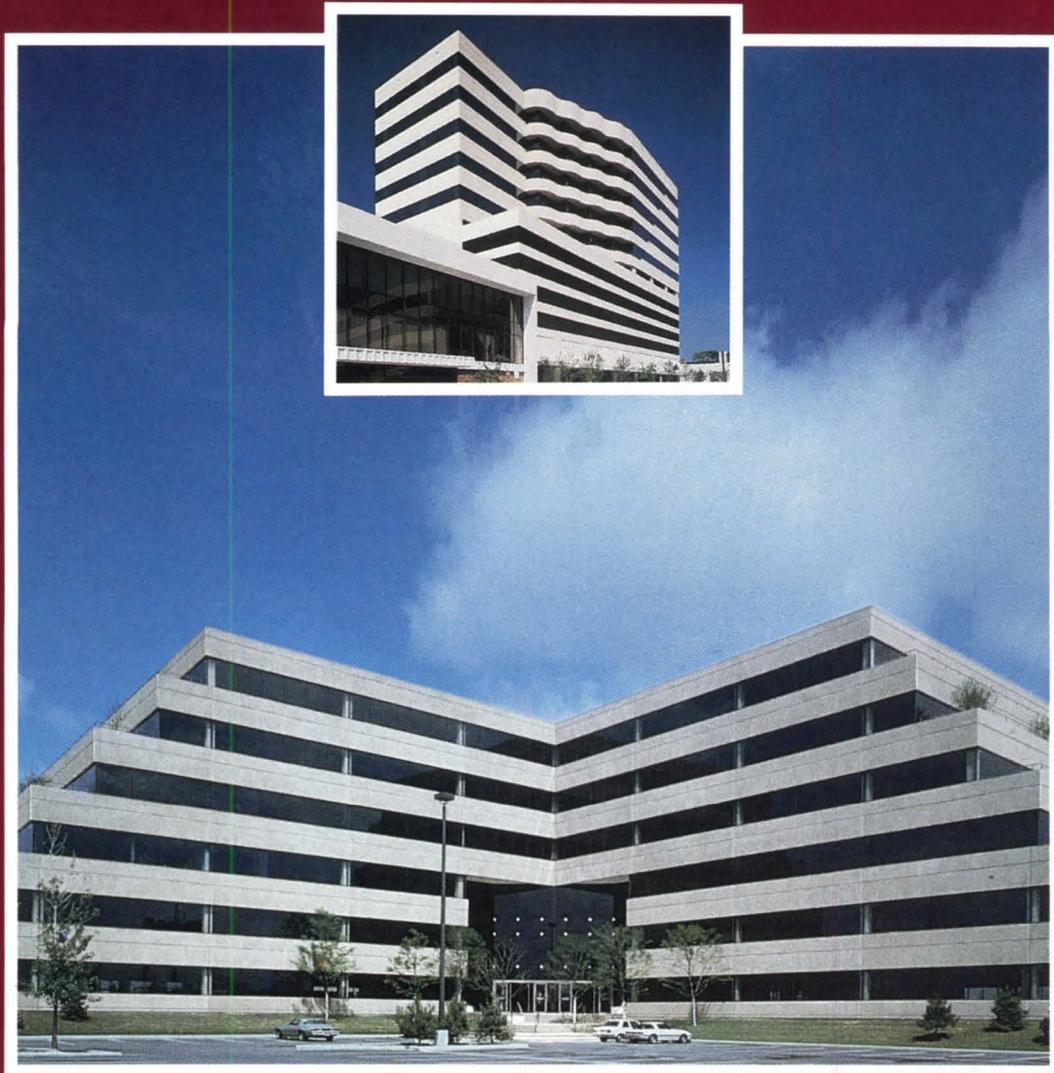
3b

**In Progress** (continued from page 40)  
**1 Cap d'Akiya, Hayama, Japan.** Architects: Robert A.M. Stern Architects, New York. Associated architects: Kajima Corporation, Tokyo. "I like to think we're in the tradition of Sir Edwin Lutyens and other architects who went East and built buildings there that are not like what's at home," says Robert Stern of his office's design for an apartment building in a coastal resort outside Tokyo to be completed in 1990. The building's battered base is described by the architects as a reference both to Lutyens' work in New Delhi and to medieval Japanese fortresses. Five floors of ten apartments total are topped by a penthouse and pool terrace.

**2 Bancho House, Tokyo.** Architects: Robert A.M. Stern Architects, New York. Associated architects: Kajima Corporation, Tokyo. This seven-story office building in Tokyo was already under construction when the architects were commissioned to redesign its façades and penthouse apartment. The new façades are composed of green and black granite, gray stucco, and aluminum windows with stainless steel finish and black reflective glazing. They show the client's preference for traditional Western architecture, echoing the abstract Classicism of the nearby British Embassy. The principal rooms of the penthouse open onto a garden terrace.

**3 Pasadena Police Building, Pasadena, California.** Architects: Stern-Ehrenkrantz/Kamages, a joint venture of Robert A.M. Stern Architects, New York, and Ehrenkrantz/Kamages, Architects and Planners, San Francisco. This 85,500-square-foot, L-shaped police station is the first building to be added to the Pasadena Civic Center since its completion in the 1920s. Although designed for maximum security as required by the 70-bed short-term retention cell on the lower level, the station's style and materials are those of a civic structure. Behind its arched windows and stucco façade are two floors of offices. The project will be completed in spring 1990.

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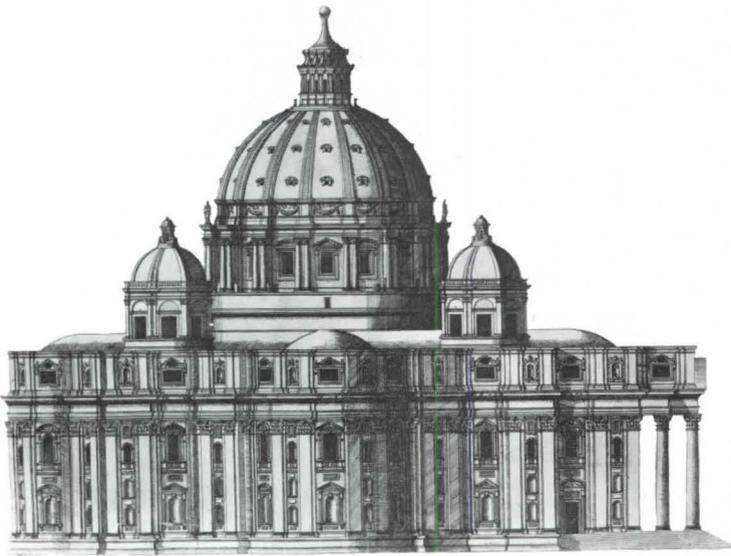
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*Elevation, St. Peter's Basilica, from Michelangelo exhibition at National Gallery of Art through December 11.*

## Exhibitions

### Through November 27

Art Nouveau in Munich: Masters of Jugendstil. Philadelphia Museum of Art, Philadelphia. Also, **Dec. 22–February 19**, Los Angeles County Museum of Art, Los Angeles.

### Through November 27

The Work of Bruce Goff. Los Angeles County Museum of Art, Los Angeles (see p. 33).

### Through November 30

Arata Isozaki. Kirsten Kiser Gallery, Los Angeles.

### Through December 4

The Collection, including drawings and models by John Hejduk, Daniel Libeskind, Tadao Ando, Mario Botta, Josef Paul Kleihues, Jean Nouvel, Aldo Rossi, and Office of Metropolitan Architecture. Arts Hall Rotterdam '88, Rotterdam.

### Through December 6

Everyday Masterpieces: Memory and Modernity, a look at Modern Architecture. The Urban Center, New York.

### Through December 11

Michelangelo: Draftsman/Architect. National Gallery of Art, Washington, D.C.

### Through January 7

Gaetano Pesce: Drawings, Models, Prototypes. Max Protetch Gallery, New York.

### Through January 8

Architecture on Paper: A Decade of Acquisitions. Metropolitan Museum of Art, New York.

### Through January 8

Erich Mendelsohn: 1887–1953. Cooper-Hewitt Museum, New York.

### Through January 8

Architecture Tomorrow: Frank Israel. Walker Art Center, Minneapolis (see P/A, Aug. 1988, p. 25).

### Through January 31

Frank Lloyd Wright and the Johnson Wax Buildings: Creating a Corporate Cathedral. Chicago Historical Society, Chicago (see P/A, April 1986, p. 27).

### Through February 6

O'Hare—Airport on the Prairie: Photographs by Robert Burley. Chicago Historical Society, Chicago.

### Through February 12

The Architecture of the Synagogue. German Architecture Museum, Frankfurt, West Germany.

### Through December 1991

The Chicago Street: 1860–2000. The Chicago Historical Society, Chicago.

### December 9–January 16

Gerrit Rietveld: A Century Exhibition. Struve Gallery, Chicago.

### November 28–December 10

The Fine Art of American Industrial Design. National Arts Club, New York.

## Conferences

### November 17–18

Builders Examine the Many Faces of Homelessness: Laying a Foundation for Action, Hilton Hotel, Washington, D.C. Contact Jan Schettler, Home Builders Institute, 15 & M Sts., N.W., Washington, D.C. 20005 (202) 822-0580.

## Competitions

### November 15

Entry deadline, Rome Prize Fellowship. Contact Fellowships Coordinator, American Academy in Rome, 41 E. 65th St., New York, N.Y. 10021-6508 (212) 517-4200.

### November 15

Entry deadline, Fairfield 2000: Affordable Housing Competition. Contact Connecticut Committee of Regional Planning Association, 500 Summer St., Stamford, Conn. 06901.

### November 22

Registration deadline, Library of Alexandria Open Design Competition. Contact Secretary General, International Union of Architects, 51, rue Raynouard, 75016 Paris.

### November 30

Registration deadline, Future of the Industrial City, **submissions due May 1989**. Contact International City Design Competitions, School of Architecture and Urban Planning, University of Wisconsin-Milwaukee, P.O. Box 413, Milwaukee, Wisc. 53201 (414) 229-4014.

### December 1

Entry deadline, Rudy Bruner Award for Excellence in Urban Design. Contact Program Coordinator, Rudy Bruner Award, 244 Fifth Ave., New York, N.Y. 10001 (212) 889-5366.

### December 1

Entry deadline, design competition for the U.S. Pavilion at the 1992 World's Fair. Contact Expo 92 Evaluation Panel, United States Information Agency-P/EBS, 400 6th St., S.W., Room 1651, Washington, D.C. 20547 (202) 485-6414.

### December 15

Registration deadline, Freeway as Art Competition, **submissions due Feb. 17**. Contact Department of Landscape Architecture, 321 Langford Architecture Building, Texas A&M University, College Station, Texas 77843-3137 (409) 845-1019.

### December 15

Entry deadline, Awards for Excellence in Glass. Contact Competition, National Glass Association, 8200 Greensboro Dr. #302, McLean, Va. 22102. (703) 442-4890.

### December 16

Registration deadline, Korean War Veterans Memorial Design Competition. Contact Competition, P.O. Box 17045, Baltimore, Md. 21203-7045 or call Col. Frederick C. Badger (202) 272-0535.

### December 20

Registration deadline, Celebrating a New Legacy: Design Competition for Senior Housing. Contact City of Colton, 650 No. La Cadena Dr., Colton, Calif. 92324 or call Brian Oulman (714) 370-5071.

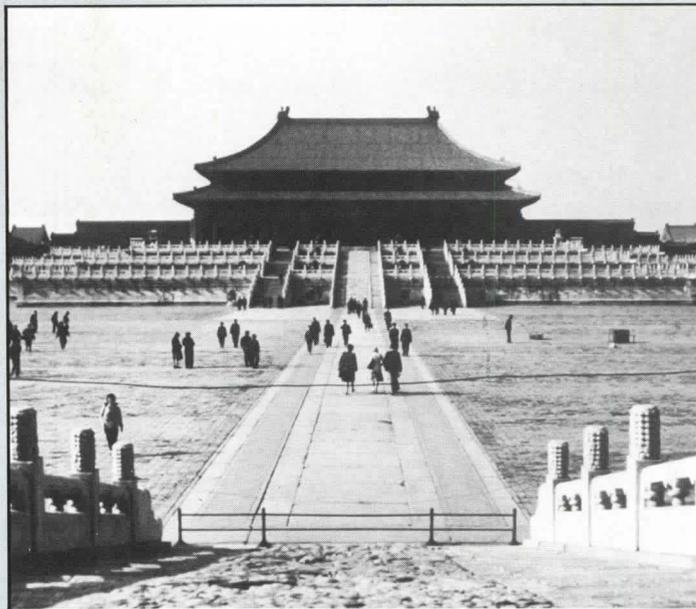
### January 16, 1988

Registration deadline, Clemson University Performing Arts Center Competition. Contact Clemson PAC Competition, The Moorman House, 115 North Palmetto Blvd., Clemson University, Clemson, S.C. 29634-5951 (803) 656-2010.

### February 1

Registration deadline, Future Now, international design competition for prototype energy-efficient tower sponsored by Southern California Edison. **Submissions due February 10**. Contact Future Now, 1870 N. Vermont Ave., Suite 555, Los Angeles, Calif. 90027 or call Design Development Services (213) 660-8191.

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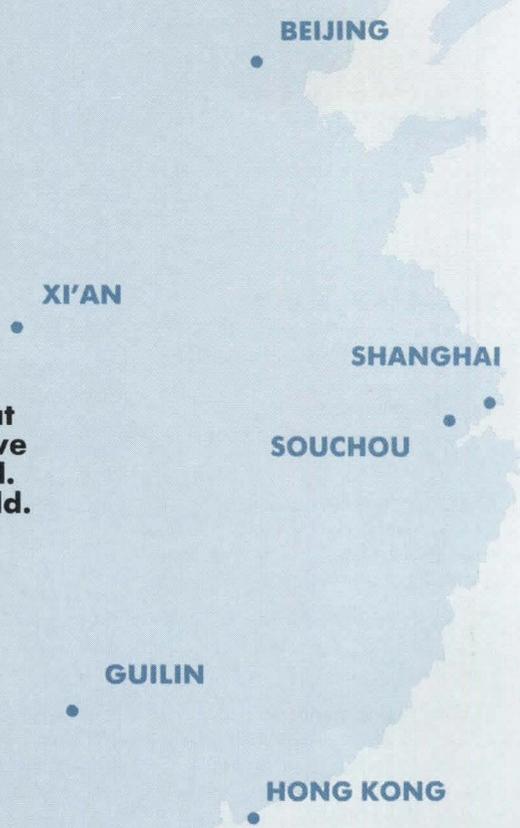
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“None of us studied architecture expecting to be defendants in a lawsuit. Most architects are creative people—they may or may not be businessmen, although the better they are in business the better it is—but few expected to be defendants in this changing profession. It’s something that has affected me personally, and, I expect, the growth of many architectural firms. It’s caused me concerns, maybe burned me out, in spite of the fact that we’ve won every one of our suits.

In the middle ’70s to the early ’80s, I felt insurance was the biggest problem architects faced—that and litigation. And it’s a continuing problem, no question about it. But I think that today DPIC Companies is with us for our entire future. Although we had only had two other insurers in 69 years, we really moved away from our previous insurer without any hesitation. DPIC was the first insurer that ever discussed loss prevention. And they were the first insurer that ever gave a damn about how we practiced architecture. That makes us very comfortable. Because, really, they are the most important partner in this firm. They provide us with the assurance we need to know they are going to be there. They assist us in undertaking contracts and procedures necessary to try to keep out of trouble in this litigious world. They provide us with legal counsel when there’s a problem brewing. In fact, we took advantage of their Early Warning program just this week.

I feel very good about them.”



*Markin David Dubin*

*Dave Dubin is a principal in Dubin, Dubin and Moutoussamy, a 75-year-old architectural firm based in Chicago. He is past president of both the Chicago and Illinois AIA. We value our relationship with his firm and thank him for his willingness to talk to you about us.*

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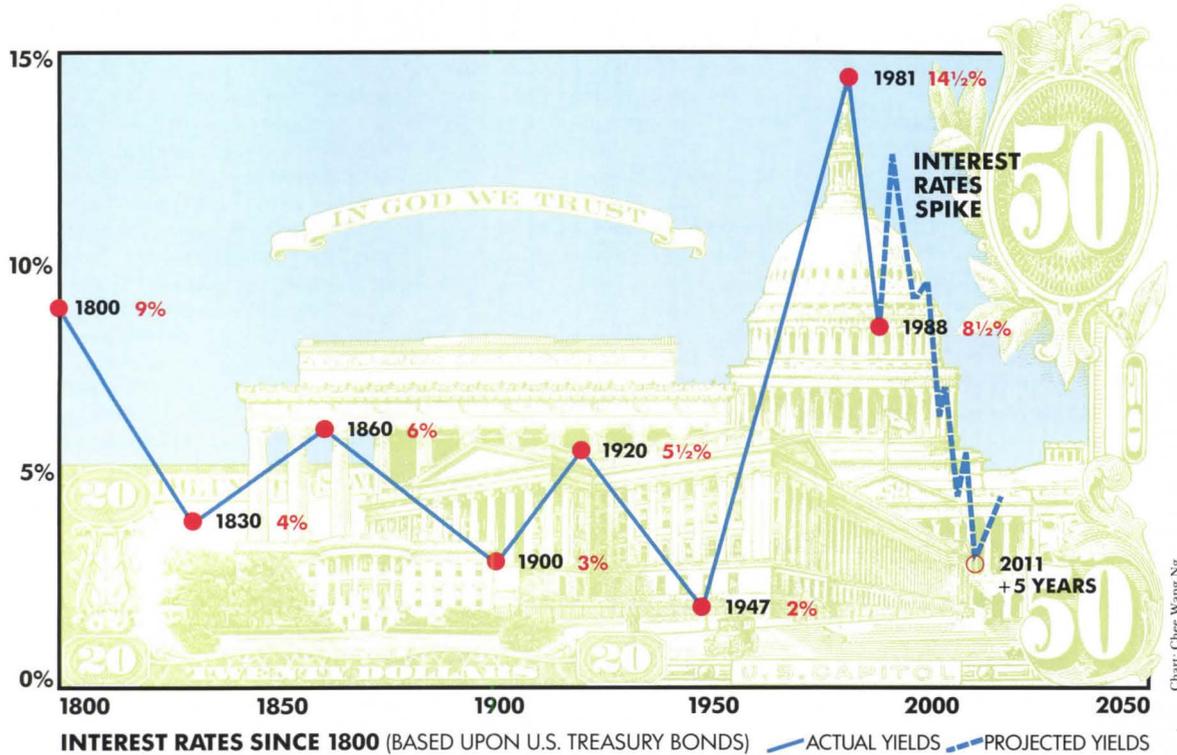


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**Economics:** William Voelker tells how to spot recession.  
**Law:** Robert Greenstreet discusses licensing requirements.  
**Specifications:** Walter Rosenfeld looks at the needed support for specified products.



## Practice Points

**Manufactured housing production** (including mobile homes, modular homes, and precut and panelized systems) accounted for 26.4 percent of one-to-four-family housing units constructed in 1987, according to F.W. Dodge's LSI Group. Mobile homes remain the most common manufactured type, although their share of the new housing market has dropped from 24 percent to 15.5 percent since 1982.

**A/E Job Mart**, an employment newsletter for design professionals, began publication this summer. The publication features advertisements for employment opportunities around the nation, and is published by Practice Management Associates, 10 Midland Avenue, Newton, Mass. 02158.

**A recent bill to license interior designers in the state of New York passed the state assembly but died in committee in the senate. A new bill is expected to appear in the next legislative session in January, despite an extensive lobbying effort against licensing by New York AIA chapters.**

**Construction costs showed signs of leveling off in the second quarter of 1988, according to ENR, which reported an increase of less than one percent. The magazine says that stable concrete and labor costs made up for rising steel prices to slow the increase.**

**Office building tenants continue to be a restless group; half the tenants in North America changed their business addresses over the past three years, according to a BOMA survey. Twenty-five percent of the tenants surveyed said they are currently considering a move; most cited changing space needs as the reason.**

## Economics: Credit Markets and Rates

Without credit markets, 98 percent of architects would be out of work. Plentiful and reasonably priced financing obtained through those markets helps build a nation's stock of real assets. But interest rates, the cost of buying that money, display a strong negative effect on construction levels as they increase. (In general, construction thrives best when the Prime Rate is below eight percent.)

### The Credit Cycle

Credit and interest rates, when examined over almost two centuries (see chart), show that rate cycles extend over much longer periods than do stock market cycles (see P/A, June 1988, p. 63). Further, the debt (or bond) markets dwarf the equity (or stock) markets, involving roughly three times the annual dollar volume.

Credit creation is a very sensitive process: A confident borrower must apply for a loan from a banker who is sufficiently confident to lend out the funds of an

(continued on page 54)

## Law: Licensing Precautions

It is interesting how protection of the title "architect" still arouses emotion and concern within the profession. The cause for concern is understandable. The profession is faced with a relatively small workload for its 62,000 members,<sup>1</sup> is constantly under pressure from legal suits

(continued on page 56)

## Specifications: Mr. Goodspec

At every stage of a project's development and in all parts of the work, what construction specifiers look for is the right product for the job. And how do they know when a product is right? Manufacturers tell them, and in many ways.

One of the most important ways is with technical information that describes the item's characteristics, its composition, its installation, its recommended applications, and its limitations.

Though product advertising serves well the purpose of raising interest by calling attention to

(continued on page 60)

**Economics** (continued from page 53) equally confident depositor. For the first decade or so of each credit up-cycle (1830-40, 1900-10, and 1947-57 on the chart), the participants find their confidence reinforced by actual economic and financial events. Nearer mid-cycle, competition for new loan business intensifies, and lenders' cash reserves, taken as a ratio of outstanding loans, begin to shrink. People begin to view debt as wealth.

Toward each cycle's completion, loans begin to be advanced contingent upon not only the income associated with a certain building or business, but also upon the *presumptive* value of that asset on the auction block, today or tomorrow. The result is

that prices are pumped up for those assets that can be financed: existing real estate, common stocks, commodity inventories, and new construction to name just a few.

Even marginal issuers, underwriters, and investors climb aboard the credit market bandwagon just before the music stops. "Borrow boldly," "buy cleverly," and "refinance advantageously" become the passwords in a supposed "new era" of financial success. As occurred most recently in the mid-1980s, this makes for hyperfinancial markets that become top-heavy in relation to nonfinancial production. Within this economic environment, auditors, bank examiners, and governmental

regulators are swamped and inevitably allow financial parasites to flourish. A booming economy covers a lot of sins.

Interest rates peaked most recently in 1981, followed seven years later by that great financial divide in both leverage and equities: the stock market crash of last October. Lower prices on Wall Street have a way of putting pressure on the price of everything from commodities to real estate and, in turn, depressing consumer psychology. For these reasons, architects should now closely monitor the ongoing "story" being told daily within the financial markets.

**The Coming Recession**

A recession is defined as three

consecutive quarters of decline in *real* GNP. Contrary to the recent statements of some economists and financial analysts, the next recession only involves a question of when, not if. No one alive can accurately predict its timing, extent, or duration, but today's virtually unprecedented levels of governmental, business, and personal leverage ensure very high levels of debt-distress at that time.

Should the United States Government feel palpable debt-distress, it could be forced into the inflationary sleight-of-hand of placing its 14 intaglio high-speed currency printing presses (imported from Germany) on overtime. But permanent high inflation remains unlikely precisely because it would benefit the great majority of Americans: stockholders, owners of residences and land, indexed pension recipients, corporations that are in debt or have issued debt, heavily indebted banks, junk bond holders, and participants in leveraged buy-outs.

Financial markets have a way of frustrating the majority, and so inflation probably now carries the seeds of its own destruction. The financial markets have become so sensitive and sophisticated that the bond market has become an inflation weather vane and is now literally running the economy. Bonds would plummet at the first real inflation, sending interest rates up.

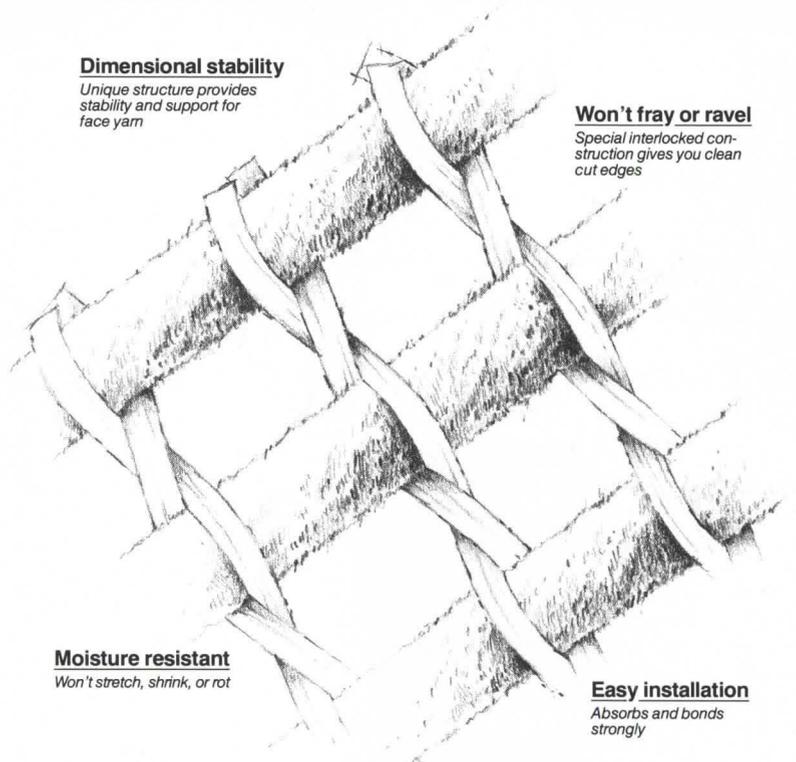
Soaring rates combined with the recession they would undoubtedly initiate would create a financial vise built of fixed-to-rising interest rates on one side, and fixed-to-declining earnings and governmental revenues on the other. The resulting squeeze on individuals and businesses would cause them to dump truckloads of lower- and medium-grade bonds, other securities, and some assets on the market at the same time to raise sorely needed cash. Dependable cash flow and income, such as that from top-rated bonds, would become the keys to both personal and professional survival for everyone.

As upward spiking interest rates rippled through credit cards, adjustable rate mortgages, and other susceptible vehicles, the resulting onslaught of defaults would purge our economic system. This could be followed by a downward conservatism. Debt would again become a four-letter word, with even mortgages being viewed suspiciously. The rate spike would stand as the last

(continued on page 56)

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**Economics** (continued from page 54)  
return to double-digit interest rates for up to two decades.

**Following the Indicators**

You can look for the signs of recession by writing to the Federal Reserve Bank of St. Louis at P.O. Box 442, St. Louis, MO 63166 (or calling them at (314) 444-8444) and asking to be placed on the mailing list for the free weekly document "U.S. Financial Data." Each issue begins with an introductory list of the week's "highlights" followed by charts covering interest rates, monetary and banking figures, selected yields, and levels of borrowing activity. Review the charts, keeping in mind that high and/or rising interest rates

hurt construction, while low and/or declining rates facilitate it. An architect should also be aware of the following:

- When loan demand is rising excessively, it puts upward pressure on rates, and when it drops dramatically, it serves to lower rates. The "Business Loans" chart includes a table showing compounded annual rate of change for loan demand. Readings of nine percent or above generally indicate existing upward pressure on rates, while below nine percent, the pressure on rates is downward.
- The yield curve measures short- versus long-term interest rates. It is measured by subtracting the Commercial Paper yield from the Corporate AAA Bond

yield on the same chart. When the resulting yield curve is positive, pressure on rates is downward. A negative remainder has the opposite effect.

- When the spread between 3-month Treasury Bills and the higher-yielding certificates of deposit or "90 Day CDs" (on adjacent charts) remains above one percent, it indicates that financial markets are displaying nervousness about their own overall health. A spread below 7/10 of a percent indicates confidence in our financial system.
  - With all the debt around, a sustained decline in the monetary base and money stock charts would be dangerous.
- Becoming conversant with national and international

money and credit markets may become central to the successful architectural practice of the future. These markets proffer insights into the political and economic forces shaping our world and provide a backdrop against which to develop strategies for your firm.

Even the CEOs of America's major corporations are often ill informed about the workings of the financial markets, as their high level of buying back their own corporate stock makes clear. An architectural profession that is highly informed on these markets has the opportunity to secure a valuable competitive advantage in relation to the rest of American business.

**William Voelker**

*The author is an Associate Professor at the University of Illinois, School of Architecture, and published The Economic Newsletter for Architects for several years.*

**Law** (continued from page 53)

to maintain exacting standards of care, and yet has to compete with the myriad of "designers" and "architectural consultants" who seem to encroach upon much of the available work. Even when licensing is achieved, requirements vary considerably between the states and can provide a number of pitfalls for the architect.

A brief examination of the 51 statutes governing architectural licensing indicates a broad variety of requirements. Some states protect the title of architect, for example, by restricting its use to appropriately qualified individuals, while others legislate the practice of architecture instead. Requirements for those wishing to practice also vary and may include a variety of examinations, periods of practical experience, residency, or citizenship. Interviews and/or references may also be required of prospective candidates. Codes of conduct promulgated and enforced by the states tend to vary as well, although they are likely to be similar to the American Institute of Architects' code.

Whether each state controls the title of architect or the pursuit of practice, there are a number of variations in the definition of what constitutes architecture. Unlike countries such as France and Spain, where virtually all building requires the approval of an architect, individual states tend to exempt varying sectors of construction work based either on size, scope of work, or dollar value. Although the criteria may vary, the result

(continued on page 58)



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**Law** (continued from page 56)

is that huge amounts of work are undertaken by nonarchitects.

**Practicing with Nonarchitects**

In some states, the distinction between architects and associated professionals, particularly engineers, is blurred, and the overlap of work may mean that the latter can undertake certain architectural services if they are incident to engineering work or if the engineers can form partnerships with architects. However, the question of legitimacy of partnership with anyone other than a licensed architect should be carefully checked out, as some states require that all partners have architectural licenses, while others

insist that the partnership itself (or the managing agent of a corporation) carry an additional license.<sup>2</sup> It is important to ensure that state laws are strictly adhered to so that any contracts made between the firm and clients are valid. If the practice is illegally formed, the courts may hold that any subsequent contracts are invalid and will not enforce their provisions, making fee collection difficult.

Association with nonregistered individuals may also lead to problems, and partnerships may be held illegal, thus invalidating any contracts made with clients. Similarly, the expedient of "plan-stamping"—the application of an architect's seal to drawings prepared by another

not necessarily in their employ—may lead to disciplinary action if it is proved that the work was substantially undertaken by a nonregistered individual, that the stamper did not adequately review the work, or that it was not under his/her direct supervision or control. Furthermore, by stamping the drawings, the architect takes full liability for their adequacy and can expect to be held directly responsible for any inadequacies they may contain.

**Practicing Out-of-State**

Although the NCARB provides some degree of national uniformity regarding licensing, it is primarily an informational body that can be used by states at their discretion. Licensing in one state,

even if the architect holds an NCARB certificate, does not necessarily mean that another state's legislation will be satisfied. Therefore, if architects wish to practice outside their home state, licensing requirements must be carefully evaluated before any work is undertaken. The commencement of a contract where the architect is not licensed in the state where the work is proposed may be invalid and mean that fee collection becomes a problem. Similarly, state provisions with regard to partnerships may vary, and it may be necessary for all parties to obtain registration, unless the contract is formed in the individual name of only one licensed partner. Although reciprocity does exist between many states and in-state registration or temporary licenses can be successfully obtained, the necessary paperwork should be completed *before contract formulation* to prevent potential legal battles later in the process. Although refusal to pay fees based on a license that was granted but was pending may be rejected by the courts on the basis of unjust enrichment of the client, it is better to minimize the potential reasons for nonpayment and therefore reduce the necessity for expensive and time-consuming lawsuits.

When intending to undertake work out of state, architects should check the requirements that they will have to meet in terms of licensing. It is possible that a single building commission will not constitute the accepted definition of practice<sup>3</sup> although in the more likely event that some form of license is necessary, some firms have adopted the strategy of joint venturing with a practice within the intended state. In this way, adequacy of their registration will not be in question, issues of fee collection will not be complicated by interstate jurisdictional problems, and the parent firm will have the advantages of working with a group who is familiar with local laws and contractors and who is conveniently located near the site. If joint venturing is anticipated, state law should be checked to ensure that the relationship is legitimate, and appropriate paperwork completed in advance to finalize the agreement, preferably using the AIA standard form of joint venture (AIA Document C801).

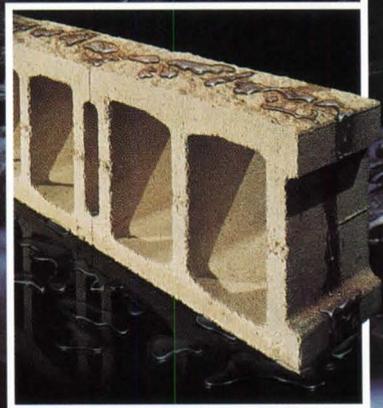
**Practicing Without a License**

Because of the strictures of registration, a number of individuals technically practice architecture

(continued on page 60)

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**Law** (continued from page 58) without a license. They may be architects registered in other states or countries, graduate students, or persons in related disciplines. If they practice in a way that violates state licensing legislation, they are committing a criminal offense and are liable to prosecution. In the event that registered architects are aware of any transgressions, they are statutorily bound in some states to inform the state chapter, who will file complaints with the appropriate Department of Regulation. More often, the unlicensed person is undertaking work that is not covered by legislation (building under 50,000 cubic feet, for example) or that does not require a stamp of ap-

proval, and is therefore competing quite fairly with the architectural profession. Although such individuals cannot use the title "architect," the terms "designer," "architectural designer," or "architectural consultant" have all been used without prosecution, despite their annoyingly close association to the profession.

However, problems have arisen with nonlicensed designers over their liability. The standard of care to which architects must aspire does not apply to nonarchitects, although if they hold themselves out to be registered either in their communications with clients or implicitly in their actions, they may be required by the courts to perform at that level. This may lead

to serious liability problems, as it is unlikely that insurance coverage is available to unregistered persons. It is important for individuals undertaking design work (particularly students or recent graduates prior to registration) to explicitly clarify to clients their status to avoid any false expectations or misunderstandings on the latter's part. Contractual language should be clear to mitigate any assumptions of registration, and if any standard forms are used, they should be carefully reworded to remove any mention of the word "architect." It must be emphasized that if individuals appear to the world (that is, to a court of law) to be practicing as registered architects, they must expect to be held

accountable for their actions at an equivalent level, regardless of their lack of professional status.

**Robert Greenstreet** ■

*The author is an Associate Professor at the School of Architecture & Urban Planning at the University of Wisconsin-Milwaukee and Chair of the Department of Architecture.*

1 A 1982 survey undertaken by Rose Mohan; an estimated 4000 begin practice each year. *Architectural Technology* Winter 1985 p. 44.

2 Sweet, J. *Legal Aspects of Architecture and Engineering* 2nd Edition (West Publishing 1985) p. 217.

3 Walker, N., Walter, E., Rohdenburg, T. *Legal Pitfalls in Architecture, Engineering and Building Construction* 2nd Edition (McGraw-Hill 1979).

**Specifications** (continued from page 53)

the existence and availability of the product, the "sale" to a specifier will most likely be made on design and technical factors, and here technical data is paramount. "SpecData" sheets, a popular form of technical information presentation, were developed for this purpose by the Construction Specifications Institute, which distributes them routinely to its members as they are issued and updated. Others get them from manufacturers and distributors who want the product's virtues known. The advantage of such sheets for the specifier is that they organize in a consistent format a lot of the essential information needed to do product selection properly.

But beyond technical information, there are other factors that affect product selection as well. In choosing products, the specifier also looks for evidence that the manufacturer will support the product in some basic ways if it is eventually specified.

- **Sales Support.** Who can the specifier call to look at the project, to see that the product is properly detailed, to advise about potential problems, to keep the office informed about new developments, to ask about alternative versions, options, and uses? Who will provide samples? The manufacturer's sales representative is the person who fills these needs, confirming in each case the "rightness" of the product and its choice.

- **Field Support.** After the product is specified and purchased for the project, the manufacturer's work is not yet done. Things can and do go wrong on the job and help is often needed to advise the architect or the contractor, to straighten out conflicts and confusion, to expedite production or delivery, and sometimes even to show how the

(continued on page 63)

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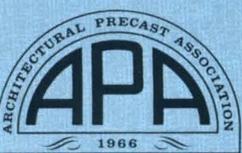
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**Specifications** (continued from page 60)  
product should be installed in the building. Visiting the construction site when the product is going in works for the manufacturer in two ways: It increases the specifier's confidence in the manufacturer, and it also provides feedback to both manufacturer and specifier about adverse job conditions to be avoided next time.

• **Guarantees.** The ultimate support the manufacturer provides is in the type and length of guarantee offered and the willingness to stand behind the product in use. The perfect product wisely selected and flawlessly installed doesn't need much guarantee. But in the imperfect world that we and construction projects inhabit, things go wrong. The fact that product improvements are made at all implies that it's a learning and an adaptive process. In this flux of events, the manufacturer needs to stand firm in order to stand out. If it doesn't work, it should be fixed or replaced without additional cost to the owner. If it was made for that purpose and it was properly installed, there's not much room for equivocation. Specifiers and owners know this and so do responsible manufacturers. The quality of the product is important but so is the quality of the manufacturer's acceptance of responsibility; continued confidence and continuing specification of the product depend on it.

• **Cost and Time.** Last, the specifier is looking for the right price range (not necessarily the cheapest) and reasonable delivery time. Sales representatives must know cost, of both labor and materials, as well as the costs of competing products and must be honest in reporting these to the specifier. A few unpleasant surprises, often to the specifier's embarrassment, will quickly cool enthusiasm even for the best product. And if it takes something like 14 weeks to get the product on the site after it is ordered, the specifier needs to know that up front before specifying it. Schedules can be arranged to accommodate the realities of production, but that will happen only if the contractor is alerted to the need.

Once the choice is made, product information takes another form: detailed specifications to be included in the project manual. The specifier is the person who prepares them, but the manufacturer can make the job harder or easier. The way to make it harder is to ignore all the things that have just been said:

make product information scarce or inadequate; don't tell what it is made of or how to use it; don't mention tests it passes or what colors are available.

The way to make it easier is to provide a draft specification. This should be written the way the specifier writes, follow the three-part section format used today, and recognize that sometimes performance must be described and that other times just a name and model number will do. A professional specifier

should be called in to help prepare a CSI-style "ManuSpec" that can be handed out to other specifiers, or an adequate specification should be included in the manufacturer's product literature or catalog. Manufacturers who make specifying a product easier make that product more likely to be specified.

Specifying is a central activity in design and construction. Conscientious specifiers have the best interests of the project as their top goal. Selecting products

is one of their most important responsibilities and they generally take it very seriously. Manufacturers can be of enormous help in the process, and specifiers depend on them, recognize the ones that provide high quality products, and show a special enthusiasm for those who support their products with the kinds of service just described.

**Walter Rosenfeld**

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

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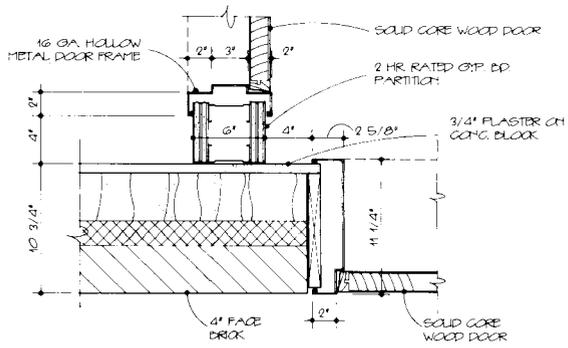
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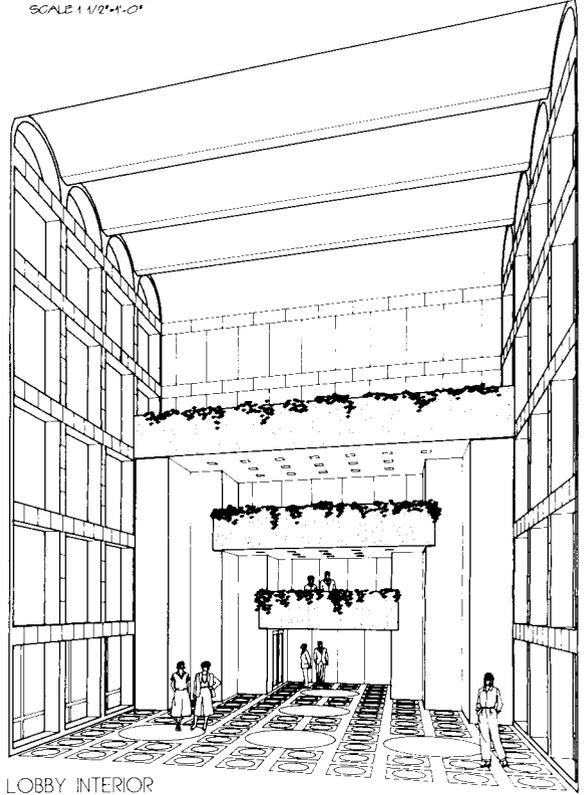
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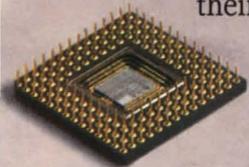
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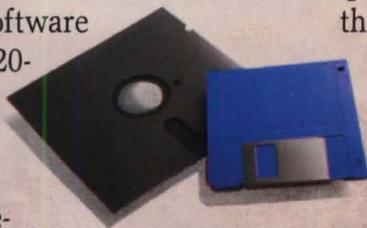
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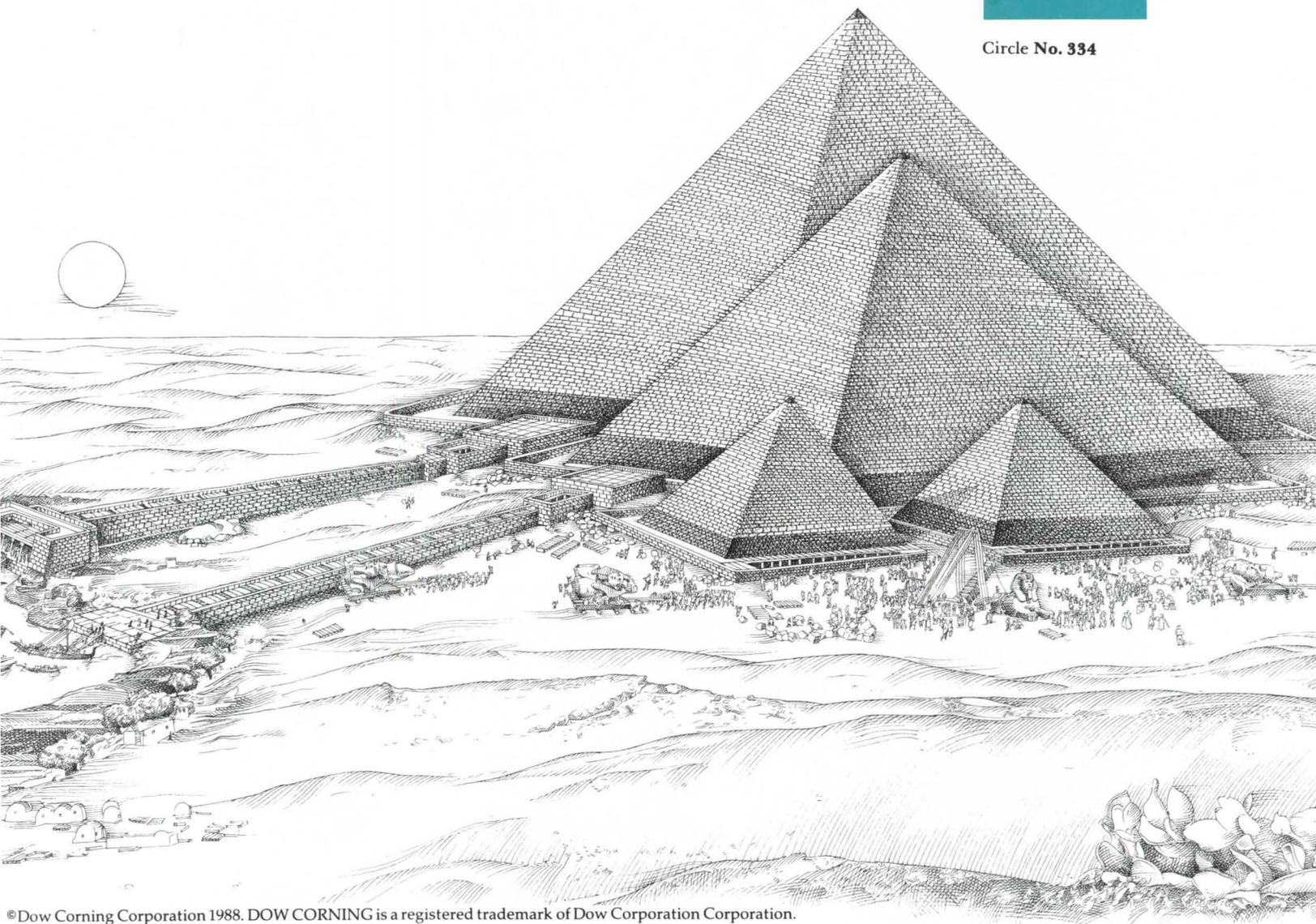
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**Hammond Beeby & Babka's  
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proves that modernity and  
Classicism need not be  
mutually exclusive.**



HAMMOND BEEBY & BABKA's addition to the Art Institute of Chicago, the Daniel F. and Ada L. Rice Building, offers a highly selective—and highly pragmatic—interpretation of Classical museum architecture. Their design incorporates some of the most memorable aspects of traditional gallery design—and of the existing Art Institute—within the framework of modern building methods and museum practice.

It is a big addition: over 66,000 square feet of galleries alone, bringing the museum's total exhibition space to nearly 223,000 square feet. And while almost two thirds of it supplies badly needed space for showing the Art Institute's collection of American art and European decorative arts, the other third is devoted to a new breed of museum animal—the special exhibition gallery, home of the blockbuster show. This gallery, with its continually changing exhibition design requirements, needed an architectural setting quite different from those housing the permanent collections.

Add to the mix the Art Institute's express wish that the addition defer to Shepley, Rutan & Coolidge's 1893 Beaux-Arts-style main building on Michigan Avenue, and you would have had, in the hands of lesser architects, a blueprint for disaster. But Hammond Beeby & Babka aren't Chicago architects for nothing. Their ability to appreciate history and technology with equal zest allowed them to create a building that is by turns traditional and contemporary—something they have successfully accomplished in projects such as the Conrad Sulzer Regional Library (P/A, Dec. 1985, pp. 51–61).

From the outside, the new wing is almost unpossessing in its austerity. A system of suppressed ornament, in pilasters and architraves, attempts to restore the exterior Classical order, which was lost over the course of successive additions (see architects' studies, p. 76). It only hints at the riches inside—for this is, indeed, an inside building. It is on the "inside" of the museum site, bordering the Illinois Central Railroad tracks that bisect the Art Institute; therefore, it really has no public face, save for its south façade, which is somewhat screened from view lest its exit doors be taken for the wing's entrance.

In fact, its entrance is at its north end, well inside the museum. There, a grand limestone portal restates the new wing's Classical leanings and offers a glimpse into its central architectural feature, a two-story indoor sculpture court.

This coolly elegant court is, conceptually and formally, the focal point of the Rice Building. It is the latest in a series of open and enclosed courts dating back to the museum's earliest buildings, and in fact replaces a court that was demolished to make way for the new wing. The sculpture court is a reference point for the galleries on two of the wing's three floors, with the circulation of the rooms constantly directing the visitor back to it.

Architecturally, the court is the most overtly Classical element in the building's design. At the second (top) floor, ten scagliola Doric columns taper up toward capitals painted a silver-bronze. Between them, a balustrade of Valdres stone (a dolomite limestone) shows the almost perversely contemporary spin that Hammond, Beeby & Babka can put on Classicism: the balusters, which appear in elevation as flat, Doric-column paper dolls, are in fact solid, rectangular blocks that are chamfered at the corners. Square piers, their limestone facing wrapped around the corners to look like solid stone, anchor the court under a laylight that filters the sun into something that adds to the

burnished look of the whole ensemble. Architect Dennis Rupert calls the court an exercise in an "archaic Classicism," and this rather schematized interpretation, while compensating nicely for the disappearance of the craftsmen who once executed more ornate Classical detail, also gives the court a considerable less-is-more power.

On each side of the court are three galleries that display the museum's 20th-Century American painting and sculpture collection. These six rooms, with their skylights, coved ceilings, and enfilade arrangement, sympathize with the Art Institute's original Beaux-Arts galleries (which were beautifully restored last year by Skidmore, Owings & Merrill). And a loggia along the western edge of the second floor affords a view across the tracks to the original museum building and to the Chicago skyline—a thoughtful reminder of the Art Institute's and the city's architectural traditions.

At the southern end of this floor—but a world away architecturally—is Regenstein Hall, the special exhibitions gallery. It is a big, featureless, flexible space with artificial lighting and a sophisticated climate control system. To get to it, you must go through the permanent collection galleries—subliminally admonishing visitors to remember that there's more to a museum than traveling super-shows.

#### **Two modes in harmony**

What is impressive is how well these two seemingly antithetical modes of museum design work together. The architects had at first considered a more Modern, matrix-and-infill design, with a steel-beam courtyard. But two factors worked against that. First, conservation and exhibition considerations mandated that the special exhibition gallery have artificial lighting and a flexible layout. Second, the idea of a steel structure had to be abandoned, for economic reasons, in favor of concrete slab construction. Therefore, as Thomas Beeby explains, the concept of standardized parts gave way to one of highly individualized parts. The special exhibition gallery was made neutral, the 20th-Century galleries got a Beaux-Arts treatment (to accommodate toplighting as well as to achieve contextual harmony), and the courtyard became a Classicized focal point. It is by virtue of a clear and simple plan, and a coherent system of ornament in the circulation areas, that the architects are able to tie these disparate elements into a pleasing whole.

It is no surprise that, next to the second-floor galleries, Regenstein Hall and the ground-floor European decorative arts galleries are less than thrilling. Conservation demands notwithstanding, the deliberate neutrality of these spaces gives them a you-could-be-anywhere anonymity, illustrating Tom Beeby's contention that the Beaux-Arts model is the best one for looking at art.

The Rice Building is elegantly put together, from its ingenious "thermos bottle" design (services are located at the outer edges of the building to create a passive vapor barrier) to its impeccably detailed stainless steel stair railings. The building should wear well in every sense, but that was the Art Institute's intention. "Many modern museums are not about looking at paintings—they are more about architecture," asserts Tom Beeby. The architects' stripped-down Classical vision is, as James Wood notes sardonically, "not about irony. It doesn't have to undermine itself to be contemporary." Nor, on the other hand, does it have to undermine itself to be traditional. *Pilar Viladas* ■

**The limestone entrance façade of the Daniel F. and Ada L. Rice Building inside the Art Institute of Chicago (facing page) frames a view towards the two-story-high central sculpture court. The façade's Classical proportions and ornament establish the new wing's dominant architectural style, which links it to existing buildings at the Art Institute.**

THE DANIEL F. AND ADA L.  
RICE BUILDING



**Rice Building**  
Art Institute of Chicago



The Rice Building (top left) is located on the east side of the Illinois Central Railroad tracks, which split the Art Institute's site. The building incorporates an existing boiler plant, which Hammond Beeby & Babka refurbished, at the south end of its ground and first floors. Its south (Jackson Drive) façade is deliberately subdued, since its doors are used primarily as an exit.

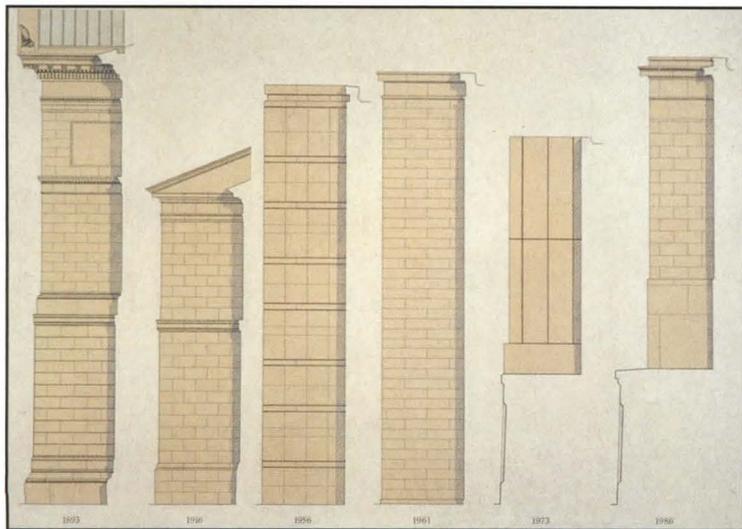
passive vapor barrier (in addition to the barriers in the walls) that protects the exhibition, art storage, and art handling areas.

Regenstein Hall, the special exhibitions gallery (not shown here), is located at the south end of the wing; its adjoining bookstore and audiovisual room can double as gallery spaces. Although it is distinct from the other exhibition spaces in its design neutrality and dependence on artificial light, it is laid out on axis with them. On the ground floor, less than half the floor area is devoted to gallery space; the rest is occupied by service areas.

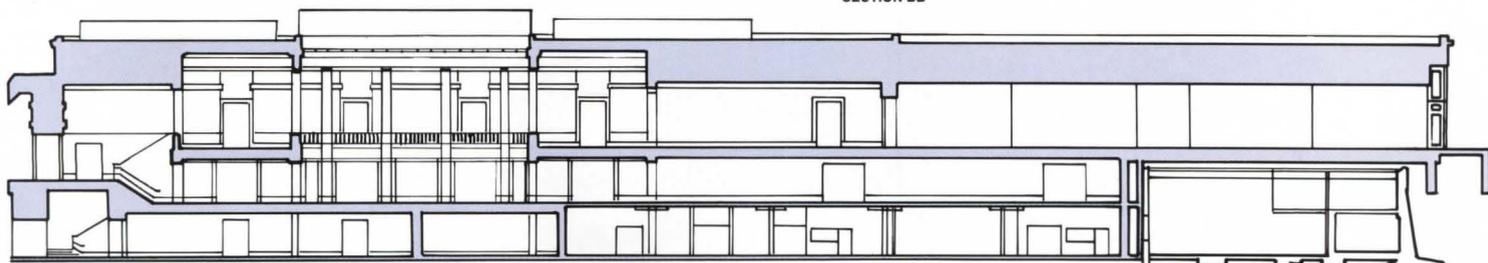
The architects made a study of the exterior "orders" (second left) of the original Art Institute building and its subsequent additions, to help them develop a contemporary version of Classical proportion that would tie the new building to the original.

The building's "thermos bottle" design incorporates services and non-art storage into narrow spaces that run along its outer edges (see plans). These spaces create a

The sculpture court (facing page) and second-floor 20th-Century American art galleries are illuminated by a system of skylights and laylights (see following pages).

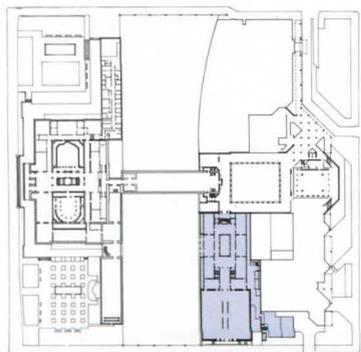


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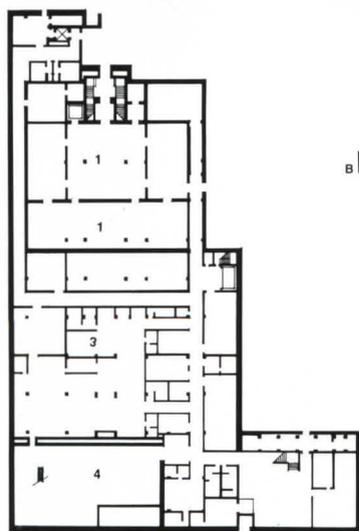


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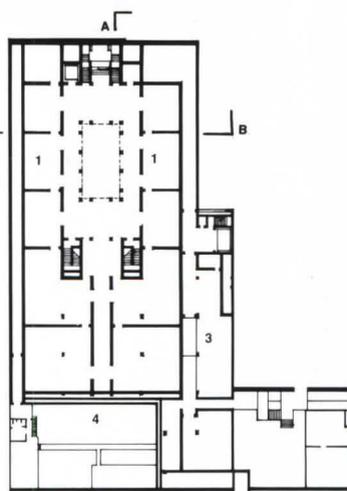
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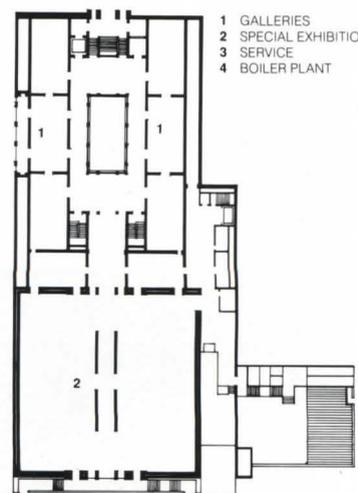
SITE PLAN N ↑ 300/100m



GROUND FLOOR PLAN N ↑ 100/30m



FIRST FLOOR PLAN



SECOND FLOOR PLAN

- 1 GALLERIES
- 2 SPECIAL EXHIBITIONS
- 3 SERVICE
- 4 BOILER PLANT







The symmetrical arrangement of the second-floor, 20th-Century American art galleries (this page) creates axial views across the sculpture court (top). The galleries themselves are based on the same Beaux-Arts model that produced the European painting galleries in the Art Institute's original building of 1891–1893, designed by Shepley, Rutan & Coolidge. Hammond Beeby & Babka found that this type of gallery design (apart from its contextual appropriateness) provided the model for a toplighted gallery, because of its generous proportions and coved ceilings. "Triglyphs" under the laylight and in the baseboards neatly handle air supply and return, respectively.

The daylighting system consists of an aluminum skylight with a "sandwich" of patterned diffusing glass (to minimize shadows from the skylight ribs) and insulating glass with a laminated layer of film to remove UV rays and

prevent heat gain. There are motorized louvers on its underside, except over the sculpture court. The laylights over the galleries are constructed of a steel tube system with a wood glazing grid, which incorporates recessed track for artificial lighting. The laylight glass is another sandwich, with two layers of glass (one textured) at the bottom, a "capillary slab" of plastic tubes to diffuse and direct light, a fiberglass mat, and finally another layer of glass on top. Over the sculpture court, both the bottom layers of glass are textured, each with a different pattern. The diffusing glass layers allowed higher light levels in the galleries without the use of complicated shading mechanisms or tinted glass (which distorts the color of the light).

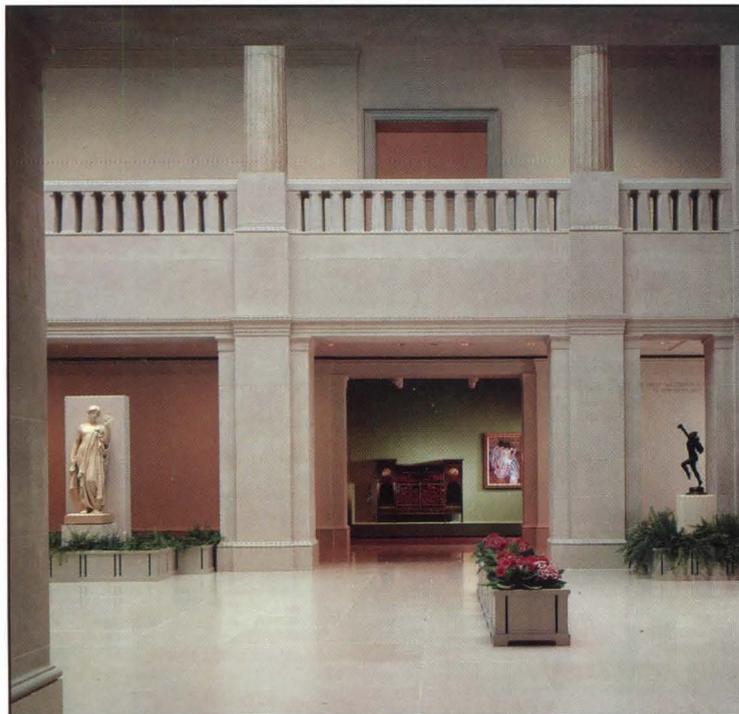
On the west side of the galleries, a loggia (facing page) offers views across the tracks to the earlier museum buildings and the Chicago skyline.





On the first floor, the sculpture court is the focal point for the American arts galleries (top and middle left). Colonnades of the court frame axial views into the galleries. In these galleries, however, a smaller "preview" space just inside each doorway showcases a few of the highlights of the collection, offering a quick look, or enticing the visitor to wander at leisure among the works displayed. These galleries are flexible in plan, and use artificial lighting for conservation reasons, as do the European decorative arts galleries on the ground floor (bottom left).

The visitor is lured down the stairs to the ground floor by display cases (facing page) at the bottom of the stairs. The stainless steel handrails reinforce the cool, monochromatic color scheme of the interior, which is based on a series of grays. No whites are used anywhere in the building, except for the light boxes above the skylights.



**Project:** The Daniel F. and Ada L. Rice Building, The Art Institute of Chicago.

**Architect:** Hammond Beeby & Babka, Inc., Chicago (Dennis E. Rupert, principal in charge; Thomas H. Beeby, director of design; Bernard F. Babka, director of technical, production, and office practice).

**Client:** The Art Institute of Chicago.  
**Site:** a 52,000-sq-ft site within the existing museum complex, bordered on the east by the School of the Art Institute, on the west by the Illinois Central Railroad tracks, on the north by the McKinlock Court Galleries, and on the south by Jackson Blvd. Two existing gallery buildings were demolished; an existing central mechanical plant was upgraded and incorporated into the building.

**Program:** 128,000-sq-ft addition, including 55,845 sq ft of permanent and temporary exhibition space; a 10,620-sq-ft sculpture court and mezzanine; 24,000 sq ft of art storage and support areas; and the remainder to mechanical, circulation, and miscellaneous areas.

**Structural system:** concrete caissons; flat slab concrete structure with steel roof structure in special exhibition hall.

**Major materials:** Indiana limestone; Valders stone; teak; oak; terrazzo; plaster; gypsum board (see *Building Materials*, p. 158).

**Mechanical system:** existing central plant upgraded, with central boiler plant steam system, and central cooling towers and chilled-water system; VAV system with steam-injection humidification.

**Consultants:** Cohen Barreto Marchertas Inc., structural; Cosentini Associates, mechanical; Claude R. Engle Lighting, lighting; Shiner & Associates, acoustical; Jay Silverston & Associates, energy conservation and environmental; George Sexton, American Art installation design; Clifford LaFontaine, European and Decorative Art installation design.

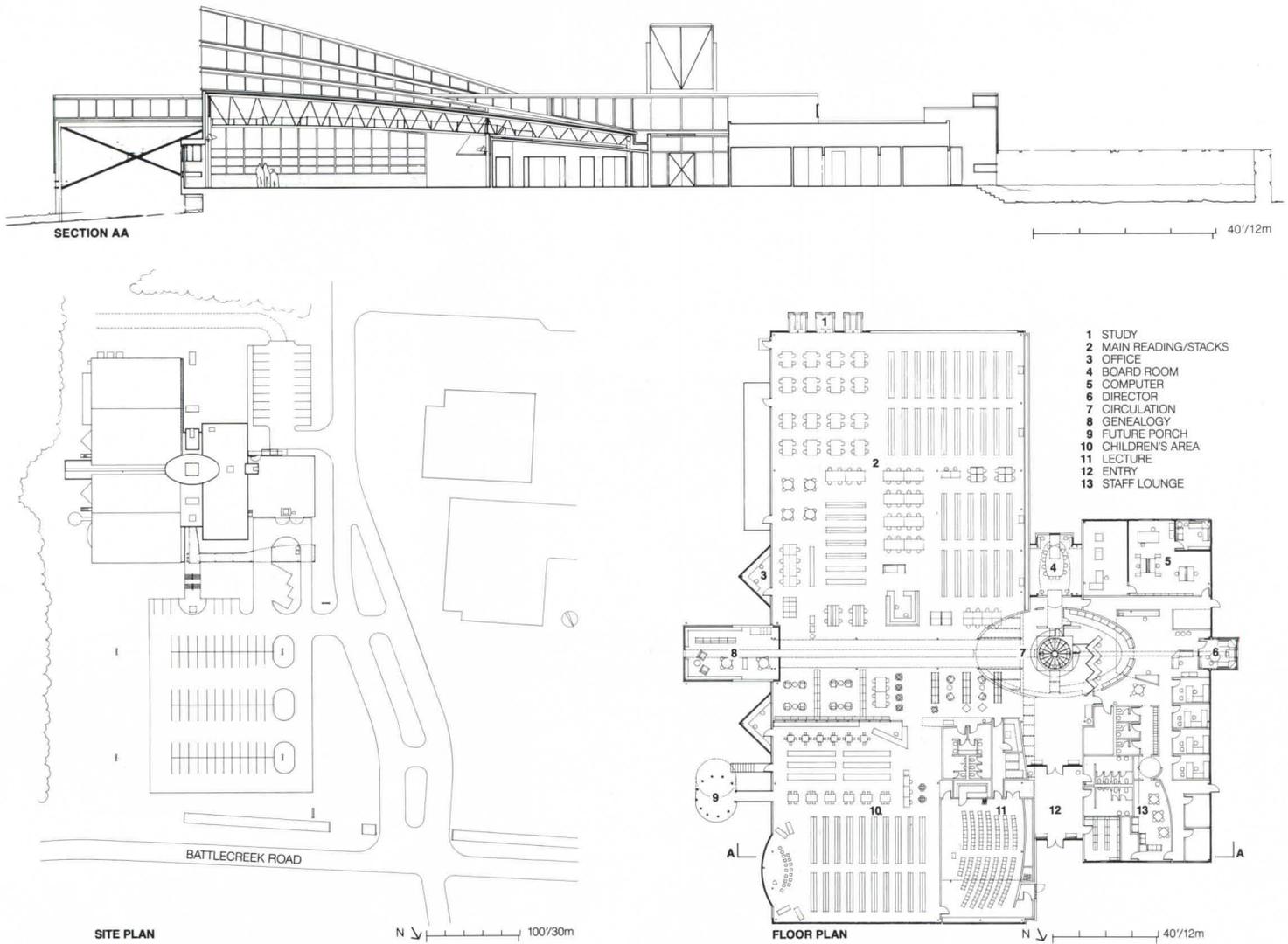
**Construction management:** Schal Associates.

**Cost:** \$23 million.

**Photos:** Jon Miller, Hedrich-Blessing.



# Clayton County Library



get built, and informal enough to welcome local citizens—and maybe even threaten some.

Located on Battlecreek Road, a main connector between the two highway strips, the building site is hardly isolated, but it does have its bucolic aspects. The flood plain of Jester's Creek to the east guarantees the building a lush wooded view in that direction; other new county facilities are being completed south and west of the new library. Future expansion of the building is designed to simply extend the eastern elements, the reading spaces, in a north-south direction.

The building is playful and full of wit, yet according to library director Carol Stewart, it works almost to perfection. Its materials are straightforward, too direct for some of its critics, and its systems are obvious as well. It is undoubtedly the major exterior material, the skin, that provoked the first and strongest reaction. The corrugated steel, with its applied pattern, is unconventional by most standards.

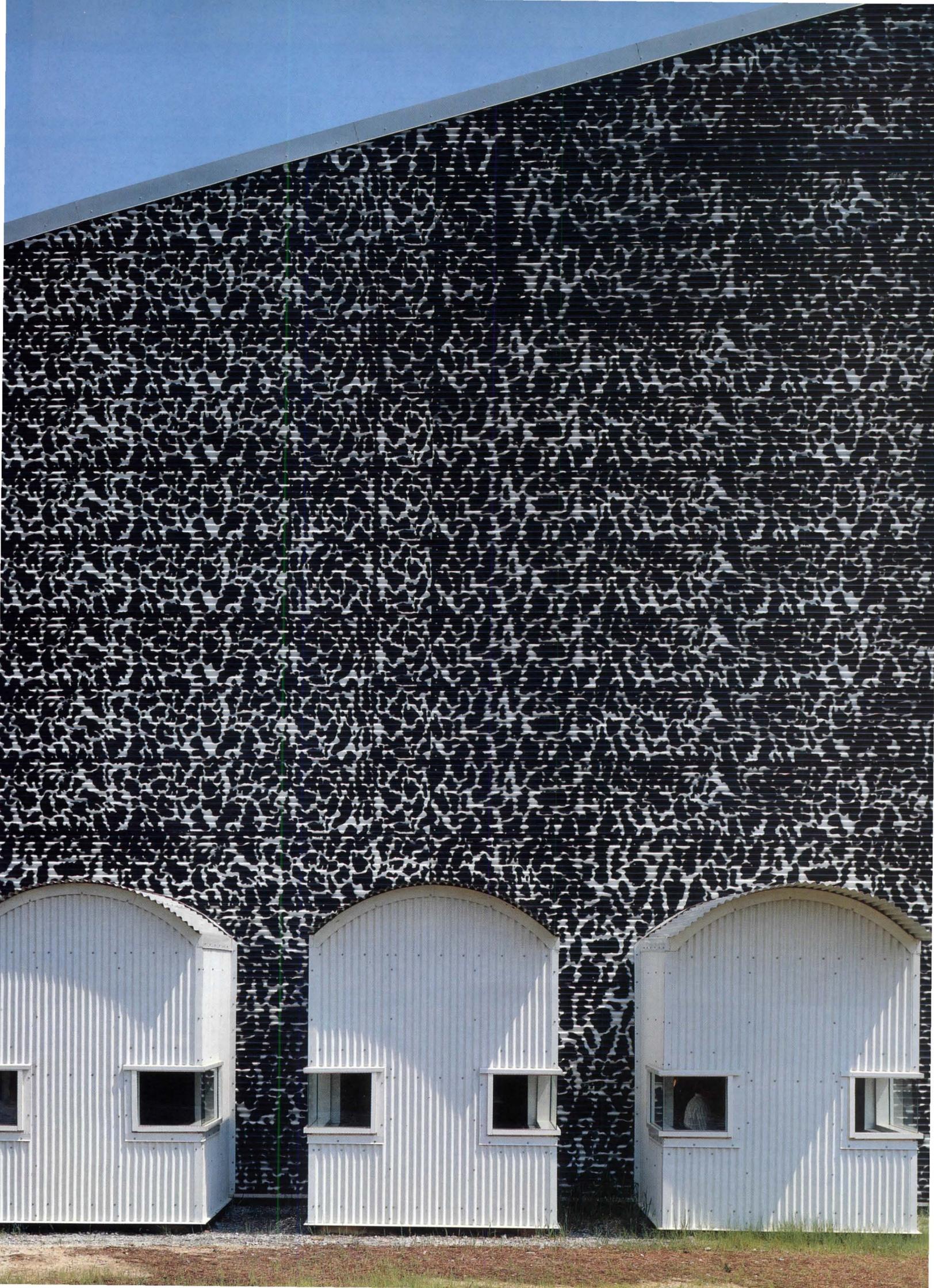
It was the architects' intent to recall in the panels the familiar pattern found on school composition-book covers and on cardboard library file boxes; each, like the library, is a keeper of information. A photograph of just such a file box pattern was projected onto a fiberglass sheet, and the pattern was then cut out of the sheet, forming a stencil the same size as the steel panel. Already base-coated in white fluoropolymer paint, the panels were then stenciled with dark gray paint of the same composition, assuring the finished product of long life. Director Stewart keeps an example file box on the circulation desk to enable her to explain the concept to puzzled patrons.

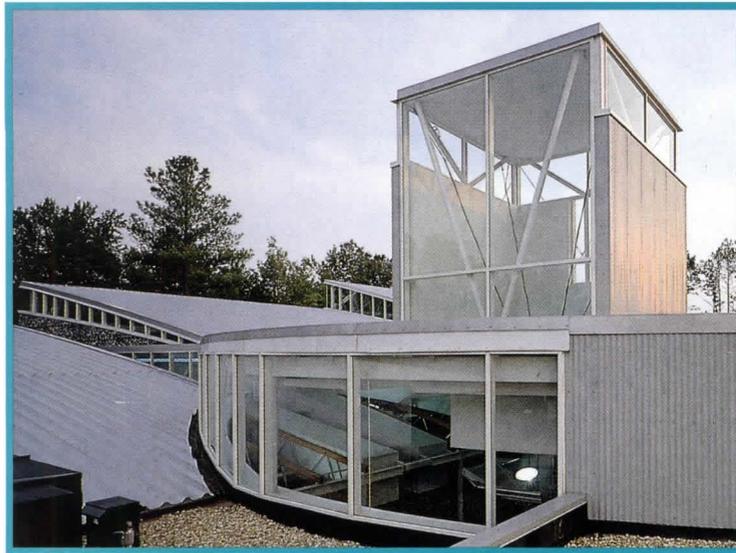
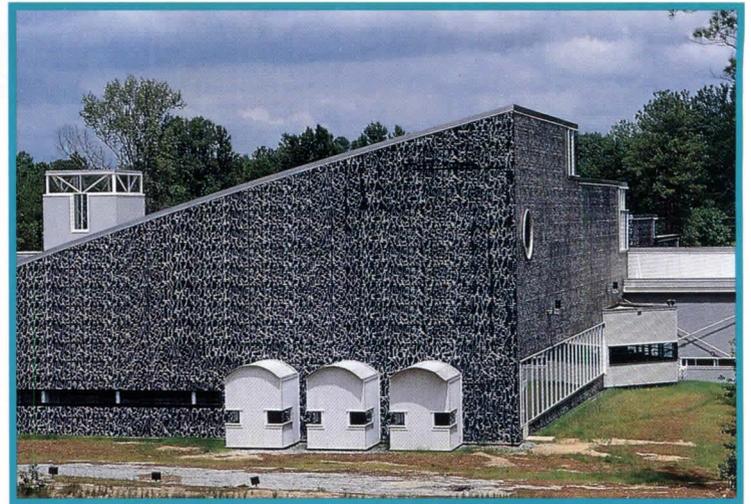
Once past any apprehensions about the skin, most library users seem to regard the interior spaces of the new facility very highly. Organized around two strong axes, the basic plan comprises two main elements, administration and the reading areas. The entry axis passes through the circulation desk and ends in the Board Room. The east-west axis passes through the circulation desk as well, and marks the division between the children's reading area and the adult. Accentuated by a pair of bold dropped bands incorporating clerestory and strip lighting and air grilles, the axis terminates in the genealogy area at the east end, and the director's office at the west. At the crossing of the axes, a lanternlike clerestory/monitor floods the circulation desk below with light. Under the lantern is a chandelier composed of a mesh television satellite dish and the stadium lighting fixtures typical of the library's lighting equipment.

In cross section, the gently bowed roof forms of the main reading spaces step upward in four segments from north to south. Under the corrugated metal roof, structure is allowed to occur wherever economy and stability require, including occasional subsystems for special conditions and lateral bracing. The wood and galvanized steel truss joists interact with the mechanical and HVAC elements and, with the stadium lighting fixtures, generate an interior expression that is more or less industrial. It is not a harsh composition, yet it is a very straightforward one.

Both the adult and the children's reading areas have large expanses of glazing facing into the wooded area along the creek. This east wall bows out in the children's area to form a story-telling

**Of the two main axes in plan, the east/west is the most highly articulated, with one end at the protruding genealogy room, and the other at the smaller element signaling the director's office. The north/south axis crosses the other at the circulation desk, behind which a screen acts as a mild baffle for the board room beyond. Among the other elements extending beyond the asymmetrical H-shape, the three study cubicles (facing page) make an almost comical composition with and on the south wall of the main reading room. They are left white, the second pattern stage having been omitted from the cladding. Repeating similar window heights found in other parts of the building, the eye-level-when-seated glazing shows both concern for the user's comfort and the unmistakable whimsy of viewing from one of the trainlike forms to the others. Each has its own conditioned air supply.**





niche, and two triangular offices also jut out on either side of the genealogy room. Adjacent to the children's area is the lecture area, which includes a puppet stage and a small serving kitchen; the room is divisible to form a lecture hall and a smaller meeting room. This facility can be used by community groups independent of the library's hours.

In addition to one of the protruding offices in the adult reading area, there are three carrel-like accretions at the south end, for individual or small group study. The cozy, arched-roofed cubicles have proven very popular with the young, who like the trainlike feeling of looking or waving through the eye-level glazing between one and the other. Conditioned air supply for these spaces is brought down in a single tube from the ceiling of the main room, branching to separate supply grilles within the cubicles. Other irregularities in the basic H shape of the plan are the genealogy area, the director's office, and a projecting bay in the board room.

One of the specialties in the Jonesboro facility is the extensive genealogy collection, with astoundingly detailed records of towns and counties from many areas of the south. The special area in which the collection is housed features both a clerestory and floor level horizontal glazing, the latter pro-

ducing the effect of floating shelving above. The director's office has bands of glass and a window into the library at eye level when seated, allowing her to see out of her office in all directions from her desk. High glazing also ends at the top in a monitor. Another of the things of which the Clayton County Library system is most proud is its very advanced computer capability, and its heart is located just south of the director's office here.

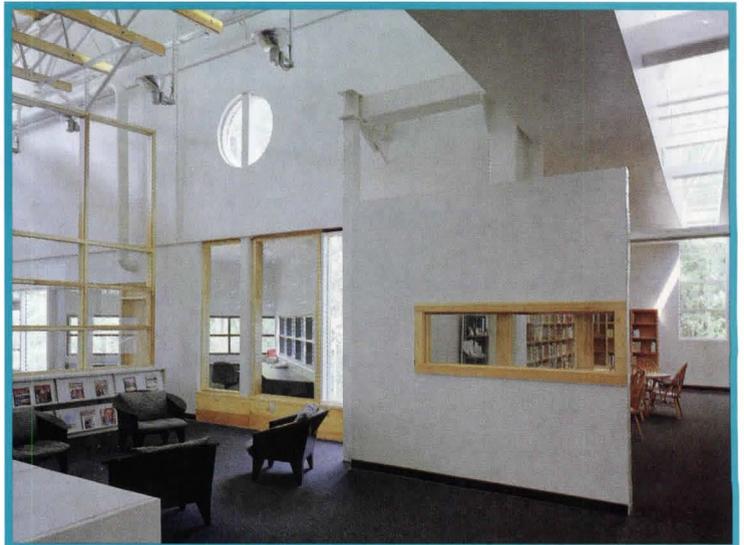
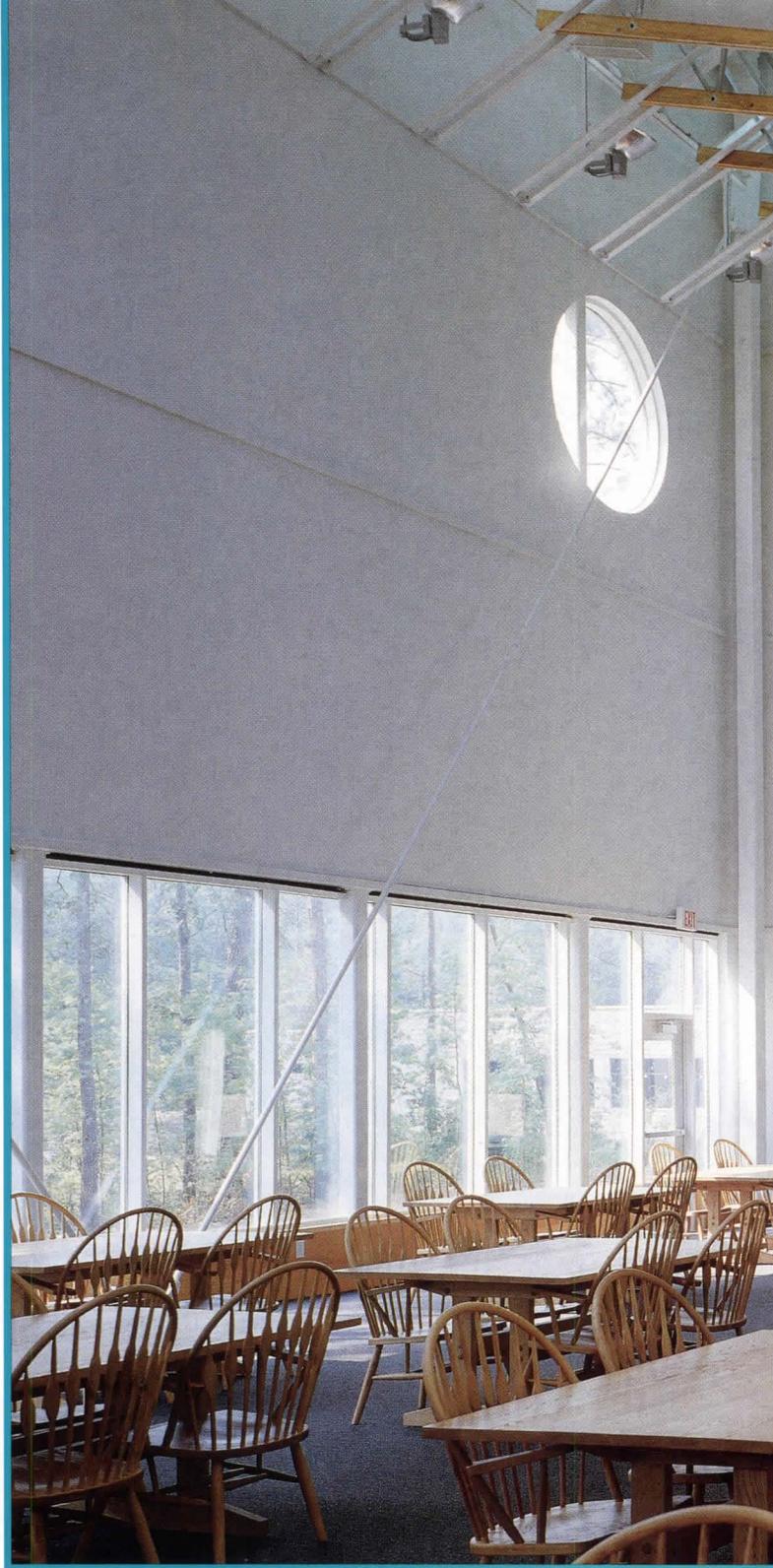
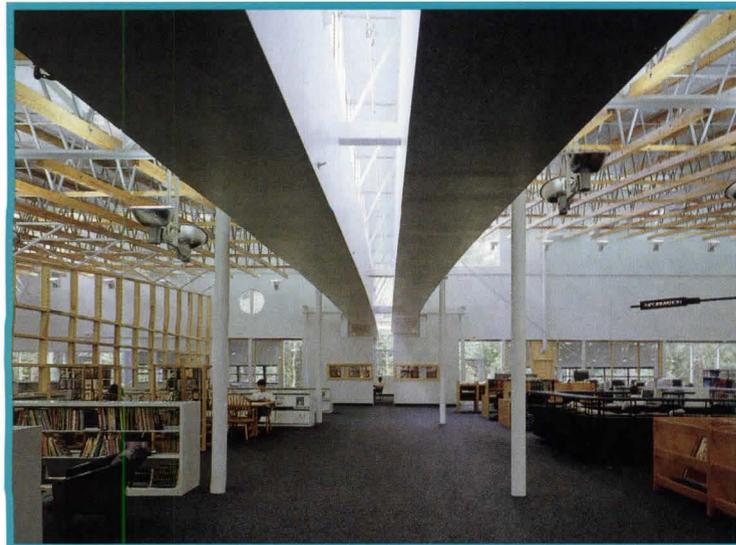
The library staff credits the semicircular circulation desk with handling crowded checkout conditions and security beautifully, and it is clear that the architects have seriously thought out a whole host of potential problems here. From the various special heights of the vision glass to safety-conscious design of elements that might cause injury to young people, it is apparent that the building design is under the complete control of its designers. It is in some ways a tough building, in many ways a lyrically witty one, and in every way a skillfully detailed statement. This is not a building that fidgets uncomfortably about its identity, nor does it hesitate to welcome its public. To quote one staff member's teenage child, the library in Jonesboro "is awesome." *Jim Murphy* ■

Along the building's east side (top, left), the genealogy room and the triangular wedge of an office reach out toward wooded areas of the creek flood plain. The elegant light monitor atop the genealogy room leads into a vertical strip window, and just above floor level, a horizontal glazing band partially wraps around three sides.

The southeast and the northeast corners (upper right and lower right) incorporate most of the orthogonal, triangular, or semicircular protrusions. In addition to the genealogy room and study areas, a bowed window marks a storytelling niche in the children's area. Highlighting the crossing of the building's axes, the most prominent of several monitors (lower left) sheds light on circulation functions below.

The articulated director's office (facing page, left) is also lighted by monitor and a vertical strip window series and features more of the eye-level windows. A corrugated translucent fiberglass canopy shades the main staff entry.







The main reading spaces are bright and high, rising to the highest point at the south end (above). The children's reading area (facing page, center) is separated from the adult area by a simple glass screen wall. An even simpler screen defines the area behind the circulation desk (facing page, top) where the director and staff work. The chandelier above the desk is made of a satellite dish and stadium lighting. The major axis, with one end in the genealogy room, is marked by sweeping dropped forms (facing page, bottom) that visually divide the areas.

**Project:** Headquarters Library of the Clayton County Library System, Jonesboro, Georgia.

**Architects:** Scogin Elam & Bray Architects (originally commissioned as Parker & Scogin Architects), Atlanta, Georgia (Merrill Elam, with Mack Scogin and Lloyd Bray, design principals; Lloyd Bray, project architect; Tom Crosby, Rick Sellers, Dick Spangler, Isabelle Millet, and David Murphree, project team).

**Client:** Clayton County Library System Board of Trustees.

**Site:** 3.75 acres of a 25-acre county-owned plot.

**Program:** headquarters and branch library facility of 32,500 square feet to house children's services, circulation, general and specialized collections and services including general-

ogy, meeting facilities, administrative functions, technical services, and other support functions.

**Structural system:** steel structure in the administrative wing and steel columns throughout rest on spread concrete footings; curved wood and galvanized steel trusses support roof deck in main spaces.

**Major materials:** exterior, corrugated steel siding with fluoropolymer coating, corrugated translucent fiberglass canopies; interior, painted gypsum board on steel studs with fiberglass insulation, stadium lighting, wood and steel truss joists, carpet and carpet tiles, television satellite dish and stadium lighting for chandelier (see *Building Materials*, p. 158).

**Mechanical system:** gas-fired roof-

top or ground-mounted self-contained air-handling units with economizers.

**Consultants:** GPWD Consulting Engineers, structural and mechanical; Eberly and Associates, civil; Williamson and Associates, specifications; Costing Services Group, estimating; Ramon Luminance Design, lighting; Doug Allen, landscape; Scogin Elam & Bray with JoAnne DeMilner, interiors consultant.

**General contractor:** M.G. Engineering and Construction.

**Costs:** \$2.24 million/\$68 per square foot (construction only).

**Photos:** Timothy Hursley, The Arkansas Office.

## New Civic Center

**A new branch library has replaced the shopping center next door as Linda Vista's public forum.**

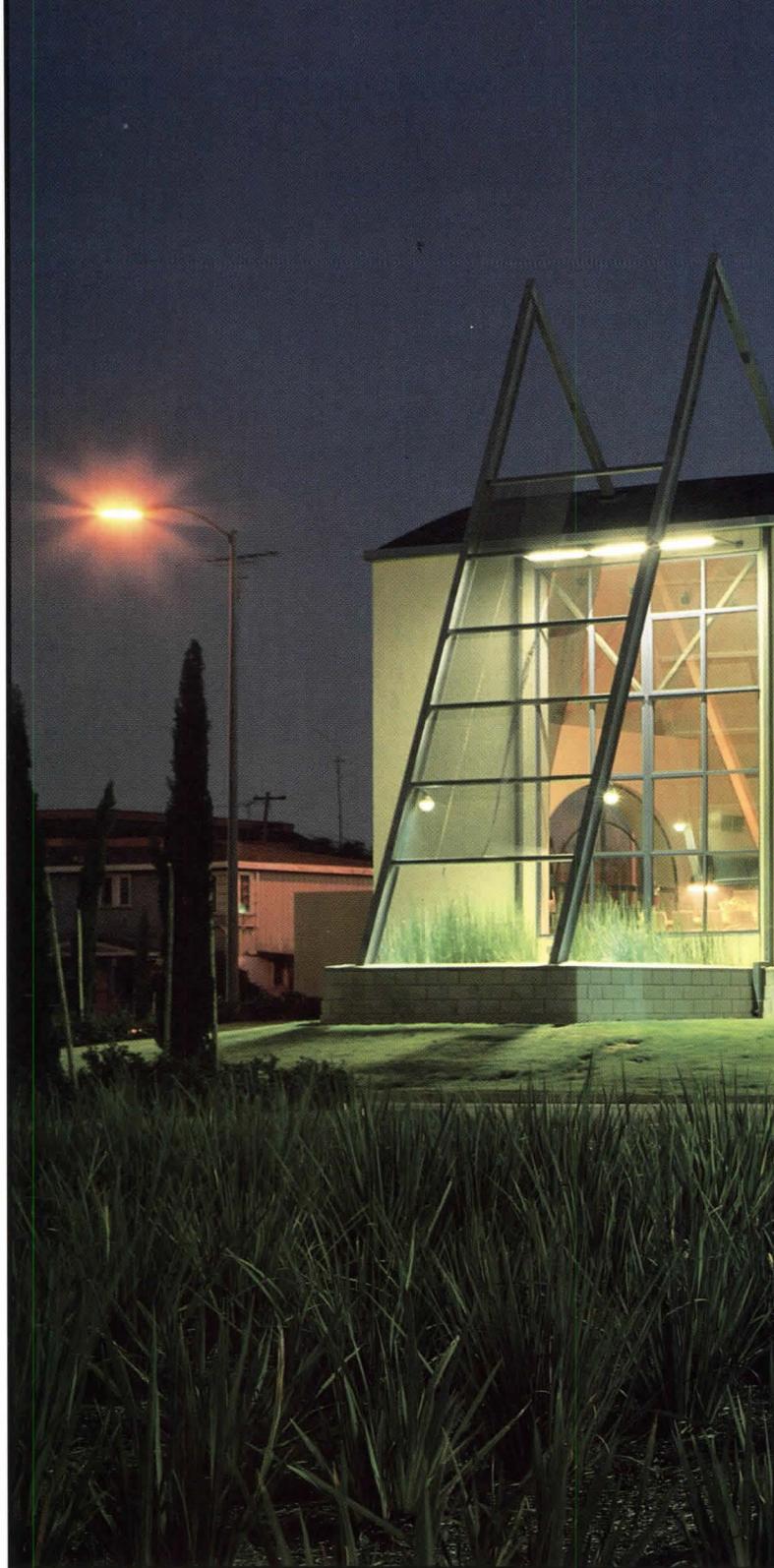
SHOPPING centers, long the principal focus of public life for bedroom communities built in the post-World War II era, are giving way to new, but more traditional public buildings. As they reach the half-century mark, many of these suburbs are building new civic centers to bolster pride in the community. The new library in the San Diego suburb of Linda Vista is an especially good example of this phenomenon, for it stands at the corner of a 1960s shopping center, which it has supplanted as civic anchor.

Linda Vista was built during World War II by the federal government to house airplane factory workers. Over time, private development consumed superblock after superblock without creating an identifiable center for this bedroom suburb. The federally built, temporary housing aged, and in the 1970s, the city made it available to Asians displaced by the war in Vietnam. As a result, Linda Vista acquired a large, non-English-speaking population to assimilate into its older Caucasian community.

About ten years ago, community activists began planning a new library to be built with Community Development Block Grant funds. A free site was available in a redevelopment area assembled decades earlier for the shopping center. About five years ago, architect Rob Wellington Quigley won the library commission with Land Studio, landscape architects who had previously assisted in preparing an economic development plan for Linda Vista.

Happily, Quigley's ideas for making the library a community symbol won the enthusiastic support of San Diego City Librarian William Sannwald, who made the bureaucratic approval process easier and more enjoyable. When Quigley added two landscaped, walled courts to the program, Councilman Ed Struiksma, a strong supporter of the library, secured more city funds to build them as designed, except for an omitted fountain in the south courtyard.

In its siting and architectural design, the library succeeds in the difficult role of being both cordial and commanding. By running



the main axis diagonally through a rotunda, the architects created two major entrances for the building, one from the shopping center and one from the street corner at the T-shaped intersection of two main arterials. The raised rotunda centralizes the massing and marks the entrance from the intersection. Adjacent property owners—one was the Linda Vista Presbyterian Church, also angled toward its street corner—were persuaded to grant the city easements to plant cypress trees on their property so that, in time, a civic space would encompass the otherwise featureless intersection. A line of cypresses exerts a directional pull toward the library from the vast parking lots of the shopping center. From that vantage point, the architects say, the library suggests the familiar Southern California imagery of the drive-in movie theater, where lines of vision converge toward a center.

Since opening his office in San Diego about ten years ago, Quigley has tried to reconcile the regional predilection for a Mediterranean masonry building tradition with the economic necessity for wooden construction. Commenting on the library, which is his first public commission, Quigley says, "This is our best effort to date at finding



From its parking lot (above), the library presents a mixed medley of forms and allusions that invite exploration. Beds of grasslike lilies are set to form grids that recall the rice fields of Southeast Asia, former home to many new Linda Vista residents. Cypress trees add a Mediterranean note that complements the sculptural masonry forms of the building. From the street intersection (left), the raised roof monitor signals the library entrance. A trellis indicates a human scale and shades the entrance.



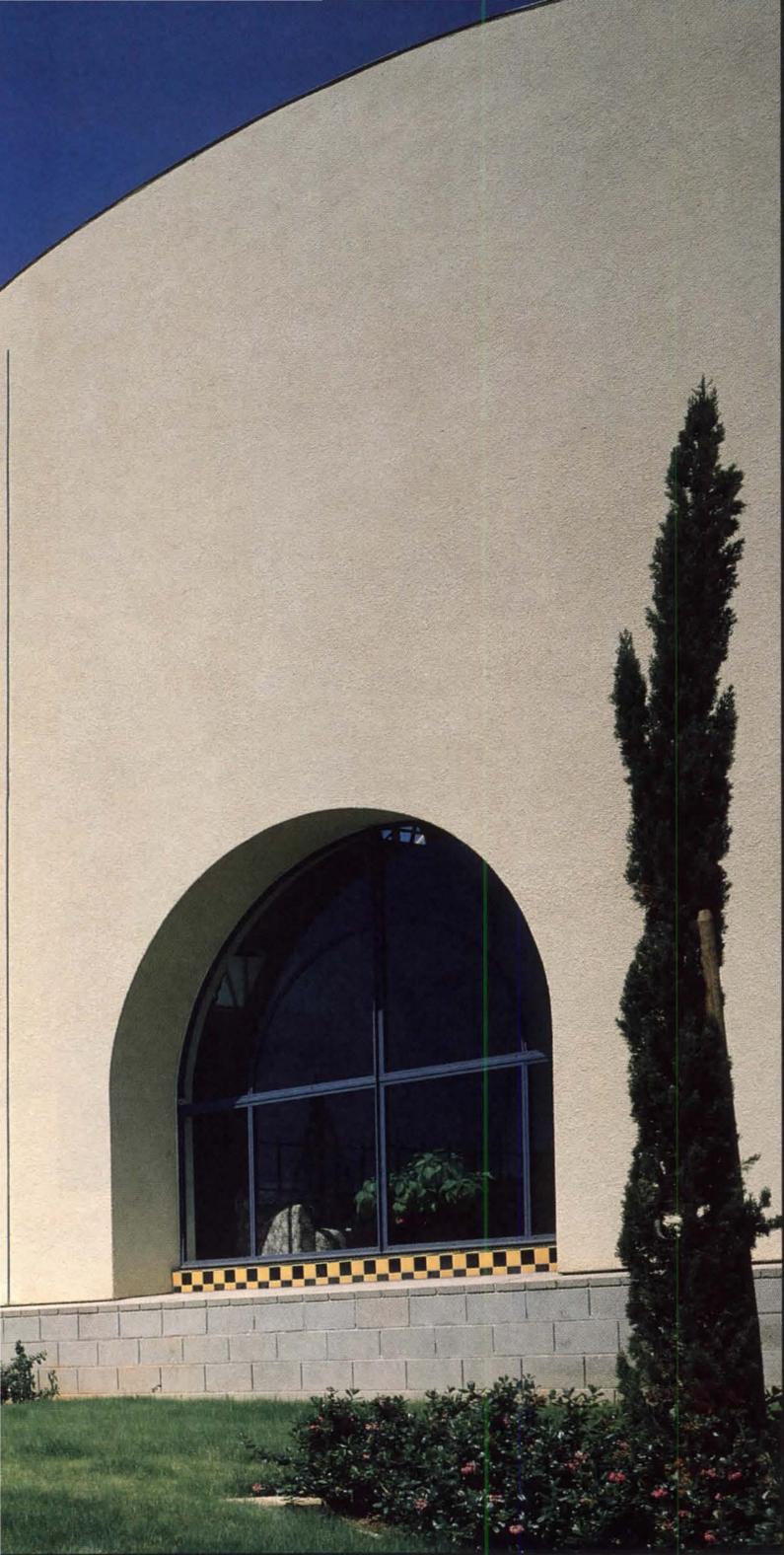
a legitimate way to express the contradiction of a massive form built with sticks.”

If the library’s monumental, earth-colored forms recall a masonry tradition, the interior is an ode to lightweight wooden construction. Structural members have been pared to a minimum, and columns have been turned into outsized parasols that appear to lift rather than support the roof. Wooden struts like those that crisscross the rotunda line the ramp that leads like a processional way from it to the adult reading room. Two members pierce the roof of the reading room and, bearing a screen to filter light, land on the corners of a concrete-block planter outside the room’s tall window. This Constructivist gesture plays nicely against the sculptural, masonry form of the reading room.

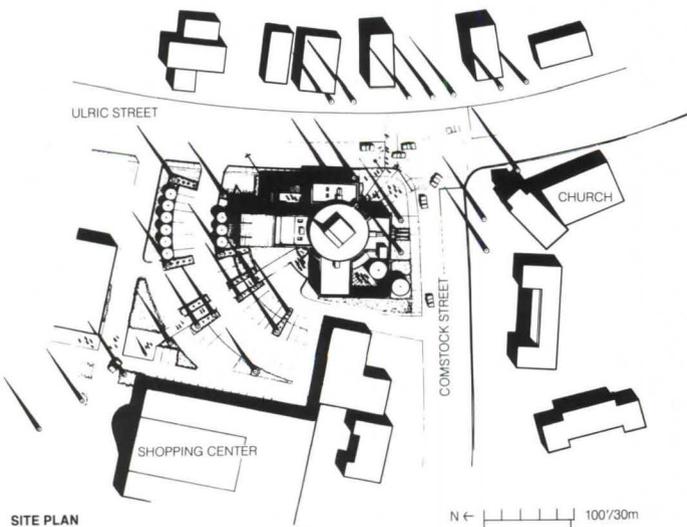
While the building makes reference to San Diego’s Hispanic past, the landscaping evokes both the exotic lands where paper and writing originated and the different cultures represented in the library’s users. Ron Wigginton of Land Studio conceived the Papyrus Court as a symbolic representation of the Egyptian landscape, with wire obelisks and a red sandstone river that runs from the base of a

concrete bench inside the library to the court outside. Rows of dietes, a grasslike lily, are planted in beds in the library’s parking lot to suggest, from a distance, the rice fields that were a familiar part of the Asian newcomers’ former landscape.

No longer will alert motorists cruise up the hill and right on through the intersection of Ulric and Comstock Streets without finding any reason to stop and alight. Nor will Linda Vista’s large foreign population find their needs unserved in a collection that will have audio cassettes and ten percent of its books in languages other than English. The Linda Vista Library affirms that these institutions do indeed have a contemporary role in the community. They broadcast civilization through its accumulated written record. When they are well served by architectural design, their grasp can even equal their reach. *Sally Woodbridge* ■



Joan Hix Van der Schult



Firmly anchored to its site by the rotunda, the library branches out to claim the perimeters of its corner lot (top). As shown in the site plan (left), users of the adjacent shopping center are drawn to the library by a line of cypress trees. The radial lines of the library parking lot determined the organization of walkways and lighting, all of which converge on the entrance. At the intersection, trees serve to define a civic space. In the Papyrus Court, which can be seen but not reached from the outside of the library (facing page), the

designers have recalled the distant origins of paper and thus of libraries in an Egyptoid landscape with a screen-shaded bed of papyrus and wiry obelisks in a red desertlike floor of painted concrete crossed by a red sandstone river (above). A second walled court (not shown) provides additional outdoor reading areas as well as space for socializing outside the community auditorium and for overflow activities from the children's area.

## P/A Inquiry

# Remaking Malls

Older malls, now widely being rehabilitated, are acquiring a new public role, but they have yet to fully play the part.

MANY are the ways to wring dollars from the hands of consumers, but few are as effective as shopping malls. While they may lure us with their public space—with the trappings of traditional cities such as fountains, benches, and cafés—malls remain private developments that must make a profit. And, while they may beckon with public events—with concerts, exhibits, and shows—malls remain primarily places of commerce, where almost every design decision is aimed at encouraging people to part with their money.

We commonly think of the private sector as somehow encompassed by or enclosed within the public realm. But malls reverse that order. They are privately owned and operated structures that physically enclose public space and public activities, providing an object lesson in what has become a major political issue: the privatization of public life. Can the public good be achieved through private means? Should community activities be at the behest of commercial interests? Such questions become particularly urgent at a time when large numbers of malls are being rehabilitated to achieve a greater public role and community presence.

### First Generation Malls

The first shopping malls, built in the 1950s and 1960s, did not play such a part; while they had publicly accessible space, various factors limited their public role. For one, communities simply placed less demand upon malls. Many of the early centers were built in newly developed suburbs, which tended not to have many organized events or well-established institutions. Even today “the demand for public events,” says Leigh Speakman of Cadillac Fairview, “is not as great in malls located in newer suburbs as it is in more urban areas.”

The huge tracts of land on which the first suburban malls were built physically isolated those facilities. And their largely closed exteriors tended to reinforce their private character. “It used to be that you couldn’t even find the entrances to some of those malls,” says Keith Kovar of the International Design Group.

The people developing shopping malls a generation ago also did not have to go out of their way to attract the public, since there were so few other malls to serve as competition. “Developers just wanted to get product up and get a cash flow

going,” notes David Brotman of RTKL. “Design was not very important to most of them, and the malls were typically dark, with poor graphics, bad materials, and uncontrolled storefronts.”

That may have reflected not only a lack of competition, but a different perception of what a shopping center should be. “We now see shopping as a form of entertainment,” observes Speakman, “and the mall as a place in which we are entertained. In the past, emphasis was on the retailers; malls were kept dark to emphasize the storefronts, and the central spaces were monumental and often inflexible, discouraging the staging of events.”

### The Second Generation

Various factors are now driving the widespread rehabilitation of those early malls. “Many of the original leases are terminating,” says Michael Sharp of Melvin Simon & Associates, “offering an opportunity to upgrade and expand malls and to change their tenant mix.” Shifts in the local consumer market, competition from other malls, or simply sagging profits are among the reasons why such changes are made. One rule of thumb is that \$10 to \$12 a square foot of rehabilitation costs can justify a 20 to 25 percent increase in rents.

The investors in malls also have changed, spurring more rehabilitation. Pension funds have become major investors in shopping malls in recent years, working on their own or in concert with developers. Fiscally conservative, the managers of these funds mostly invest in existing malls, which have a proven track record and established tenants, rather than in the construction of new facilities. “Pension funds managers,” says Brotman, “are more interested in a reasonable rate of return than in short-term cash flow, so existing malls are attractive to them.”

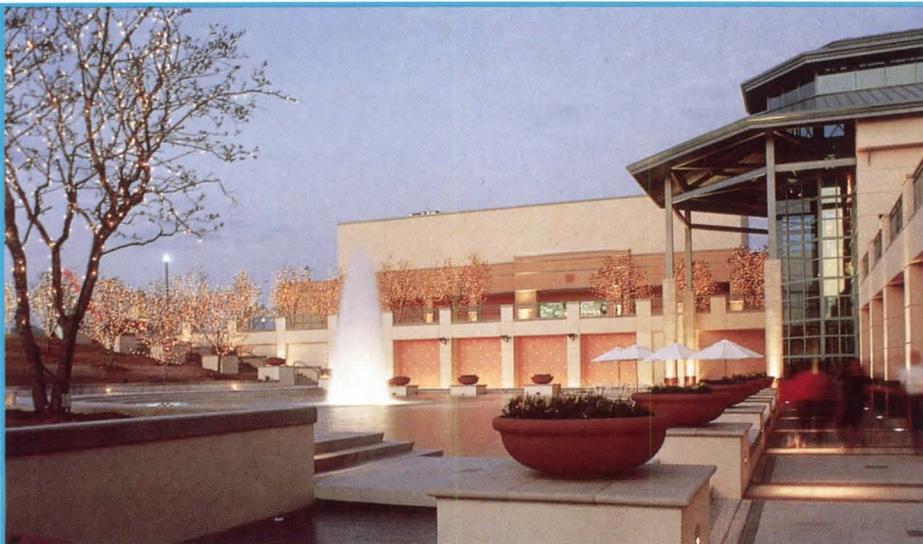
Also, “good sites for new malls are now few and far between,” adds Brotman. In many areas, the large tracts of flat land near population centers have already been developed, and those that remain often are protected in some way; several battles over the placement of malls in wetlands or next to historic sites are now under way. Even where suitable land exists, public opposition to such development has increased because of the added traffic it can bring or because of the effect it can have of draining downtowns of retailers or shoppers.



**Project:** American Tin Canneries, Pacific Grove, Calif. **Architects:** Dinapoli Berger Architects, San Francisco. Specialty malls are a fast-growing segment of the retail business. Running through three historic industrial buildings that previously housed shops, this specialty mall—a factory outlet center—uses materials and details that are appropriate to the setting and the type of stores. The two-story, central mall (left) is relatively narrow to maximize rentable space, so the architects placed a walkway along one edge of the upper floor, with bridges to stores on the other side. The spare detailing, exposed structure, and tough materials not only reduced the cost and ease maintenance, but are admirably controlled and show a new direction for malls.

**Project:** Chapel Square Mall, New Haven, Conn. **Architects:** Herbert S. Newman Associates, New Haven.

This rehabilitation of a 20-year-old urban mall recalls 19th-Century arcades (right). Skylights were installed in the once nearly solid ceiling to increase the amount of daylight, and steel arches edged with lights were inserted to lower the apparent height of the space. A food court was added on the second floor, overlooking the city's central green. The materials used in the mall reinforce the outdoor character of the enclosed space. A parking garage, a hotel, and an office building have entrances along the mall, allowing this facility not only to look like an urban galleria, but to function like one as well.



**Project:** Crossroads of San Antonio, San Antonio. **Architects:** RTKL, Dallas.

The new main entrance to this 25-year-old mall shows the efforts some architects are making to open malls to the outside (left). The two-story glass entry faces a new outdoor pool and stepped lawn. Ample outdoor seating surrounds the pool, and parking is screened from view—all to encourage people to use the outdoor space. Eventually to become the center of a mixed-use complex including a hotel and offices, this mall represents the increasingly dense use of many older mall sites.

Richard Barnes

Norman McGrath

Aker/Burnette Studio, Inc.

## P/A Inquiry Shopping Mall Rehabilitation

Perhaps the major force driving the rehabilitation of older malls is competition. With many urban areas having an oversupply of malls, and with anchor tenants in short supply because of the many recent mergers and cost-cutting efforts of department stores, the competition among malls for tenants has become keen. Existing malls, with anchor tenants in place, offer a clear advantage.

Along with the consolidation of department stores has come a slicing up of consumer markets into ever more narrowly defined niches. This has brought a new competitor: specialty malls, which are smaller facilities, often without anchor stores, that offer specific types of merchandise. "Specialty centers," says Alan Fairbrass of the International Design Group, "have definitely increased the competition among malls and have forced the rehabilitation of many regional centers just to keep up."

The most effective way for mall owners to attract tenants, though, is for them to attract shoppers, and here existing malls also have an edge. "The suburbs around many existing malls," notes Speakman, "have developed to a point where they are almost small urban centers, with a mix of building types—offices, hotels, health centers—and good public transportation to the sites."

The public transportation connections to many existing malls have become an important incentive for tenants, because retailers are finding it increasingly difficult to find employees in the suburbs willing to work for modest wages. Such transportation also has become important for the unemployed.

And the greater number and mix of nearby buildings, along with the greater number of public events, eases the promotion of many rehabilitated malls. "In one of our more urban malls," says Speakman, "the city uses the center 50 percent of the time for concerts and other community events. We help them promote those activities because they bring people into the mall."

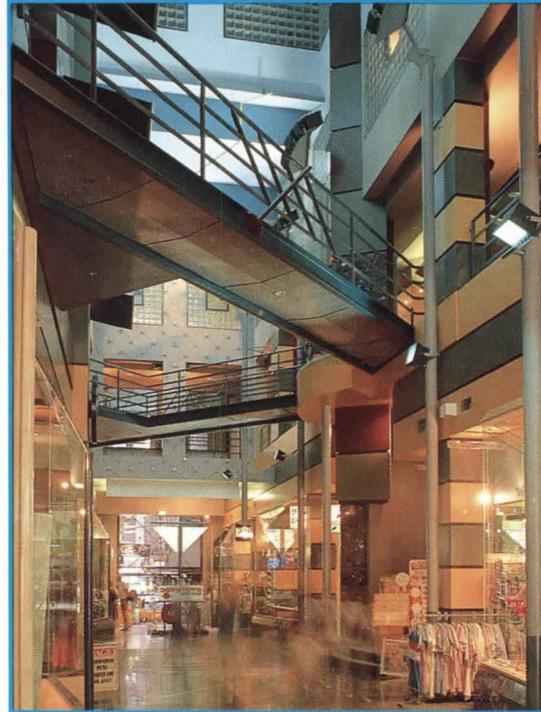
### Mall Overhauls

However attractive the rehabilitation of malls may now be for owners or investors, success still greatly depends upon the type and quality of the work. One of the most dramatic changes being made to older malls is the increase in light levels and the introduction of daylight. "Skylights," says Sharp, "whether clad in glass or fabric, are one of the essential elements of a renovation." The effect is to make malls more like urban streets, open to the sky, and to shift the emphasis from the stores to the public spaces. "The mall itself," notes Fairbrass, "now attracts people as much as the tenants."

Complementing that streetlike character is the increased use of fountains, planters, and seating. "Fountains are used to create noise and movement," says Brotman. While they can present operational problems—springing leaks or becoming clogged with coins or trash—few rehabilitated malls are without them. Plants also offer visual variety, although they can hamper the flexibility of the public spaces. "It is best to use movable planters where events might be staged," says Speakman.

The increased amount of seating is part of a larger effort to encourage people to linger in malls. "For these projects to be successful," says Brotman, "you want to increase the amount of time people spend in malls. That was how food courts got started: to keep shoppers in the mall over lunch." Food courts have become such an attraction in malls that they are often located away from high traffic areas. "Food courts," notes Speakman, "can be located on upper levels or be used to strengthen a weak area in a mall."

The newest trend along these lines is the installation of amusement rides and games. First



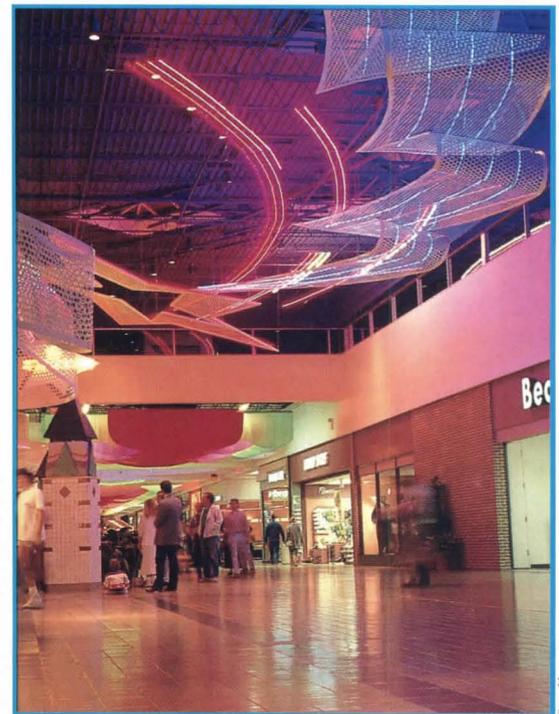
**Project: Centreway Arcade and Building, Melbourne, Australia. Architects: Cocks Carmichael Whitford, Melbourne.**

Replacing a one-story shopping arcade, this urban mall (left) is three stories high with a light shaft visually connecting it to upper-floor offices. The first floor contains a number of small shops with angled display cases to attract the attention of passers-by. The second floor contains more shops and a restaurant, and the third floor houses offices. Bridges connecting the second-floor functions angle across the mall space; a broad staircase midway down the arcade provides access to that floor. Major interior elements include marble flooring with marble strips connecting shop entrances, stuccoed walls, and large wall sconces.

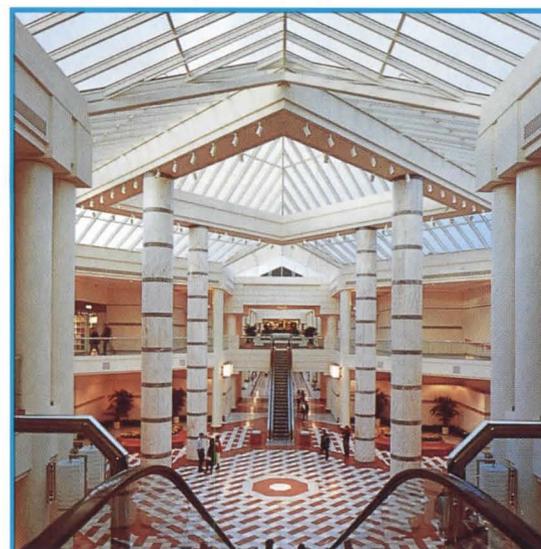
Earl Carter

**Project: Northwest Arkansas Mall, Fayetteville, Ark. Architects: Alamo Architects, San Antonio.**

Here is an example of how an older mall can be dramatically changed through a few simple and relatively low-cost moves (right). The architects removed the hung ceiling, painted out the exposed steel structure, installed skylights in various arched patterns, and inserted a lower layer of lighting, banners, and perforated metal panels that swoop and swirl overhead. The banners are scalloped as an allusion to trees. Neon lights and perforated metal panels form a giant comet that streaks through the mall. The architects widened part of the mall to create a food court, which has banners draped around columns as another reference to the Arkansas woods.



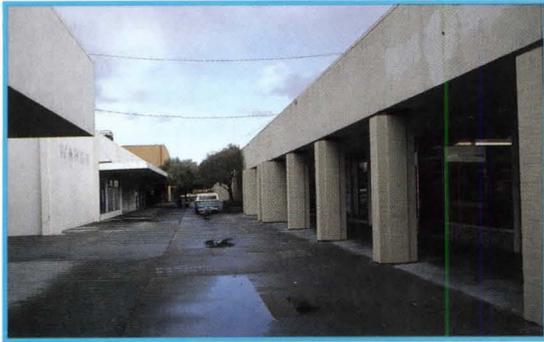
Don House



**Project: Stonestown Galleria, San Francisco. Architects: Field Paoli Architects, San Francisco.**

The increased use of malls by the public has demanded that they be much more flexible in design. The central space in this mall (left) has many characteristics that are becoming common in rehabilitated malls: large amounts of skylights, more durable stone flooring, and an overall lighter color palette. And unlike older malls that tended to have fountains or other features in the middle of their central space, this Galleria has an unencumbered floor for the staging of events.

Marvin Wax



John Field

**Project:** Corte Madera Town Center, Corte Madera, Calif. **Architects:** Field-Gruzen Associated Architects, San Francisco; Rasmussen Ingle Anderson, production architects. This rehabilitation of a 30-year-old shopping center involved the creation of a series of outdoor malls and passages that converge on a central courtyard (left). An exterior insulation system was used to give color to the buildings. A four-story office building was added to the mall, creating a greater mix of tenants and making fuller use of the parking area. The project shows the extent to which developers are embracing the public. The community was involved in the design of traffic patterns and in selecting the tenant mix and the office building contains a community meeting room.

**Project:** Inner Circle, Stanford Shopping Center, Stanford, Calif., **Architects:** Field Paoli Architects, San Francisco.

Trends in the retailing industry have pointed to an increase in the number of small specialty shops. While many of the latter have been accommodated in separate malls, some have been incorporated into existing centers. This open-air courtyard (right) is part of a new mall of 16 small shops inserted within the space of a shopping center's former department store. The mall connects two off-center entrances in the building. Because the existing trusses allowed only an 11-foot clear span, the architects enclosed the trusses in arches and created taller spaces in between, which are lit by skylights.



John Field



Dave Whitcomb

**Project:** Town Center at Boca Raton, Boca Raton, Fla. **Architects:** RTKL, Dallas.

An important aspect of many rehabilitation projects is their graphics. More than just providing information, graphic elements can be used to reinforce the theme of a mall or the image of its architecture. In this project, the palm trees that line the mall are also a recurring architectural and

graphic element. The signage for the mall's fabric-covered food court (left) reflects that, with its large, palm-edge signs that double as space dividers. Palm leaves also are used in the wall sconces and on kiosks and signage elsewhere in the building. Such "environmental graphics" not only enliven the mall, but tie it symbolically to its surroundings.

**P/A Inquiry**  
**Shopping Mall Rehabilitation**

employed at a large scale in the 110-acre West Edmonton Mall, in Edmonton, Alberta, these amusements can include miniature golf courses, roller coasters, giant slides, skating rinks, and carousels. The idea is to attract the entire family to the mall and to provide enough activities so that they will stay for hours. But many in the industry are unsure of the benefits. "The hard rides can greatly increase an owner's liability," says Fairbrass, "and some retailers see the amusement rides as distracting rather than attracting people." "The jury is still out on these entertainment facilities," says Brotman, although he recalls that "some developers also said that food courts would cost too much and take too much space. Now everyone wants one."

Surface materials employed in the rehabilitation of malls also reflect their greater use by and responsiveness to the public. The trend in floors has been to move away from soft, porous materials such as carpet toward harder, more impervious surfaces such as ceramic tile, natural or composite stone, or terrazzo. Many owners "prefer materials that have uniform color throughout," says Sharp, "in case the surface wears off."

Walls too are becoming harder and more durable. "In public areas," continues Sharp, "we recommend the use of plastic laminate, tile, or heavy wallcovering, and only a minimum amount of wood or drywall. In restrooms likely to become vandalized, we find that epoxy-coated concrete block works well and that small, dark-colored ceramic tile discourages graffiti."

Ceiling treatments vary, depending upon the project's budget and the image being sought. "Metal pan or linear metal ceilings," says Sharp, "are useful in renovations because they can be easily dropped below existing ceilings." Plaster ceilings seem to be more common in malls aiming at an upper-end market, and open ceiling or lighting grids with an exposed structure are still sometimes used in lower-budget projects.

**The Suburban Downtown**

In general, the rehabilitation of older malls represents a net gain for the public. However much they might be motivated by commercial interests, the provision of more public space, community events, natural light, eating facilities, and recreational activities all are changes for the better and suggest that, within areas it controls, the private sector can do a good job fulfilling public needs.

Where the private sector falls short, as malls both new and old show, is in its connections to things beyond its control. "One area that is not being addressed," says Kovar, "is the outside of malls. They are still brick boxes in a sea of asphalt." Even in built-up sites, with structured parking and a mix of other building types surrounding the mall, the forms tend to be physically separated and dispersed, so that the mall's public space, however much it might adopt the form and activity of traditional urban streets, does not function as such. Few connections to other properties are ever made. And architects who have made efforts to open malls to the outside or to connect to other nonretail buildings report considerable opposition. When Benjamin Thompson & Associates, for example, proposed opening up the new food court at the Century City mall to the street, they met resistance from the owner and the health department.

Still, such efforts need to be made. If the private sector is to be counted on to provide public amenities, then it must do more to connect to other, sometimes competing parties. And if malls are to become, as many in the industry say, the new suburban downtowns, then they must do more than just look the part. **Thomas Fisher**

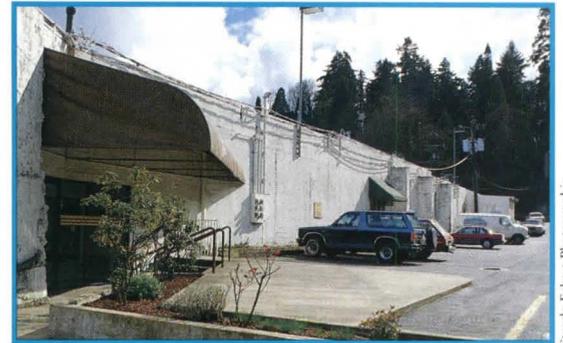


**Project: Beaverton Mall, Beaverton, Ore. Architects: SERA Architects, Portland.** Because the entrances to many older malls tended to be little more than holes in largely windowless exteriors (far left), the rehabilitation of many of these facilities frequently involves the upgrading or complete redesign of the entrances. To alter the image of this mall and to direct people to its entrances, the architects have redesigned the entry area to include a pyramidal skylight (covering a new multicolored, glass-block sculpture) and a new glass-and-steel tower (left). Such changes to the outside of the building, as well as the installation of new interior lighting, landscaping, and furnishings, have spurred many tenants to remodel.

Strode Eckert Photographic

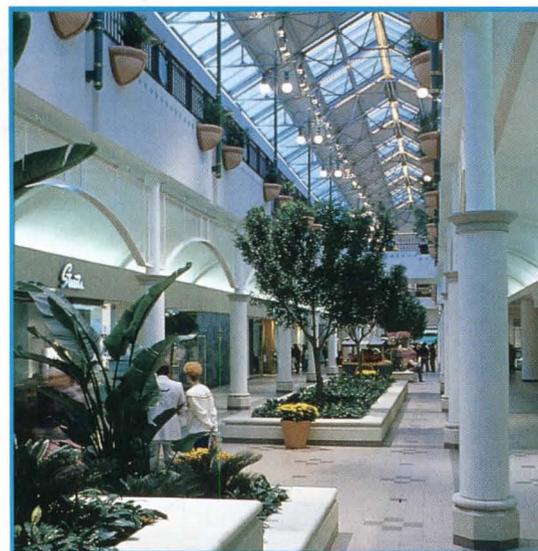
**Project: Uptown Shopping Center, Portland, Ore. Architects: SERA Architects, Portland, Oregon.**

Needed improvements to the outside of malls often extend beyond the entrances. The opening up of exterior walls with the insertion of new storefronts has become a way in which malls can give more public exposure to tenants and can have a more lively appearance. This shopping center has two levels of parking connected by a skylighted arcade open at both ends. The upper level of parking used to face a blank outside wall (above right), so the rehabilitation involved the placement of storefronts along that side (below right), presenting a much more interesting face to the public. Tying the storefronts together are canvas awnings.



Strode Eckert Photographic

Strode Eckert Photographic



**Project: Penn Square Mall, Oklahoma City. Architects: RTKL, Dallas.** The rehabilitation of malls often involves the expansion of the retail space, not just as a response to increased consumer demand, but as a means of paying for the improvements to the building. One way of expanding one-story malls is to add a second level of stores, as happened in this 27-year-old center (left). A second floor of stores was added on top of the existing structure, a new two-story structure was built facing it, and the old canopy was removed once the new skylighted roof was in place.

James Wilson



**Project: South Park Mall, Charlotte, N.C. Architects: HOK, St. Louis.**

To accommodate more public events and activities, some malls have had a marked increase in the amount of public space. In this mall, constructed in the 1970s, 50,000 square feet of new retail space was added, but 20,000 square feet of former tenant space also was converted into a large food court (left). The eating area is partly lit by clerestory windows. Round-arched gates further define the space and help separate it from the trafficked areas. Another 75,000 square feet of public space was rehabilitated, with the addition of new flooring, ceiling, light, skylights, planters, seating, landscaping, and sprinklers.

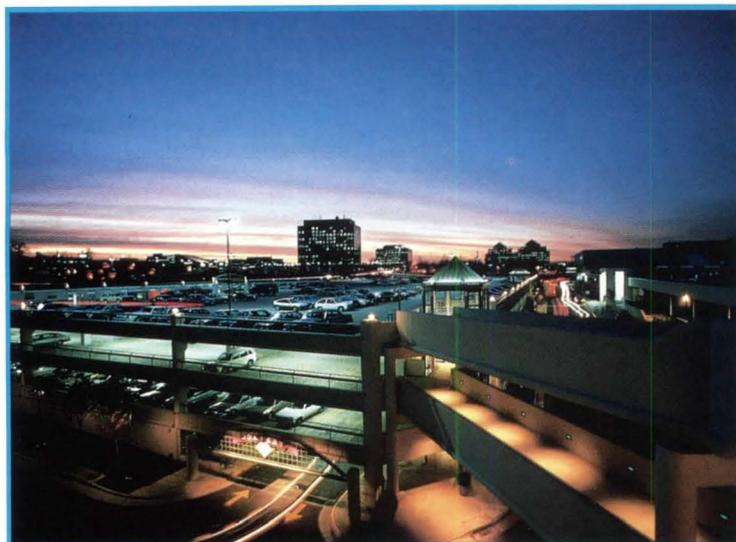
Courtesy of HOK

**Project: North Star Mall, San Antonio. Architects: Ray Bailey Architects, Houston.**

The most common way of expanding older malls is to add new retail wings, typically leading to new anchor department stores. While such additions may appear to be an easy solution, they can involve several complications. In this mall, the architects had to add a two-story addition to a one-story mall. They developed a split-level scheme, with the first floor of the addition four-and-a-half feet lower than the existing floor level to make the second floor seem less distant. A transitional area (right), containing stairs, escalators, and an elevator and focused on a central pool and fountain, eases the movement of people among the various levels.



Paul Hester



Stephen Spartana

**Project: Tyson's Corner Center, McLean, Va. Architects: RTKL, Dallas.**

Twenty years old, this mall stands in what has become a heavily built-up area of offices and residential buildings. Its rehabilitation shows the extent to which mall sites can become urban in character. This project involved the addition of several parking structures (left), the expansion

of the one-story mall with a second floor, and the conversion of storage space to retail functions. As in most of the rehabilitation projects on these pages, this one kept the mall open as work was being done, which affected some design decisions. A skylight, for example, was constructed over the existing roof, which was then removed after hours.

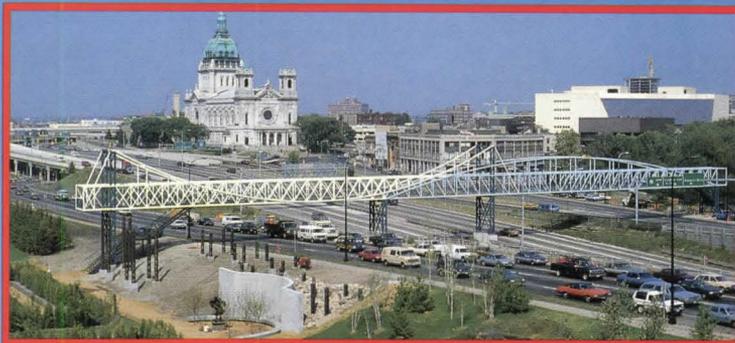
**Minneapolis Sculpture Garden  
Minneapolis**

# The Museum in the Garden

**An enlightened collaboration between  
public and private organizations produces  
a public sculpture garden that is a seamless  
fusion of landscape, art, and architecture.**



The view north from the Walker Art Center to the Minneapolis Sculpture Garden shows Sol LeWitt's granite crosswalk leading to Martin Puryear's 14-foot-high entrance columns. The southern two of the four 100-foot-square "outdoor galleries" are for changing exhibitions, while the northern two house works from the Walker's permanent collection, as do the



garden's linden-tree-lined axes. Connecting the garden to downtown Minneapolis is the Irene Hixon Whitney Bridge (inset), a 375-foot steel span designed by Siah Armajani. A poem by John Ashbery will eventually be set in bronze into the railings of the pedestrian bridge. Handicapped ramps had not yet been added when these photos were taken.



## Minneapolis Sculpture Garden

TO look at the elegant, sculpture-packed formal garden across the street from the Walker Art Center, you would think that the various works of art had simply marched out the Walker's front door and into the evergreen-walled "outdoor rooms" that define the garden, creating an al fresco annex to the art museum.

In fact, the seven-and-a-half acre, \$12 million Minneapolis Sculpture Garden is the product of an inspired public-private collaboration. The city's Park and Recreation Board owns the garden and will oversee its maintenance and security, while the Walker, which masterminded the project and raised most of the money to build it, will supply the art from its permanent collections and temporary exhibitions.

Architects Edward Larrabee Barnes/John M.Y. Lee & Partners developed the formal arrangement of four 100-foot-square "outdoor galleries," separated by major and minor axes, in which the sculptures are displayed. Barnes, who designed the Walker's 1971 building, intended this formal plan to serve as a flexible foil for the exhibitions, and to contrast with the Romantic naturalism of nearby Loring Park. A 250-foot-long greenhouse on the garden's western edge provides a covered walkway from the parking areas to the Walker and its neighbor, the Guthrie Theater.

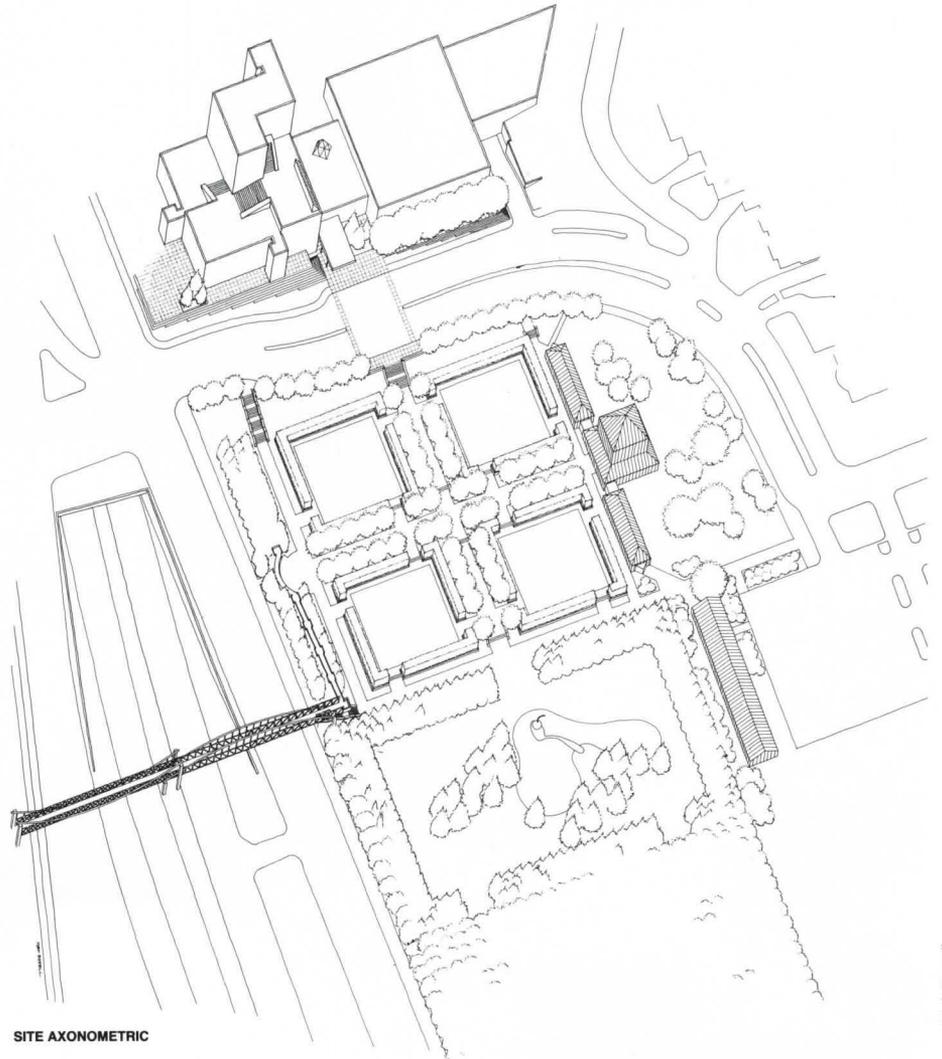
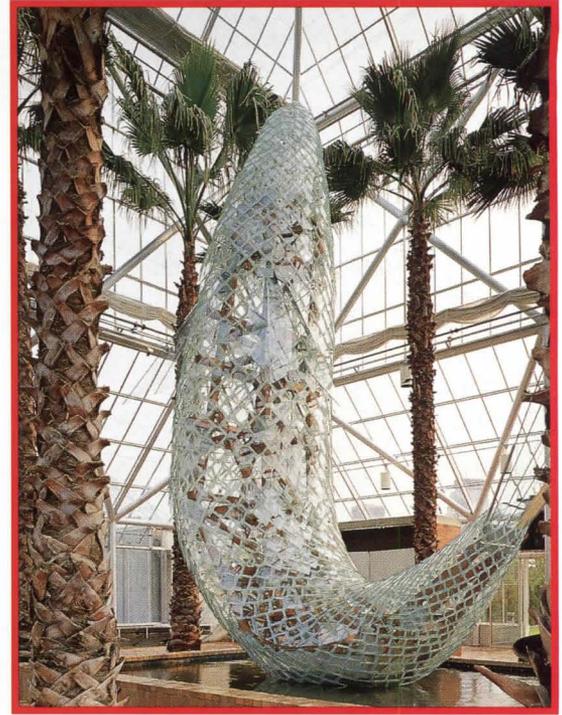
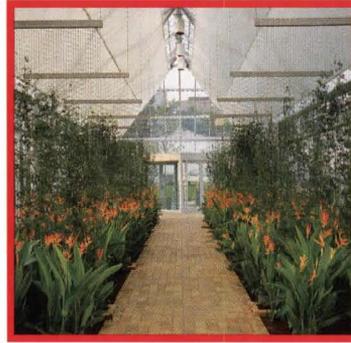
Landscape architects Quennell Rothschild Associates were commissioned to design the garden's landscaping—a formidable task. The unstable soil conditions of the site, which was once a lakebed, necessitated building the garden and greenhouse on 80-foot piles. And Quennell Rothschild's design for the arborvitae-topped, battered granite walls that define the four square quadrants cleverly conceals the site's six-foot drop in grade.

Within this framework, the Walker commissioned site-specific artworks that combine inspiration and utility. Design curator Mildred Friedman asked landscape architect Michael Van Valkenburgh and landscape designer Barbara Stauffacher Solomon to design horticultural installations for the greenhouse interior; Frank Gehry created a 22-foot-high glass fish that leaps above a lily pond in its center house. Martin Puryear contributed a pair of 14-foot-high granite columns for the garden's entrance; Jackie Ferrara designed a cedar seating platform next to the greenhouse. Sol LeWitt's elegant granite crosswalk connects the garden to the Walker across Vineland Place.

A planned pool at the north end of the garden was turned over to Claes Oldenburg and Coosje van Bruggen, who created a giant spoon, topped by a cherry that sprays water, over a pond. And Siah Armajani designed a 375-foot-long steel bridge that spans Interstate 94 to connect the garden's site to Loring Park and downtown. The result of these efforts is a park that obliterates the boundaries between landscape, architecture, and art.

Parks superintendent David Fisher cites the importance of "trustful relationships" in this complex collaboration. Furthermore, Martin and Mildred Friedman are exacting clients and tenacious advocates. Although Martin Friedman waxes enthusiastic about working with a public agency ("People have a sense of obligation to their constituency"), his frequent exercise of decidedly un-democratic veto power ("What's a committee?" he asks, only half facetiously) made sure that the finished product was up to the Walker's perfectionist standards. The garden, which combines public-sector accessibility with a private-sector intensity of vision, is a work of public art that is indeed a work of art.

*Pilar Viladas* ■

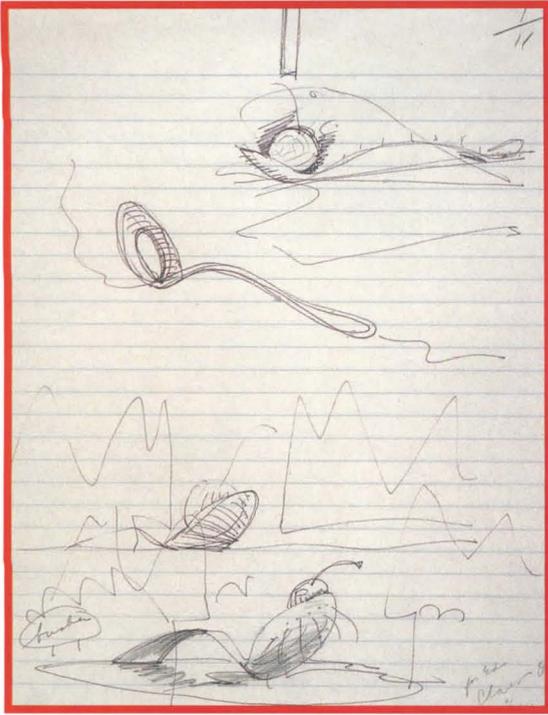


SITE AXONOMETRIC



The Sage and John Cowles Conservatory, a 250-foot-long greenhouse with a steel pipe structure, houses Frank Gehry's 22-foot-high *Standing Glass Fish* (facing page, right) in its 62-foot-high center house, above a lily pond surrounded by Washington fan palms. The conservatory's interior landscaping was designed by Michael Van Valkenburgh and Bar-

bara Stauffacher Solomon. In the north house (facing page, top left), a series of topiary arches is hydroponically grown; the south house (facing page, bottom left) is for temporary horticultural installations, the first of which, by Van Valkenburgh and Solomon, combines jasmine vine "scrim" and orange heliconia.



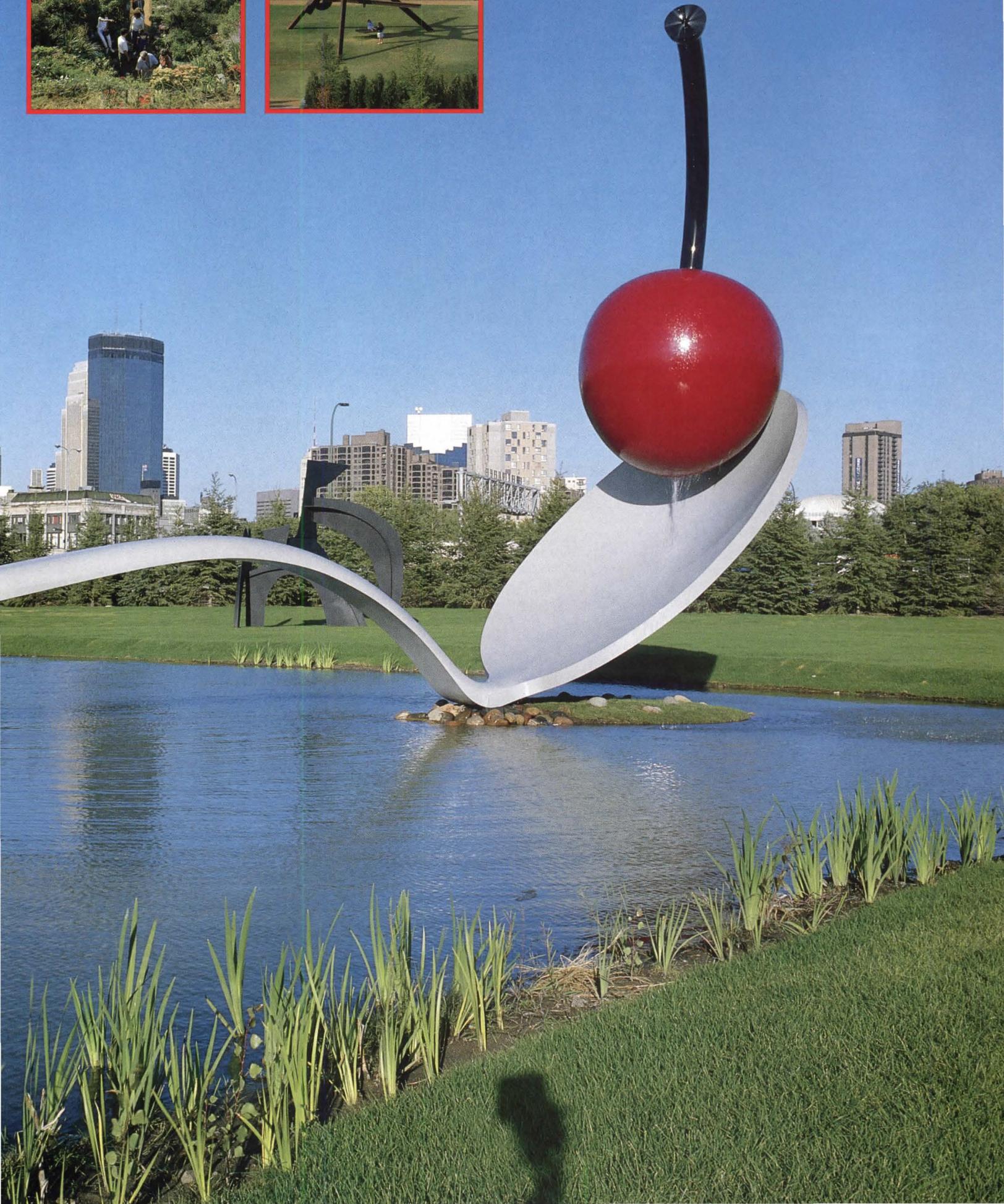
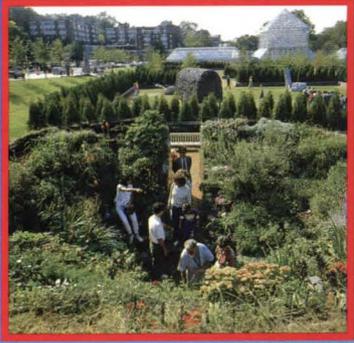
**Project:** Minneapolis Sculpture Garden, Minneapolis, Minn.  
**Architect:** Edward Larrabee Barnes/John M.Y. Lee & Partners, New York (Edward Larrabee Barnes; Alistair Bevington, principal in charge). Landscape architect: Quennell Rothschild Associates, New York (Peter Rothschild, partner in charge; Claudia S. Thornton, project landscape architect), sculpture garden; Michael Van Valkenburgh, Cambridge, Mass., and Barbara Stauffacher Solomon, San Francisco, conservatory interior.  
**Client:** Minneapolis Park and Recreation Board (David Fisher, Superintendent of Parks; Dennis Ryan, Dir. of Engineering; Sandra Welsh, Landscape Architect).  
**Site:** a 7.4-acre, previously undeveloped city park, bordered on the north by open land; on the south by the Walker Art Center and Guthrie Theater; on the east by Interstate Highway 94 and Loring Park; and on the west by a residential district.  
**Program:** sculpture garden for permanent and changing sculpture exhibition; includes an 8000-sq-ft conservatory to display horticultural art and provide a sheltered walkway between the parking lot and the museum and theater.  
**Structural system (conservatory):** steel pipe frame, welded construction; concrete grade beam system foundation on 80-ft driven steel piles.  
**Major materials:** granite (sculpture

garden); concrete; tempered glass; steel; aluminum glazing system; brick paving (conservatory) (see *Building Materials*, p. 158).  
**Mechanical system (conservatory):** gas-fired boilers; hot water fin-tube radiation at perimeter walls, with supplementary unit heaters; automatically hinged, electronically controlled ventilator system with subsidiary supply and exhaust fans.  
**Consultants:** Thomas H. Otto & Associates, structural (sculpture garden); Weidlinger Associates, structural (initial design); Bakke, Kopp, Ballou & McFarlin, Inc., structural (design development/working drawings); Gerald Palevsky, P.E., mechanical; Bakke, Kopp, Ballou & McFarlin, Inc., mechanical/electrical; Howard Brandston Lighting, lighting; MTI Distributing Co., irrigation; Donald Borrman, project coordinator; Mark Kramer, coordinator of exhibition installations.  
**General contractor:** C.S. McCrossan Construction, Inc., sculpture garden site development; Arkay Construction, conservatory; Noble Nursery, Margolis Brothers Landscape, landscape contractors; Killmer Electrical Co.; Cy-Con, Inc., bridge contractor.  
**Costs:** \$2,340,000 million (sculpture garden); \$1,836,500 (conservatory, not including interior landscaping); \$1,600,000 (bridge).  
**Photos:** Mark Darley.

**Spoon Bridge and Cherry**, the 52-foot-long, 29-foot-high fountain sculpture by Claes Oldenburg and Coosje van Bruggen (below, and sketch, left), bridges a pond that is shaped like a linden seed and edged with irises and reeds. Water flows over the surface of the aluminum cherry, and sprays from its stem. The sculpture sits in a 200' x 350' lawn enclosed by Black Hills spruces.

Among the garden's other delights are Meg Webster's **Glen** (facing page, left), a crater-shaped perennial garden, and Mark Di Suvero's **Arikidea** (facing page, right), a Cor-ten steel sculpture with a cedar swing.





## P/A Technics Light for the Site

**Five examples of lighting tailored to specialized settings show that good lighting, at any scale, lies in the details.**

EVEN the best of buildings, improperly lighted, can pale to the critical eye. So it comes as no surprise that architectural projects ranging from intimately scaled boutiques and restaurants to rambling civic and institutional complexes frequently involve the expertise of lighting consultants. The power of light to alter impressions of buildings and to greatly enhance their functionality places a heavy burden on the lighting designer, specialist or not.

The proliferation of new lamps and specialized fixtures, balanced against refinements in color rendering and energy efficiency, leads to a design equation that, at first blush, presents a dizzying set of variables. To their credit, lighting manufacturers have recognized the pressing need to assist those who, while required by profession to have some competency in the subtleties of lighting, lack significant training in the technology. Philips Lighting, for example, opened its comprehensive Lighting Center earlier this year. The center, located in Somerset, New Jersey, offers a range of mock-ups and seminars. GE Lighting, now in the midst of a thorough revamping of its GE Lighting Institute in Cleveland, says it will begin offering educational programs to lighting specifiers again in mid-1989. These centers serve as valuable resources to designers who are interested in expanding their command of lighting technology and theory at the most rudimentary or advanced levels. And such efforts are not limited to manufacturers. The Illuminating Engineering Society has developed a series of lighting energy management documents setting guidelines for energy-conservation, maintenance, operation, and controls.

Of late, the news in lighting technology has focused on the miniaturization of light sources—and the rush to shrink fixtures and attendant hardware, such as transformers. “The trend in atriums, lobbies, restaurants, and retail stores is to put light only where it needs to be,” says Mark Roush, manager of lighting education at the Philips Lighting Center. “And to do that, you need small, controllable beams of light.” Often used in such applications is the MR16 lamp, a two-inch-diameter tungsten-halogen lamp whose overwhelming popularity has led critics to call it the lighting cliché of the 1980s. But the trend continues: an even smaller MR11 lamp will soon be available,

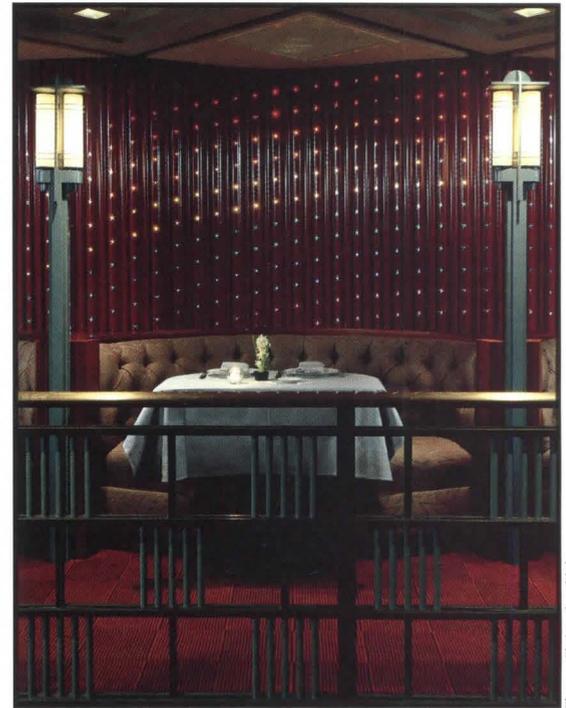
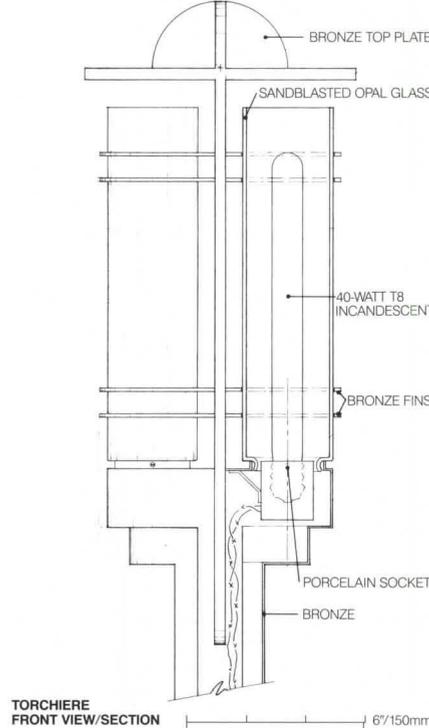
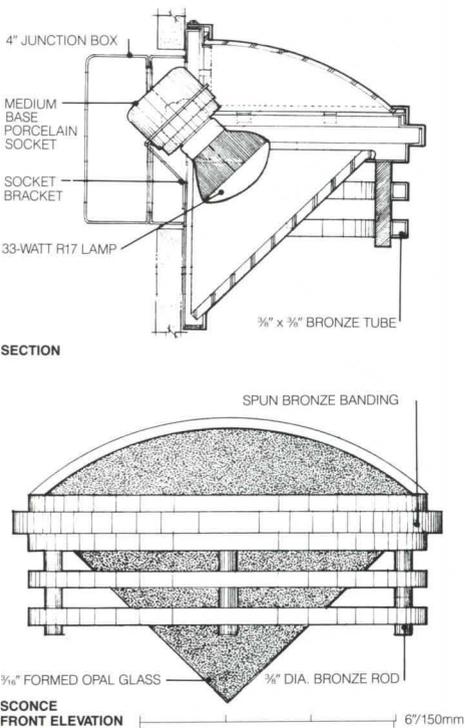
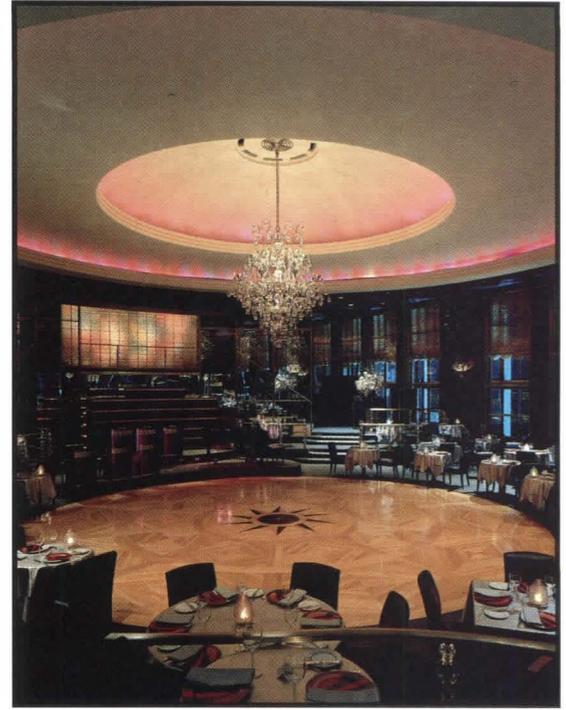
says Gilbert H. Reisling, of the National Electrical Manufacturers Association.

Both aesthetics and energy are driving forces behind the development of small lamps, though “energy is less a concern than it was for a while,” says Bob Davis, manager of lighting application and research for GTE Sylvania. Davis says dissatisfaction with the color rendition of many energy-efficient sources led people to temper their belief that energy saving is good at all costs.

Energy-related factors undoubtedly feed the current popularity of fluorescents which, in the words of one journal, are showing “an amoeba-like ability to diversify and change shape.” The shrinking of the fluorescent tube, both in diameter and length, is a development that many say will have significant changes on office ceilings, which will be freed from the standard 2' x 4' grid dictated by the former dimensions of fluorescent tubes. Perhaps the biggest story in fluorescent lighting is the refinement of phosphor technology, producing so-called “triphosphor” lamps that have color superior to the once dominant cool white bulbs, while maintaining high efficiency.

Meanwhile, energy codes are clamping down on designers in ways that virtually eliminate the sole use of incandescent lights in large applications. Strictest among the states is California. But designers who have been conscientious in California and breathing easier elsewhere may soon find tougher compliance requirements throughout the country, if proposed revisions to the ANSI/ASHRAE/IES lighting standards are endorsed. Standard 90.1P, the sweeping energy guideline that includes a lighting section more stringent than the current version, will become the new model for statewide energy codes, when approved. Add another variable to the lighting equation.

What follows are glimpses at a broad range of lighting applications and descriptions of how each case was approached on a site-specific basis. Not all are flashy. Many of the solutions, in fact, rely on thoughtful uses of readily available luminaires, often applied in the most inconspicuous manner. Lighting designer David Mintz, for instance, feels better about an installation if it goes largely unnoticed. Says Mintz: “If someone compliments me on my lighting job, I begin to wonder what I did wrong.” *Vernon Mays* ■



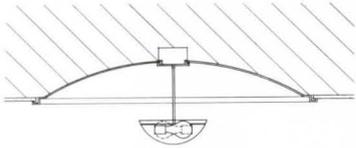
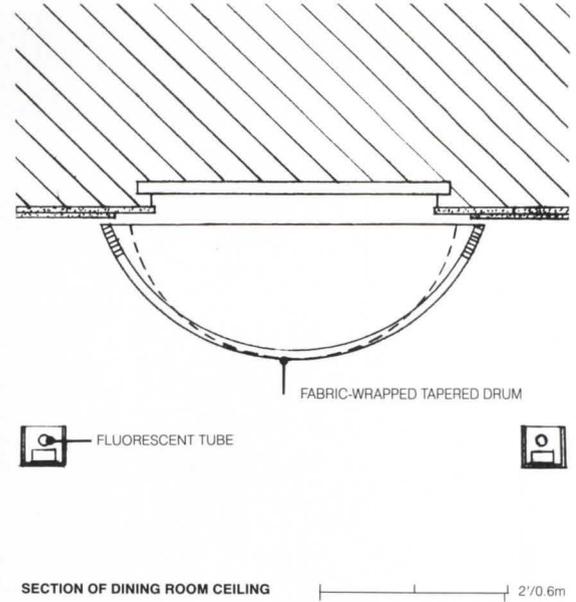
**Project: Rainbow Room, New York. Lighting consultants: Jules Fisher & Paul Marantz, Inc. Architects: Hardy Holzman Pfeiffer Associates.** The composition of discreet spaces that make up the two-story Rainbow Room complex offered opportunities to develop a myriad of lighting schemes, which had to create atmosphere without upstaging the architecture. "It may be hard to believe that a striking view of the Empire State building is a design dilemma," says Teal Brogden, of Fisher/Marantz. "But, when the fog rolls in, the interior environment has to be worth the trip." By stressing the use of am-

bient light on horizontal surfaces, while concentrating focal light on and in vertical architectural details, the designers minimized window reflections that would obscure city-gazers' views. In the new Rainbow Pavilion (top left), glass sculptures, highlighted by movable 25-watt MR16 uplights, add to the festive setting. The display of Chihuly glass art contributes ambient light to the room, while its placement in high niches does not diminish the panorama beyond. Indirect lighting fixtures above the perimeter windows, combined with recessed downlights above the dining tables, add contrast. In

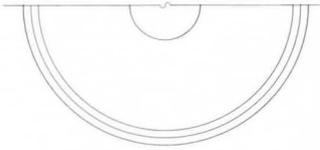
the signature space, the restored Rainbow Room (top right), a computer-controlled light symphony plays against the shallow dome of the ceiling. Dimming systems with multiple presets allow balancing of natural and artificial light according to the brightness outside and condition of the view. A vast collection of custom-designed fixtures, some from Fisher/Marantz and others by commissioned outside artists, grace the project. In the Rainbow and Stars Room (above right), fiber-optic stars designed by Milton Glaser add a fine texture to the wavy banquette wall. Fisher/Marantz designed,

among many others, the bronze torchieres (between the banquettes (drawing and photo, above) and cone-shaped wall sconces (drawings, above left) that appear in the bar. In order to meet the mandated 5-watts-per-square-foot energy budget, strategies were developed to compensate for the use of high-wattage, four-color floodlighting of the cast glass wall that serves as backdrop to the orchestra. In many cases, decorative lighting elements capitalized on reflected light from the fringes of an open-aperture downlight played off a dropped ring or other form.

Photos: Christopher Little

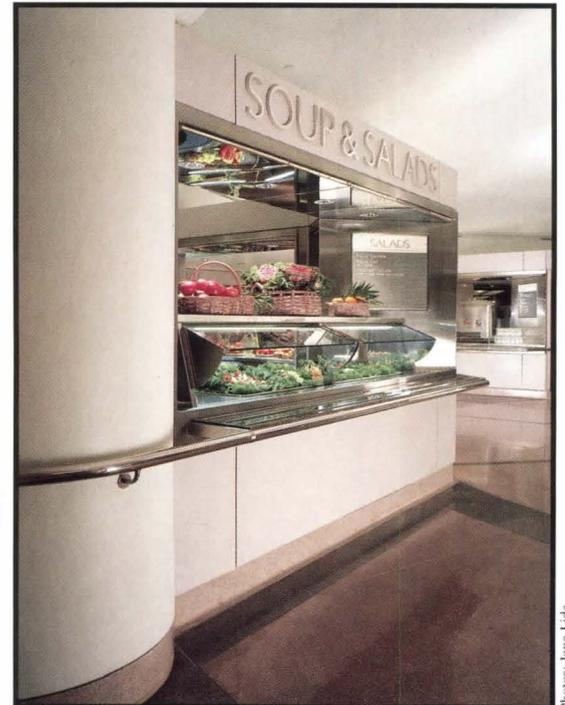
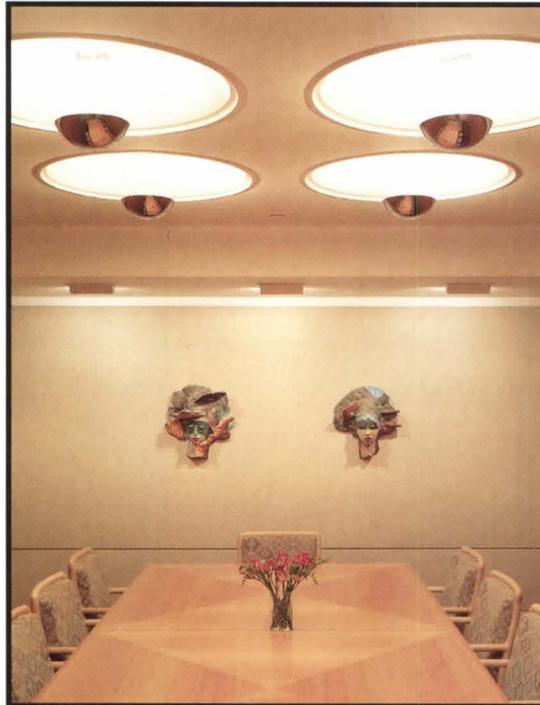


SECTION



1'/0.3m

REFLECTED PLAN AND LAMP DETAIL



Photos: Jane Lutz

**Project:** Food Service Facility, Pacific Bell Administration Offices, San Ramon, California. **Lighting consultants:** David A. Mintz. **Architects:** Skidmore, Owings & Merrill, San Francisco.

In lighting the cafeterias and dining rooms that cater to more than 7000 employees daily, "the idea was to give a variety of lighting experiences and colors, without making it garish," says lighting designer David Mintz. Knowing that the workforce spent all day under fluorescent lights, Mintz wanted to provide a welcome change during employees' lunch hours. "But we were dealing

with the state of California, which has a strict energy code. That alone would have precluded the use of only incandescents," Mintz says. The sheer size of the 1200-seat main dining room caused acoustical problems that eventually worked to Mintz's advantage in providing an alternative lighting scheme that relied on fluorescents. Acoustical consultants called in on the problem recommended installing curved, fabric-wrapped fiberglass panels in the ceiling (which, incidentally, were dropped slightly to double as return-air ducts). Mintz capitalized on the ceiling form. His re-

sponse was to bounce light off the scalloped ceiling from fluorescent lights housed in custom-made extruded channels (photo and drawing, top), arranged in a radial pattern in deference to the facility's circular geometry. To add a change of pace and a contrasting sparkle, Mintz added incandescent downlights beneath the soffit.

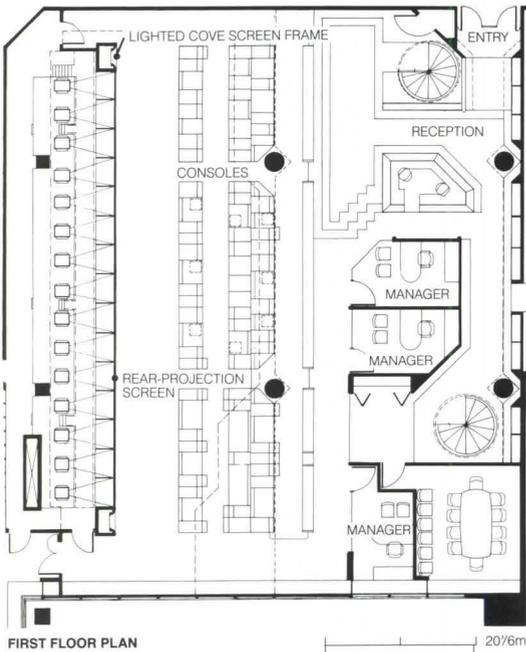
Different considerations guided the lighting of the food servery (above right). The combination of a lower ceiling and bright lights (MR16 point sources) under a stainless steel soffit were intended to draw attention to this central space. Additional casework

lighting in the sneeze-guards gives a general wash of light over the food. The facility includes a number of private and semiprivate dining rooms, as well. In one conference dining room (above middle), custom fixtures designed by the architects feature a pendant light in which two 200-watt A lamps housed in a polished chrome bowl reflect light off a painted aluminum dome (drawings, above left).

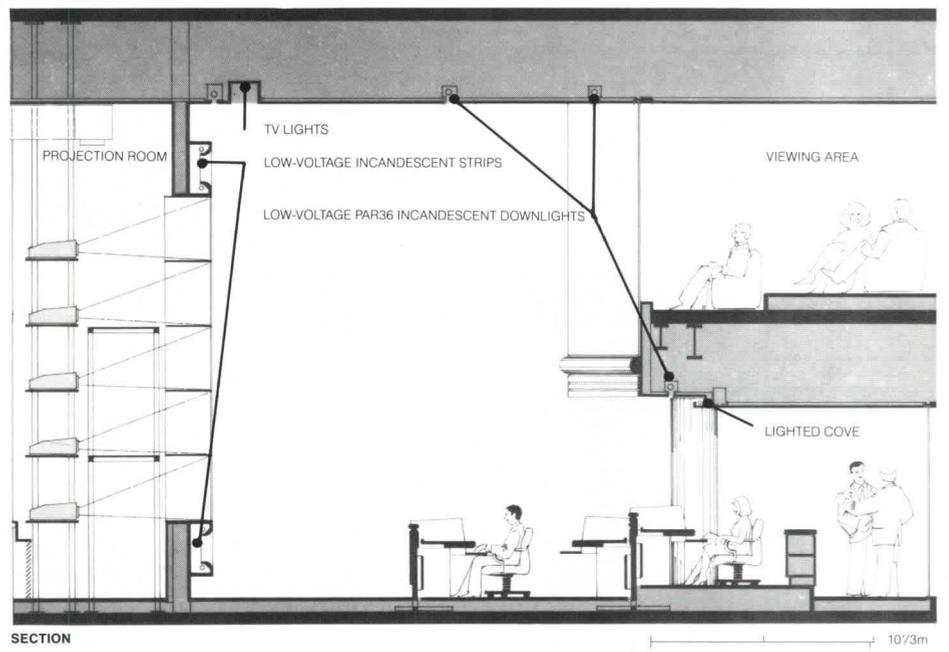
"Although much of this is custom-design, we did a lot of it with standard products," says Mintz. "We avoid exotic, so that the lighting is affordable, replaceable, and maintainable."



Photos: Andrew Carn



FIRST FLOOR PLAN



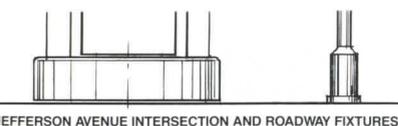
SECTION

**Project:** AT&T Network Operations Center, Bedminster, New Jersey. **Lighting consultants:** Light & Space Associates. **Architects:** Jorge O. Sosa Architects with Pavel Cillik. The program for this corporate nerve center, where round-the-clock computer operators monitor the volume of calls through the Bell System, presented enormous challenges to designer Peter Barna. "From a lighting point of view, much of what AT&T wanted was in conflict," Barna says. First on the wish list was to upgrade from a fixed display board to an active system that could be re-

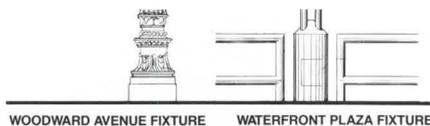
programmed to simultaneously display separate regions within the system. Choices were narrowed to a rear-projection video system, which mandated a low ambient light level in the room. Yet operators at the terminals also require task lighting to complete paperwork and consult reference books. Barna supplied task lighting with low-voltage PAR36 lamps in recessed adjustable-angle ceiling fixtures, an approach that provided a concentrated beam of light on the work tables with almost no spill. (Small goose-neck fixtures fitted with miniature quartz lamps were provided as supplemental task lights.)

Barna supplied a low level of ambient light to illuminate operators' faces, and his solution solved another problem in the process. He provided a one-foot-wide border of indirect, incandescent light around the projection screens (top right) to give facial lighting, and in the meantime reduced the operators' adaptation strain from looking back and forth between white paper and the dark screen. An additional lighted cove in the rear of the control center (drawing, above right) provides ambient lighting for workers under the gallery. The job was further complicated by AT&T's desire to

have permanent TV lights in the room to allow videotaping without requiring film crews to haul additional lights into the space. Last, because the center often accommodates visitors, a viewing room was added in a second-floor gallery and enclosed in glass to seal out noise that would disrupt activity on the operations floor. But how to keep reflections off the glass, both in the viewing area and the offices (photo, top left) below? Barna kept light away from walls parallel to the glass, instead bouncing light off the side walls. There is a four-scene preset dimming system.



JEFFERSON AVENUE INTERSECTION AND ROADWAY FIXTURES



WOODWARD AVENUE FIXTURE WATERFRONT PLAZA FIXTURE



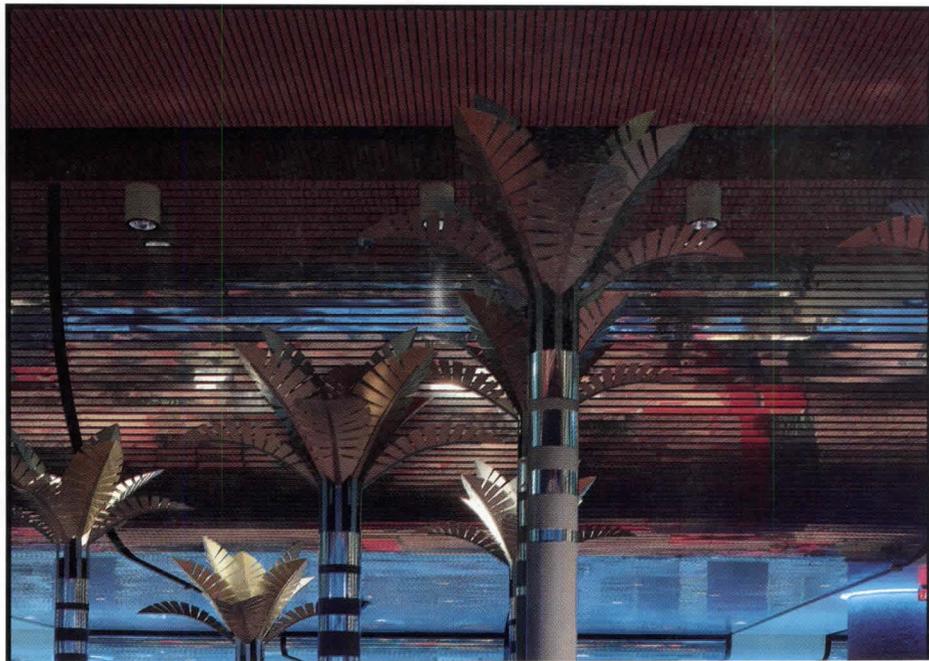
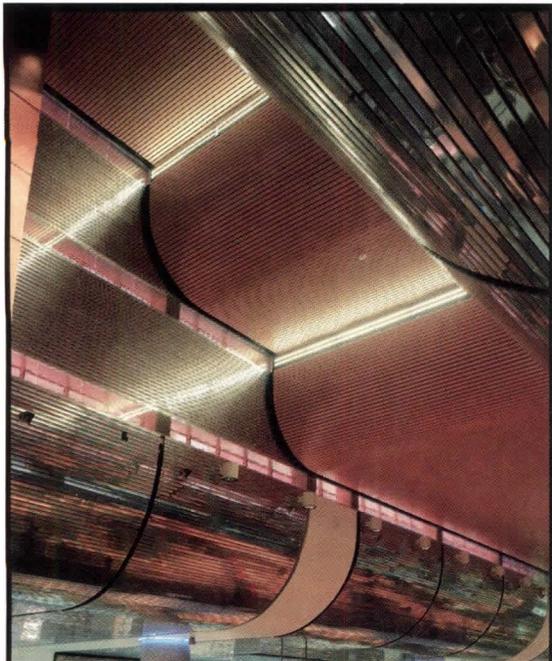
Benjamin Roudel

**Project:** Downtown Detroit Master Lighting Plan. **Lighting consultants:** Howard Brandston Lighting Design. The scope for this project, budgeted as a \$15 million endeavor that will take at least five years to complete, is a differentiated lighting program for the streets and landmarks of Detroit's urban core. The plan (map, top) establishes a hierarchy of downtown streets and reinforces the downtown financial, entertainment, and waterfront

moat—that cuts off the city from all directions. Motorists are compelled to enter downtown via one of eight bridges crossing the highways, and lighting designer Howard Brandston recommended emphasizing those points of entry with monumental light fixtures framing the bridges. A conscious effort was made to preserve historic elements of Detroit's lighting system. Reproduction light standards die-cast from the city's 1920s street lights, for example, will

porary as one moves from the historic center of the city toward its waterfront district and Renaissance Center. Jefferson Avenue will be showcased with towering modern fixtures that emphasize it as the symbolic borderline with Canada. The only aspect of the project now complete is the lighting of Hart Plaza (photo, above), the urban park along the Detroit River. The brushed-aluminum fixtures used in the plaza were designed to fit the con-

finish inside as well, which gives it a very nice quality," says Lien. The fixtures are fitted with 175-watt metal halide lamps to give a whitish glow. "We were looking for better light, not more light," Lien says. The master plan's broader mission encompasses the lighting of major buildings, churches, fountains, statues, and parks in the city, as well. Detailed calculations were done on statues and churches within the district and lighting

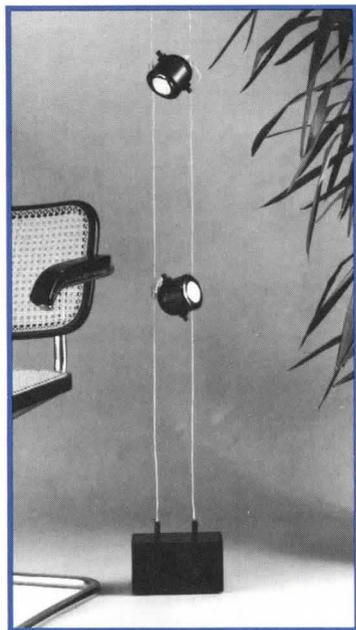


## Technics-Related Products



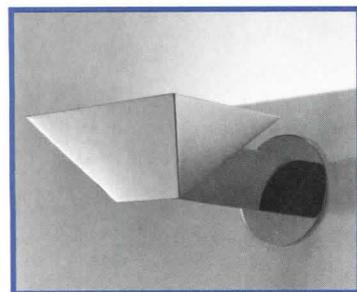
This pendant lamp-housing consists of two cast-glass cones joined together with a glass diffuser ring. The Zefiro 3 is the largest of three similar fixtures, which are available with white cones and a blue ring or with blue cones and a white ring. Atelier International.

Circle 108 on reader service card



A halogen ladder lighting system carries three round-back metal fixtures on parallel cables up to ten feet long. A 75-watt or 150-watt transformer is enclosed in a metal housing at the base. Each halogen spot bulb delivers the equivalent of 100 watts of incandescent light while consuming only 20 watts of energy. Electrix.

Circle 103 on reader service card



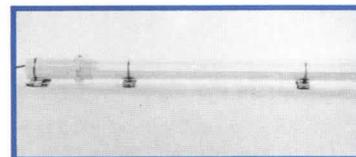
A stainless steel wall sconce has a 12-inch-wide trough-shaped lamp housing, a triangular support arm, and a circular wall mounting. The Delta sconce holds a single 300-watt halogen bulb. Brueton Industries.

Circle 109 on reader service card

A recessed wall washer unit measures only four inches in depth, making it adaptable for use in walls as an uplight or floor light. The rectangular unit holds a fluorescent lamp. Engineered Lighting Products.

Circle 110 on reader service card

A hung fluorescent luminaire provides indirect lighting for rooms with ceilings as low as eight and one-half feet. The LCI fixture is three inches deep, and



An acrylic light tube called Lightpipe™ can be used to delineate exterior architectural features in a manner similar to neon. An interior reflective surface spreads light evenly throughout the tube for up to 40 feet using one metal halide lamp. Filters can be inserted to provide variations in color. TIR Systems.

Circle 104 on reader service card

Flexible strip lighting contains

ety of channel extrusions for specific mounting locations such as stairs and floor-wall corners. The lamps are easily replaceable and are wired so that, if one lamp burns out, the others stay lighted. Celestial Products.

Circle 105 on reader service card

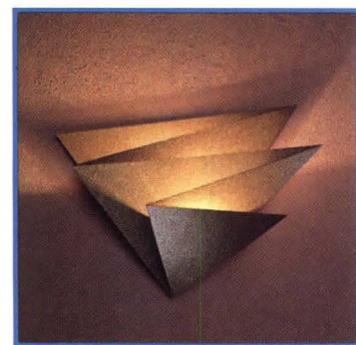


A low-voltage miniature PAR fixture is made for low-profile architectural and display applications. The dichroic coating on the fixture's reflector abates over 60 percent of the heat energy from the light beam for cooler temperatures in the illuminated area. Times Square Lighting.

Circle 106 on reader service card

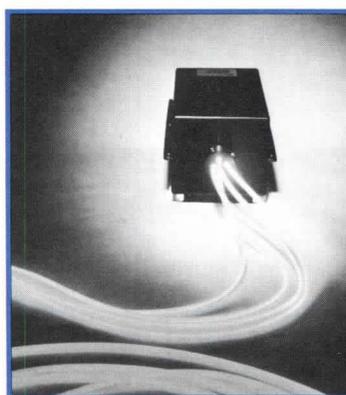
A concealed track lighting system called Recessed Trak™ houses track and fixtures in the ceiling, leaving only linear trim and a two-inch slot exposed. The system largely retains the aiming flexibility of standard track lighting. The tracks can be run in continuous lengths, and prefabricated intersections are available. Alkco.

Circle 100 on reader service card

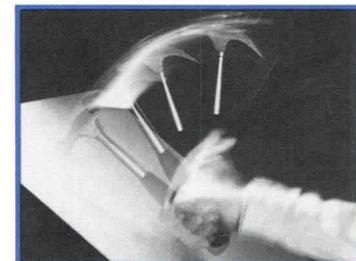


A solid metal wall sconce creates unusual shadows through its angular form. The Zag sconce holds three incandescent lamps and is finished in bronze, copper, nickel-chrome, or aluminum over solid brass construction. Ruine Design Associates.

Circle 101 on reader service card



A fiber-optic lighting system allows long, flexible, neonlike tubes of light to burn from a



A prismatic lens for fluorescent lighting fixtures offers ten times the impact resistance of conventional lenses. The KSH-25 Acrituf™ lens is appropriate for such high-impact areas as sports complexes and manufacturing areas and is available for recessed and surface-mounted

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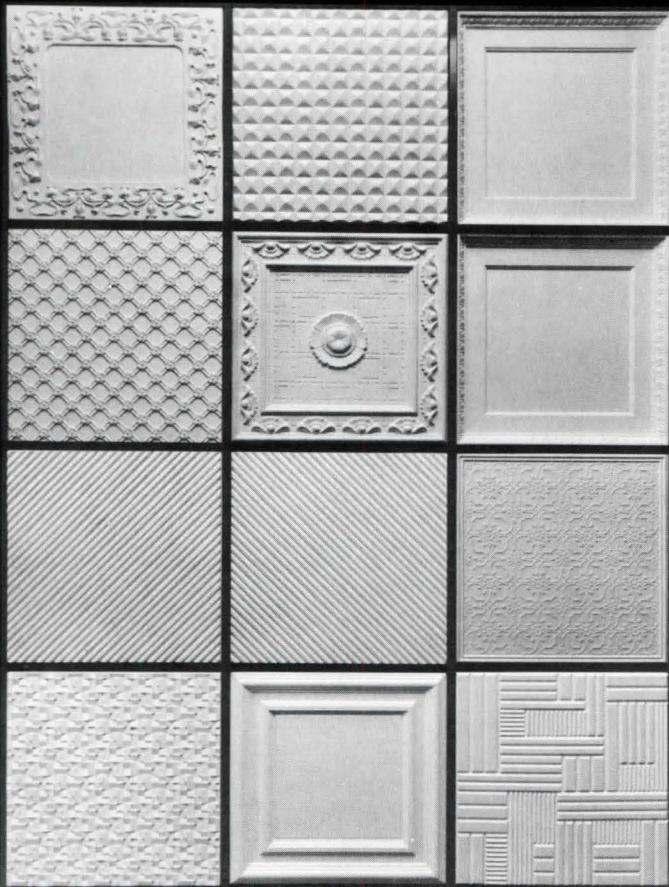
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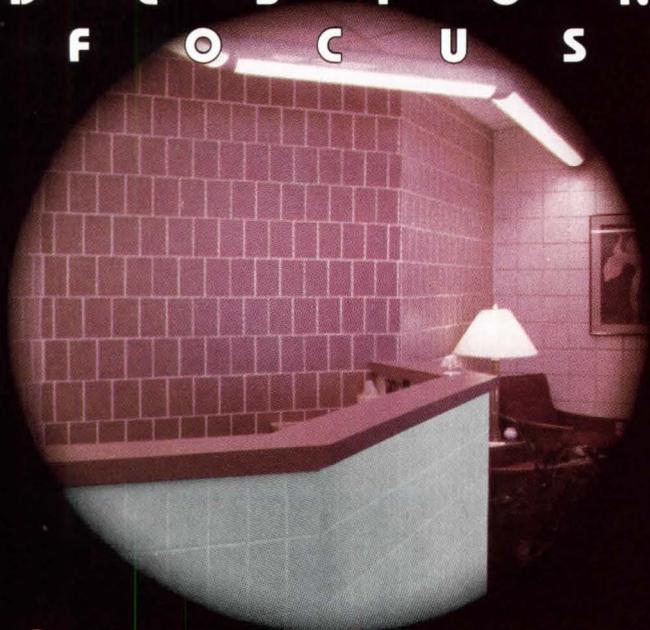
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(continued from page 114)

**A miniature lamp** called Designer 16™ projects a powerful beam of light from an unusually small light source. The lamp, available either as a narrow spot or narrow flood beam, measures two inches in diameter and is less than three inches long. It fits a standard medium-base incandescent socket. GTE Sylvania.

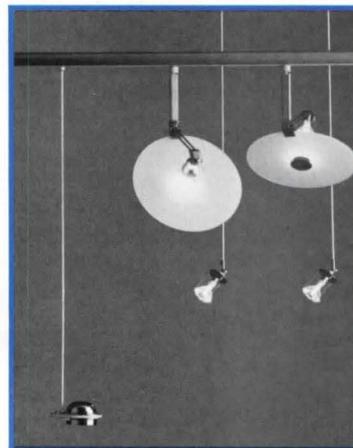
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**A low voltage lighting system** consists of two rails that conduct power to halogen lamps mounted on telescoping arms. The lamp heads can be tilted, locked, and rotated 360 degrees. The arms can be removed and clipped to any location on the rail. The basic Light Rayl system includes a six-foot track, three heads and a remote 500-watt transformer.

GEO International.

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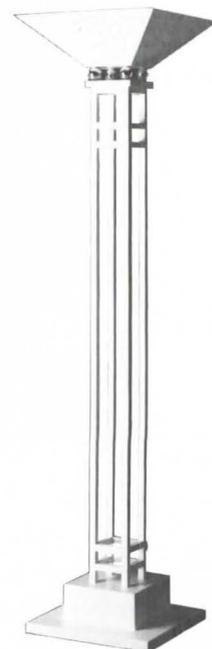


**A track-lighting system** designed by Perry King and Santiago Miranda employs lengths of aluminum track suspended from stainless steel cables. Four different fixtures are offered with the system, which is called the Expanded Line Network. The tracks are available in two lengths and four colors and can support up to four or six fixtures. Flos.

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**A wallbox dimmer** for solid-state, low-voltage lighting is the first product designed for such a purpose. The NTELV-300 and NELV-450 control solid-state low-voltage lamps either alone or in combination with conventional incandescent lamps. They feature devices to prevent overloading circuits and short circuits. Lutron.

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**A six-foot floor fixture** with an inverted pyramidal shade provides glare-free indirect lighting while maintaining an uncluttered ceiling. The Venus torchiere has a painted shade floating on brass spheres supported by a painted structure and base. Visa Lighting.

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**Compact track lighting** fixtures in the C-153 Series are designed for lighting retail spaces. The series provides a basic, non-filtered incandescent light and prevents the glare often brought about by shallow lighting angles. Lighting Services, Inc.

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(See Technics, Specialized Lighting, p. 108.)

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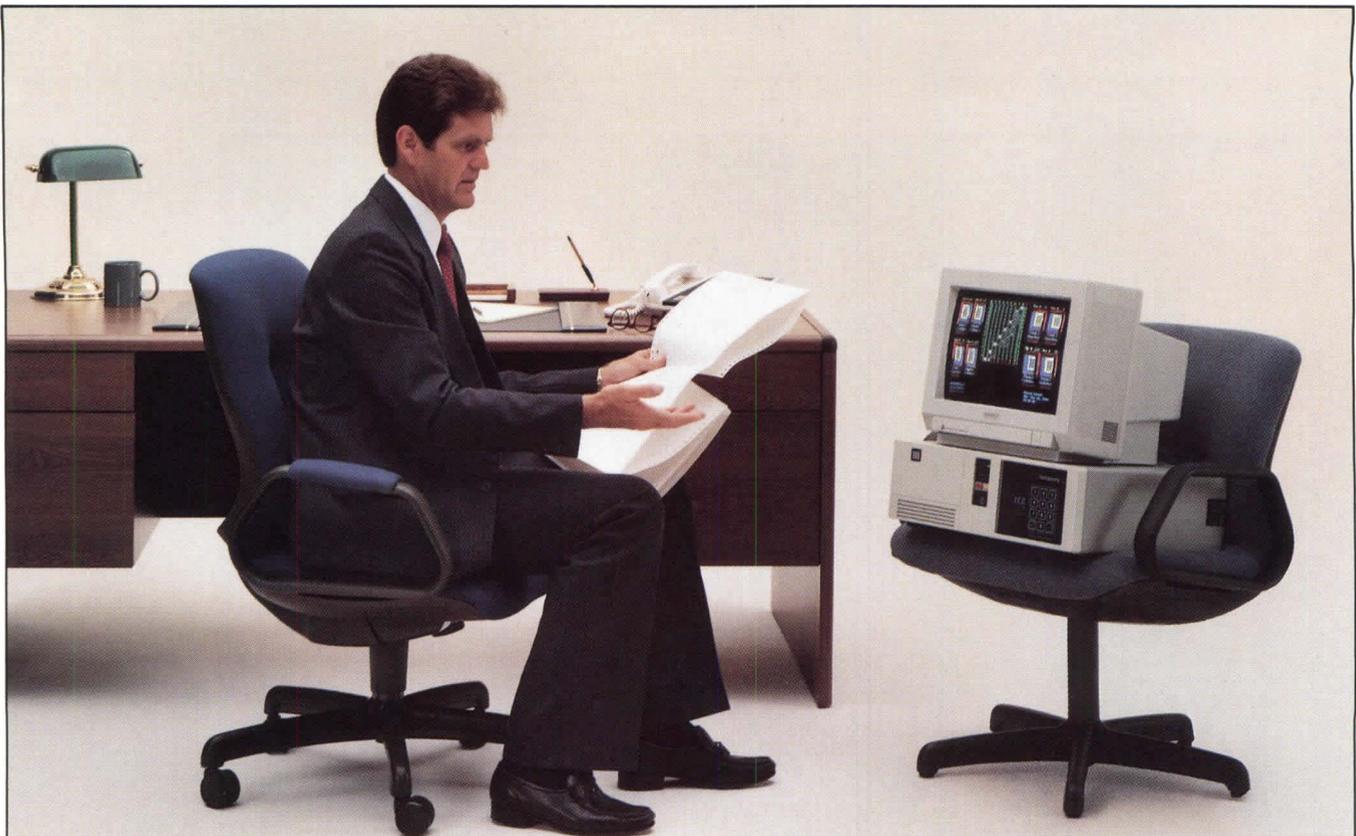
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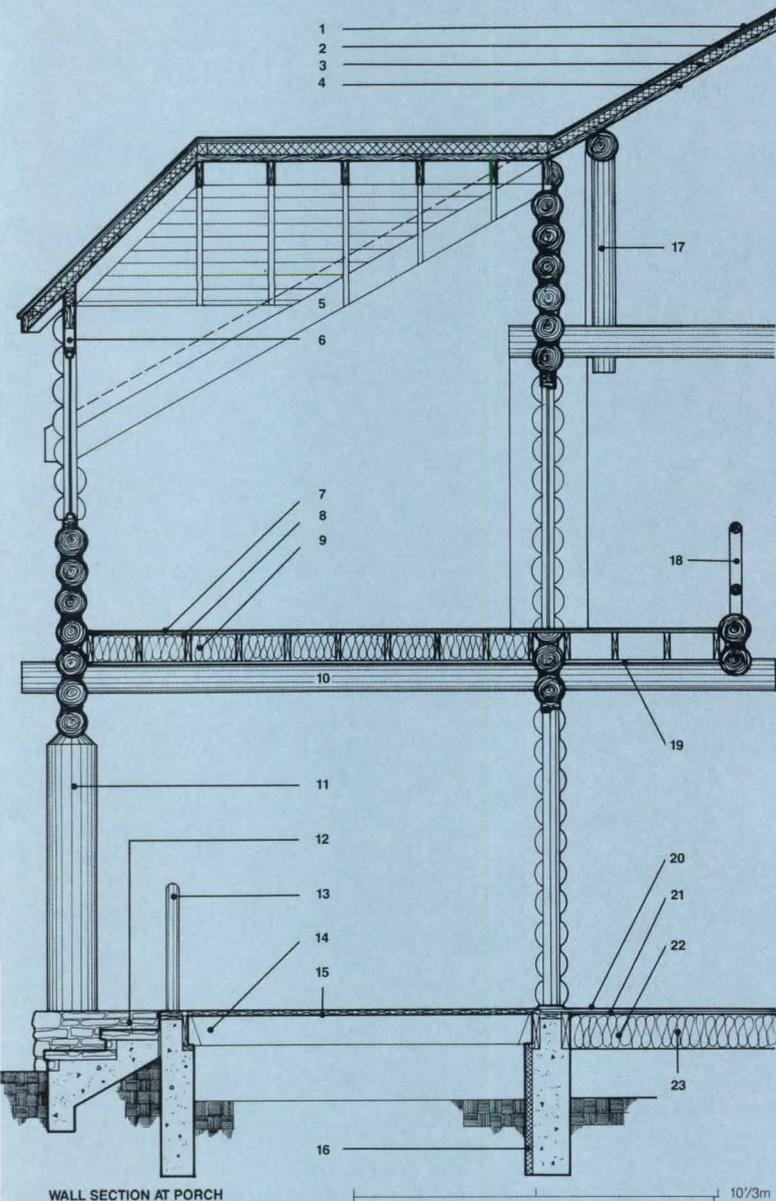
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- 11 18" LOG COLUMN
- 12 INDIGENOUS SANDSTONE STEPS
- 13 LOG RAIL
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- 15 2" x 6" REDWOOD PLANKING
- 16 PERIMETER INSULATION
- 17 LOG TRUSS
- 18 LOG RAILING
- 19 BEADED BOARD PANELING
- 20 3/4" STRIP OAK FLOORING
- 21 3/4" PLYWOOD SUBFLOOR
- 22 2" x 12" JOISTS
- 23 R-30 BATT INSULATION

## Back to the Old Log Cabin

Time was, log buildings were the bailiwick of the humble and the poor. No more. Today, clients who seek a rustic ambience without taking on a lifelong commitment to roughing it are commissioning elaborate log structures, the design of which tests the architect's knowledge of time-worn techniques and modern-day technology.

Denver architect Peter H. Dominick, of Dominick Architects, recently completed a 12-bedroom log hunting lodge in the Colorado Rockies that, he says, called for considerable expertise not normally required.



An exterior view of the Colorado hunting lodge.

Peter Dominick

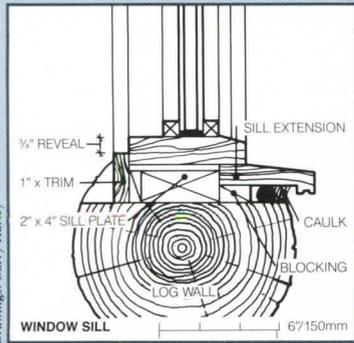
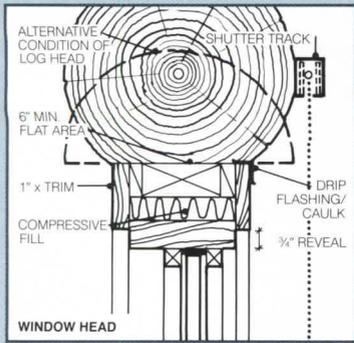
How, for example, to choose the correct log type? Commercially available logs come either machined or handcrafted, Dominick says. But the simple choice of one or the other carries further implications. Machine-tooled logs come in standard dimensions and, because they are limited in length to from 12 to 16 feet, are generally only usable as wall systems. On the other hand, handcrafted logs, available in up to 45-foot lengths, can be developed into complete structural systems. Because they require no splicing, handcrafted logs have the structural integrity to be used in exposed roof systems, which also give interiors a desirable aesthetic.

The inevitable settling of log walls must be factored into the design process, with slip joints (drawing, p. 122) detailed into all doors, windows, and moldings. If green logs are used, settlement of two to four inches can occur in an 8-foot-high wall section. Columns require screw joints at the base, so they can be lowered with the logs. More acceptable are the tolerances expected with standing dead timber, which will settle and crush as much as 3/4 inch per 8 feet of wall height. Shrinkage and crushability are both related to the moisture content of logs, Dominick says. In standing dead timber, that amount is generally 19 percent

or below. "I like to see them between 11 and 14 percent," he says, noting that moisture content is strongly influenced by where and when the logs are harvested.

Checking, or cracking, occurs in every log. In general, the cracking follows a spiral pattern through the log, which makes it difficult to control moisture penetration to the interior of the buildings. If you don't take precautions to protect the wall from standing or blown water, and the checking has not been filled with either chinking or caulking, the water will travel in this spiral and eventually work its way into the interior. Dominick adds an ironic note: "We're very liability-conscious these days, yet the notion that a building has to be leak-proof is somewhat at odds with rustic construction."

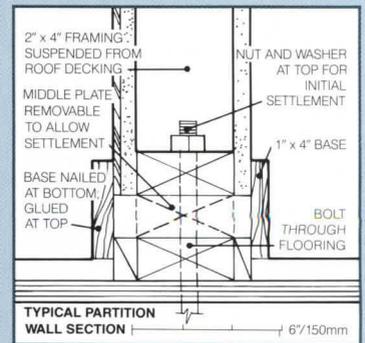
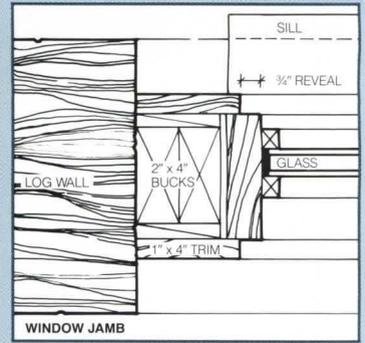
Dominick sounds an alarm on water infiltration, because of his first-hand experience with log construction. "I didn't know enough about what water would do to wall systems. You really need to protect the building, and that gets into the whole maintenance issue." Beware, for example, of lawn sprinklers soaking the walls. In the northwestern U.S., water tends to bead on the sides of buildings, so sealants should be carefully applied (water-based sealants and stains are recommended, he says). In



Drawings: Garry Harley



Galleries leading to the guest bedrooms overlook the living room.



Drawings: Garry Harley

Colorado, for example, you have to deal with extreme ultraviolet rays and their effect on colors. In the Southeast, you have mildew, fungus, and bugs.

Your builder should be familiar with the different species of trees and their properties. (His suppliers preferred the use of lodgepole pine.) Each species carries its own liabilities. For instance, the outer inch of Adirondack white pine tends to be punky and is susceptible to rot, Dominick says. Other problems such as blister rust and pitch pockets must be considered when building with logs. Beautiful exposed purlins in the dining room ceiling are somehow diminished in value if a pitch pocket suddenly bursts and showers pitch down over the table.

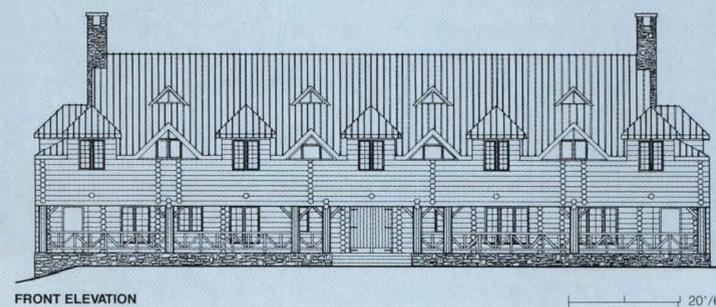
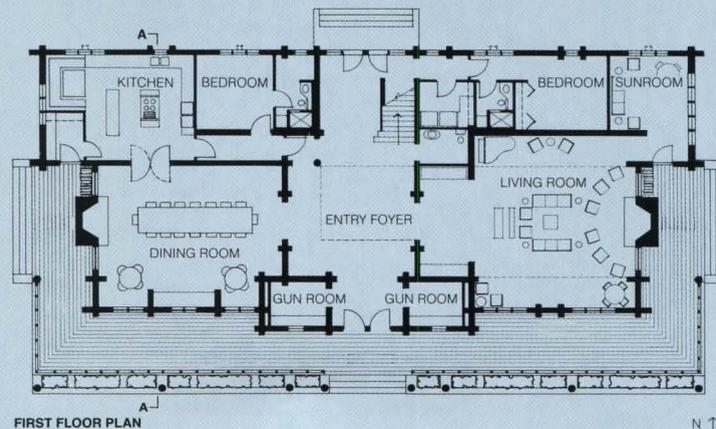
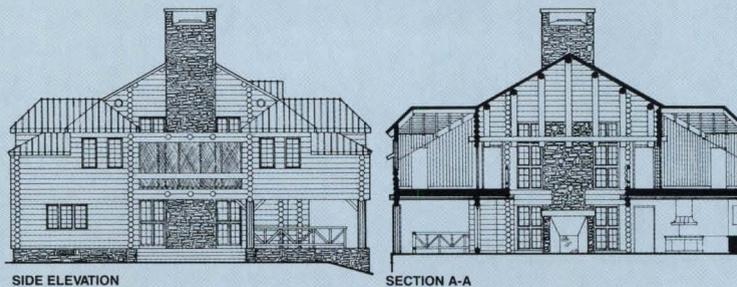
Be conscious, as well, of log sizes; they are not constant in dimension. Most crafting companies talk about an average diameter, meaning that a log of 10-inch average diameter might have a butt of 12 to 13 inches and a tip that is 7 to 8 inches. In construction, that is compensated for by stacking the logs tip-to-butt. "So you have a dynamic look in the building, but it creates a kind of order in the way in which you plan things," Dominick says. "It's not as easy as brick, although I like to call logs a bricklike system."

Structural calculations for log buildings pose a new challenge with each project. Each species has a different fiber strength that needs to be tested. And, if you're in the jurisdiction of a local building department, a

heavy dose of diplomacy may be in order, Dominick says. Here's why: Because of the roundness of logs, the outer edges of the log don't do much in terms of spanning. They just add weight. So if beams have to conform to limitations on bending that building departments look for, then the building can end up looking awfully beefy. "You've really got to work on that," says Dominick. "It's a matter of negotiating, and a matter of having your engineer work with the builder and building department to prove that these things are as stable as they really are."

The technique of choice for constructing log walls can vary according to the client's budget and the architect's insistence on structural purity. Squared logs connected with dove-tail or mortise-and-tenon joints may be beautiful, but they are also expensive. Another alternative, Swedish coping (in which logs are coped on the bottom to rest snugly on the rounded top of the log below), offers a nice wood-to-wood look but has problems with air infiltration. The most common and least expensive method is to use full round logs with saddle notch joints (the method used in this lodge).

Insulation techniques are dependent on the method of log construction chosen. If saddle notches are used, batt insulation should be placed in each joint as the logs are laid. While a common rule of thumb states that each inch of log thickness yields an R-value of 1.2, Dominick says that neglects the advantageous thermal mass of logs. "There



Ken Redding

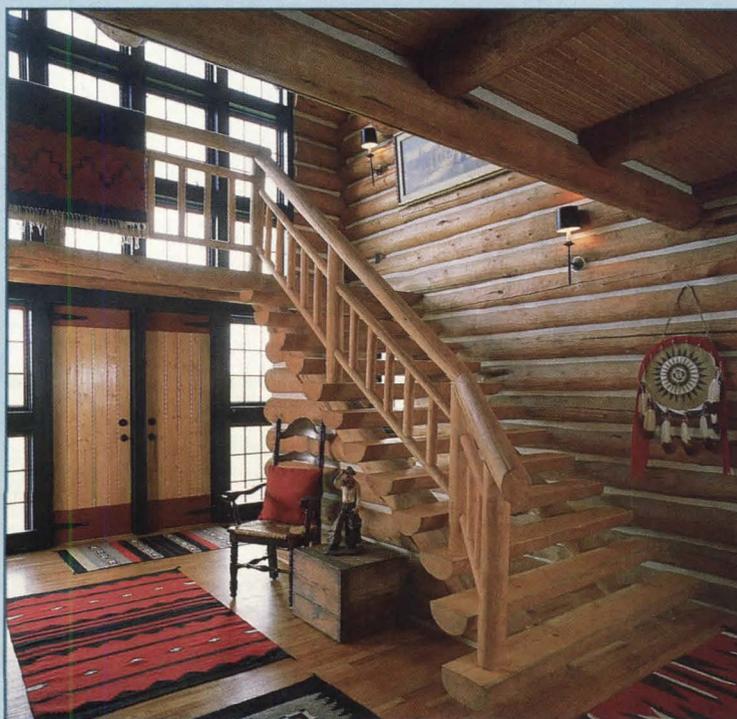


Photos: Ken Redding

*A view of the dining room. Openings are cut after the log walls are erected.*

have been tests on logs which show that they require something like 30 percent less energy to cool and 20 percent less energy to heat than a typical, similarly R-valued wall system."

If the appearance of traditional joinery is desired in the roof structure, Dominick says, then a purlin system is favorable to a truss, which generally involves a number of metal connections. Openings in the walls are cut after walls have been laid, and then only at first to allow crafters to move from inside to out or from room to room. Builders caution to put the roof on a log building and load it before cutting openings; also, make sure the logs are shimmed to keep them from rolling. Finally, the bucks (or rough framing) for one opening should go in before moving to the next opening, because they are major stabilizers in the wall. Walls are further reinforced with foot-long spikes driven through the logs in a regular pattern (their locations are planned to avoid conflict with openings). While many designers choose to design window



*Half-round logs are used as treads in the stair hall.*

bucks with heavy material that caps the ends of the log rounds, his preference is for 2x4 or 2x6 members that leave the round ends exposed.

While it is easy to take for granted the chinking between logs, this area must be treated with care. Old methods applied a mixture of horse hair, sawdust, and cementitious material. Now there are synthetic systems that employ backer rods of polystyrene wedged in the opening from both sides. By trapping air between the two sides of the chinking, these produce a highly insulated wall. Dominick encourages great care in selecting sealants, because some of them keep the chinking from adhering to the logs.

In the end, he says, "the thing to stress is there aren't any standards. There are many ways to build with logs. And that's the great fun of it. Even though you're working with a traditional material and often an assumed traditional imagery, the way in which you put these things together can be very dynamic and very contemporary if you wish."

**Vernon Mays** ■

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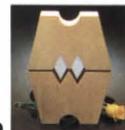
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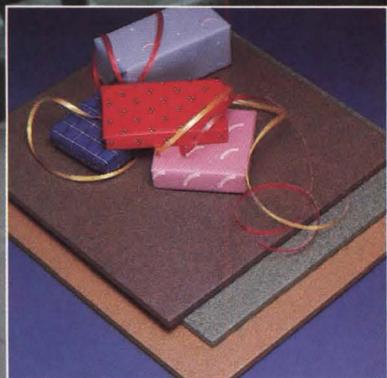


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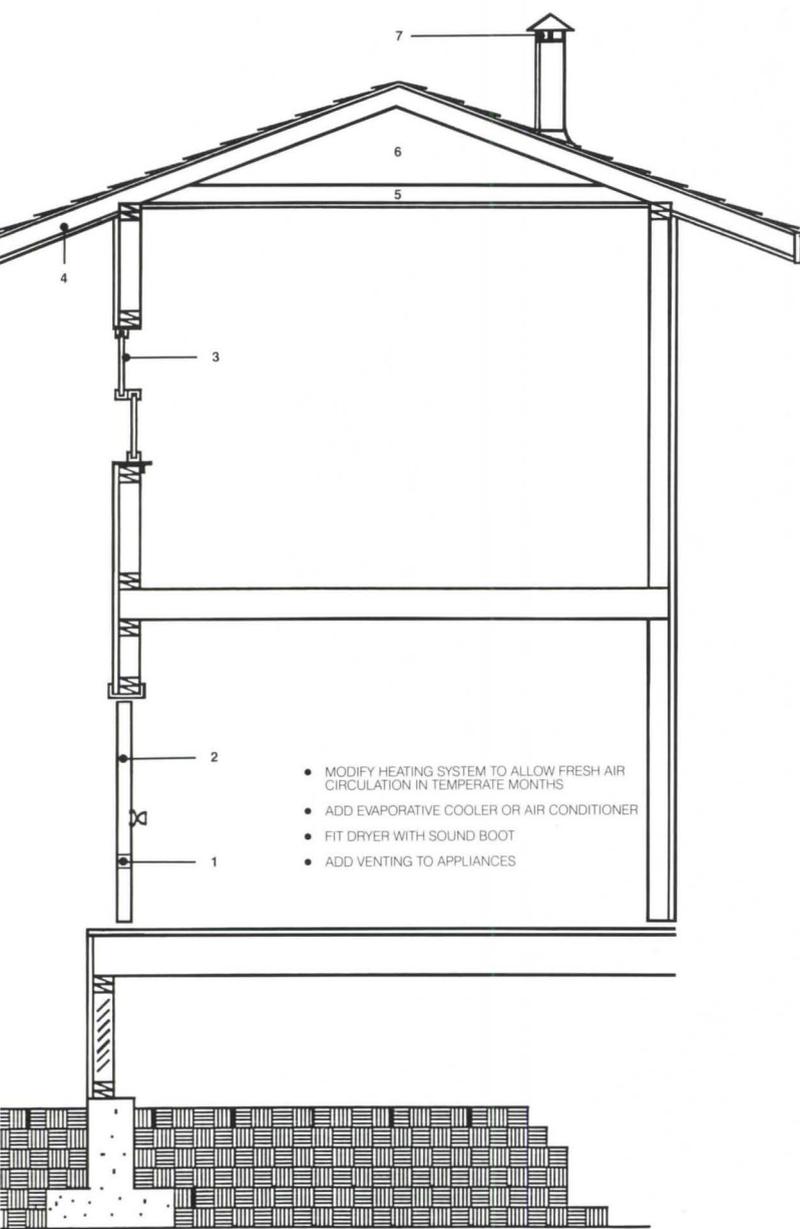
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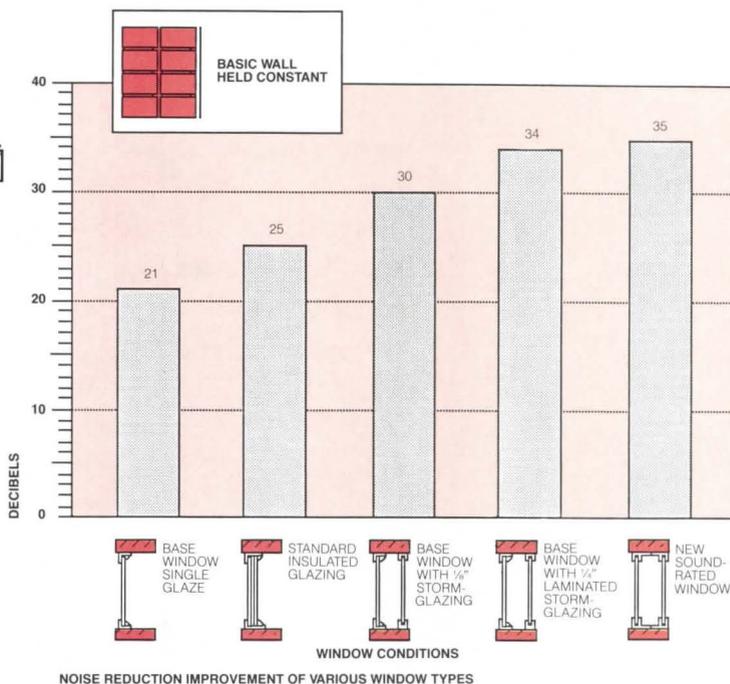
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## Quiet and Comfort is Goal of Project

Noise insulation is a chronic problem in tract houses. When such houses are located under airport flight paths, outside noise is no longer just an annoyance; it threatens property values and makes peace and quiet an elusive goal. But a project under way in the residential areas surrounding Denver's Stapleton Airport is making houses quieter—and more livable—by altering windows and doors, vents, and mechanical and electrical systems.

The Stapleton Noise Insulation Program is a comprehensive plan for insulating 3200 homes, 22 churches, and eight schools,



primarily in the Denver suburb of Aurora. The plan was developed as part of an agreement whereby the airport, in exchange for the right to build a new runway, would pay up to \$7500 to insulate each home in the designated area.

David L. Adams & Associates, a Denver-based acoustical engineering firm, produced a policy manual to guide the alteration of each home in a cost-effective way. The manual relies on data from previous projects and sample surveys they did on two percent of the area homes, predominantly tract houses from the 1950s and 1960s.

Engineer Dana Houglund, head of the program's design team, explains that sound transmission is dominated by the "weakest link" in a building envelope. In other words, if there is a great disparity between the reduction value in a house's walls and its windows, the noise in the house will be greater than if those values were similar. The project's ideal goal is to equalize those values.

The most extensive part of the program is the installation of new custom-made windows to be installed throughout the houses. Where the budget allows, these are double-pane sound-rated units. New windows alone ac-

count for a substantial difference in noise levels (see graph above).

But installing sound-reducing windows is ineffectual if those windows are left open even slightly. A standard single-glazed window, tightly closed, reduces exterior noise by 22.5 decibels; opened only one inch, the reduction plummets to three decibels. Consequently, the project takes into account the need for a compensatory ventilation system; a "fan only" option is added to forced-air heating systems. In homes without air conditioning, evaporative coolers are installed where budget allows. In some cases, this even involves upgrading electrical systems to support the new mechanical equipment.

Highest on the priority list, though normally not the most costly, is repairing uninsulated openings: mail slots, pet doors, milk delivery vents, and roof vents. The manual calls for sealing unnecessary openings (mailboxes are provided to replace mail slots, for example). Essential openings such as roof and dryer vents are fitted with baffles to cut down the noise level, and insulation is installed in attics.

About 1000 houses in the noisiest section of the project area are to be surveyed and improved during the next year.

**Mark Alden Branch**

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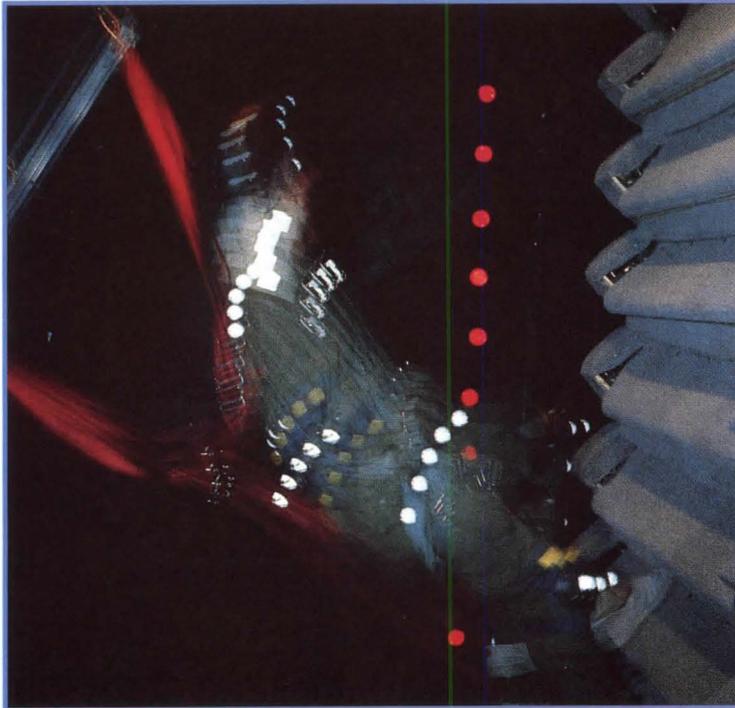
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A stroboscopic image records joint movements as a volunteer falls on the "trick stair."

## MAIN CONDITIONS CAUSING STAIRWAY FALLS

### ASCENDING TYPES

- 1 TOE CATCHES ON NOSING; SUBJECT TRIPS
- 2 TOE SLIPS OFF NOSING
- 3 STAIR FAILS STRUCTURALLY
- 4 SUBJECT OVERSTEPS; TOE LOCKS AGAINST RISER
- 5 SUBJECT UNDERSTEPS; FOOT MISSES TREAD COMPLETELY
- 6 HEEL CATCHES ON NOSING

### DESCENDING TYPES

- 1 HEEL CATCHES ON NOSING
- 2 FOOT SLIPS OFF NOSING
- 3 SUBJECT OVERSTEPS; MISSES STEP COMPLETELY
- 4 SUBJECT UNDERSTEPS; HEEL LOCKS AGAINST RISER
- 5 STAIR FAILS STRUCTURALLY
- 6 UNINTENTIONAL USE; SUBJECT UNAWARE OF PRESENCE OF STEPS

## Volunteers Fall for Safer Stairs

If you have any doubts about the need for safer stairs, just consider these statistics: in 1986 some 4000 people were killed in stair accidents; nearly 800,000 required hospital treatment. While building codes have been revised in recent years to try to reduce these figures, most of the new requirements, such as handrails and larger treads, have been aimed at preventing falls. Now, acknowledging that a certain number of falls will occur despite all precautions, noted stair researcher John Templer, with associate Deborah Hyde, is conducting research at the Georgia Institute of Technology with the goal of making stair falls less dangerous. "People are going to fall on stairs no matter how good the design may be," says Hyde. "If you accept that as a given, then you have to try to make stairs as safe as possible."

In their research, Templer and Hyde have been inspired by the automotive industry, which has also had to work to make inevitable accidents less injuri-

ous. Templer estimates that the automotive industry's protective measures are responsible for saving up to 10,000 lives per year, and that a similar effort devoted to stairs could save as many as 2000. Further, they believe that plastic foams like those used in auto dashboards, gymnasium mats, and playground equipment may be adaptable for use on stairs and handrails. Confirming this belief, though, requires precise study of the mechanics of falling.

The first exercise of their research was to categorize the most frequent types of stairway falls (see table, left) based on existing research, some of it Templer's own. In order to observe a series of subjects in the act of falling, they then developed a "trick stair" with moving parts designed to trigger each type of fall. For example, nosings on the stair can be raised to trip subjects, or treads can be pulled away to cause missteps. Each subject wore a padded suit with reflectors attached to his joints. Stroboscopic photography was then used to document patterns of body movement on film (see photo above). A parachute harness caught the victims before they completed their falls.

In the current stage of research, Templer and Hyde are feeding the "trick stair" data—the paths traced by the reflectors—into a computer model developed by Toby Boulet of the University of Tennessee. The computer will "complete" the falls, that is, project what happens on impact.

Another phase of the project, being conducted by Satyat

Hanagud of Georgia Tech's School of Aerospace Engineering, will test the various thicknesses of plastic foam that Templer and Hyde have identified as being of potential value. "We thought that people in the auto industry and others would all have standards for these materials, but they didn't," said Templer. "So we had to develop our own way of testing materials."

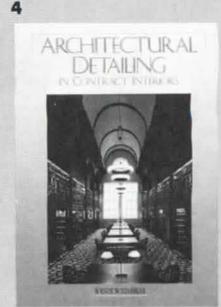
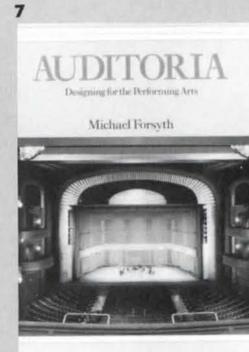
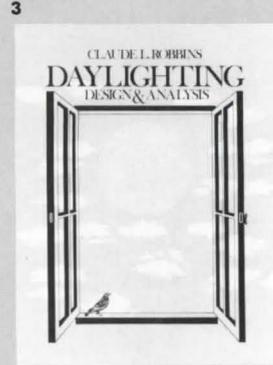
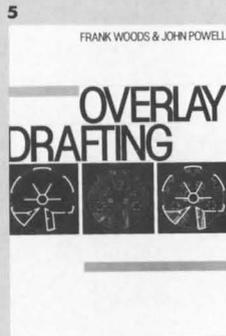
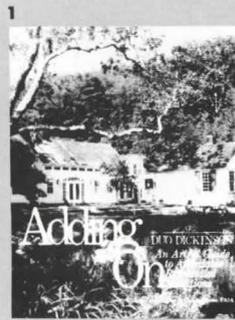
They will combine the results of the materials tests with those of the computer model to determine the appropriate kind of padding system for stairs. Hyde says they are seeking materials that will allow the force of a fall to dissipate, while remaining easy to walk on. "The only time the material would feel soft is when you have a strong force acting on it—like a fall," she says. The researchers hope that, based on their research, such products will be developed and marketed by private industry. "It may well be that we will be able to use some fairly standard products," adds Templer. The research may also be applicable to falls in bathtubs and other areas where falls often occur.

Templer also hopes that the research will result in code changes, although he acknowledges that "the codes always lag a bit behind the research." He believes that codes, which have traditionally been developed through a mixture of experience, common sense, and conventional wisdom, could benefit greatly from hard data like that which they are now developing.

Mark Alden Branch ■

# P/A

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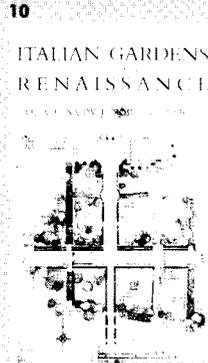
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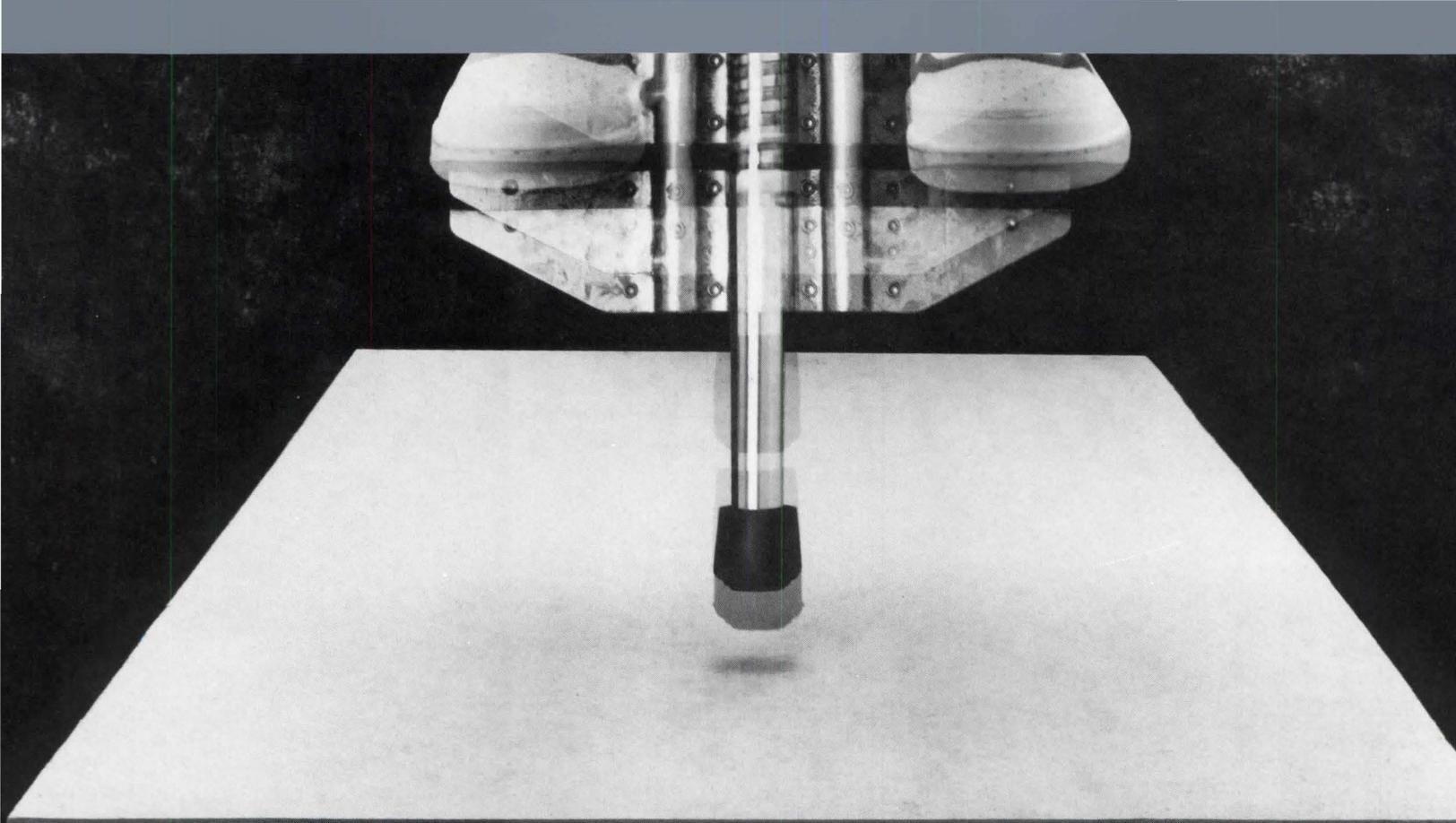
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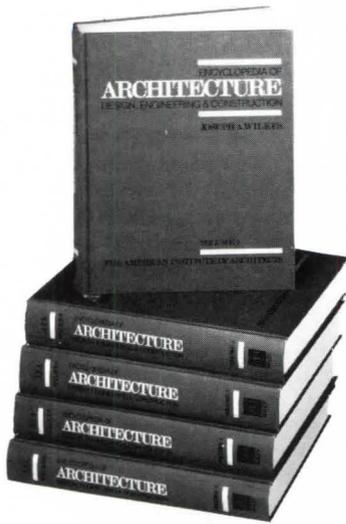
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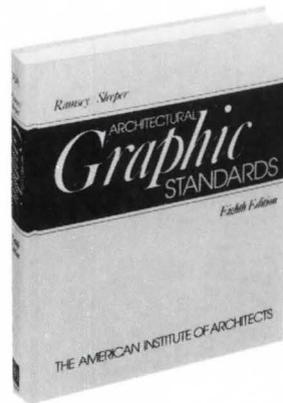


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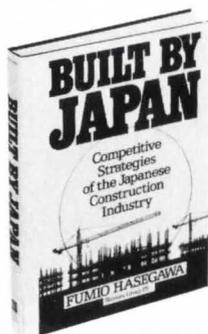
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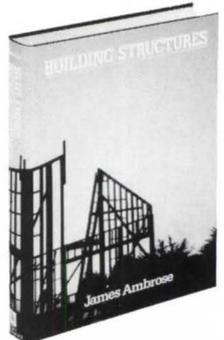


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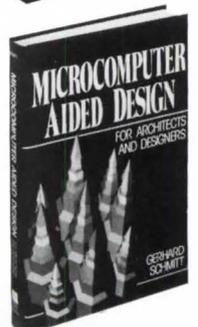
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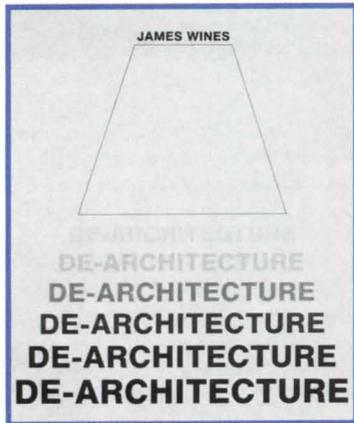
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**De-Architecture** by James Wines. New York, Rizzoli, 1988. 108 pp., illus., \$40.00; paperback, \$25.00.



## Public Art/ Architecture

Although the work of James Wines's firm SITE contains references to aspects of the Deconstructivist style now in vogue, it continues to challenge established notions of what "proper" architecture ought to be, resisting most attempts at codification. While the underlying theme of most Deconstructivist architecture is a reinvigorated Constructivism, SITE's work stands apart, influenced by a mix of pop and Neo-Expressionist art.

*De-Architecture* is a defense of the work of SITE and something of a handbook for the dismantling of the cult of form, which James Wines feels has dominated most of the architecture of the 20th Century. Fundamental to the thesis of the book is a critique and short history of 20th-Century manifestos stressing the predominance of form over ideas. Wines claims that architecture no longer communicates to the public because of the "absence of iconographic potency" in buildings.

In an attempt to alleviate the exhaustion of "the monumental and traditionally symbolic notions of architecture," Wines prescribes "integrating [architecture with] multilevel insights, dialectical ideas, humor, and narrative content." Supported by a portfolio of sympathetic work from other contemporary artists and architects, this book is a valuable contribution to the growing literature of Post-Modern theory inaugurated with Robert Venturi's *Complexity and Contradiction in Architecture*.

Under Wines's leadership, SITE has had ample opportunity to demonstrate its philosophy of a "narrative" architecture, through a variety of commissions ranging from commercial buildings for Best Products Company, Inc., to a number of award-winning environmental sculptures, dwellings, and stores. The firm's methodology is based on the principles of *inclusion*, *inversion*, *indeterminacy*, and *chance*. Inclusion "makes it possible to create a

fusion of building and environment as well as a visual dialogue on such topics as place, time, and society." Inversion suggests that "familiarity on one level can become the key to transformation on another." Indeterminance and chance "suggest that art is best served when disorder, indecision, and ambiguity are at their greatest."

While seemingly close to Venturi's initial thesis, SITE's work differs in the degree to which it continues to subvert given parameters. A comparison of commercial buildings for Best Products Company, Inc., by Venturi, Rauch & Scott Brown and by SITE illuminates this difference. While VRSB decorated the façade with an innovative, if somewhat tame, supergraphic wallpaper, SITE virtually assaulted the building type, demolishing, revealing, cutting, and subverting it in as many ways as opportunities allowed.

Concerned more with image than space creation, the work of SITE might well be considered scenographic. Indeed, Wines stresses at one point in the book that throughout the history of architecture the concept of space was subservient to "more interesting ideas" that provided commentary on existing social conditions. Wines insists, however, that space-making is an important *result* of his desire to create a narrative architecture. He would have us keep in mind those architects for whom the discussion of space is for want of any better ideas.

Perhaps because of this reliance on image, SITE's work is very much at home in an urban setting. SITE's competition entry for The Frankfurt Museum of Modern Art, for instance, celebrates the collision between a triangular site and the predominant rectilinear street grid. The building is sheared off on one side "to allow for the intrusion of the street," providing "a reference to some of the existing wall fragments left around the city from World War II bombings."

The fundamental vitality of  
(continued on page 140)

**The Landmarks of New York** by Barbaralee Diamonstein. New York, Abrams, 1988. 400 pp., illus., \$45. This book catalogs and describes the over 550 landmark buildings and 50 historic districts in New York.

**The American Design Adventure** by Arthur J. Pulos. Cambridge, Mass., MIT Press, 1988. 446 pp., illus., \$50. This book continues the story of American industrial design that Pulos began in *American Design Ethic*, here concentrating on the period from the 1940s to the 1970s.

**Graphic Thinking for Architects and Designers** by Paul Laseau. New York, Van Nostrand Reinhold, 1988. 243 pp., illus., \$29.95. Laseau's thought-provoking guide to problem-solving through freehand drawing links "graphic thinking" to several phases of the design process.

**Idea: The Shaping Force** by Charles Colbert. Metairie, La., Pendaya, 1987. 146 pp., illus., \$60.

Colbert, citing his own work in examples, presents a model for understanding the design process, in which he argues that architects must retain their individuality in a "groupthink" world.

**Fumihiko Maki** by Serge Salat with Francoise Labbe. New York, Rizzoli, 1988. 144 pp., illus., \$25.

A new monograph subtitled "An Aesthetic of Fragmentation" examines Maki's work from 1959 to 1985.

**The Nature of Frank Lloyd Wright** ed. by Carol R. Bolon, Robert S. Nelson, and Linda Seisel. U. of Chicago Press, 1988. 193 pp., illus., \$29.95. The eight papers from a recent Wright symposium presented here all deal with the relationship of Wright's work to the natural environment.

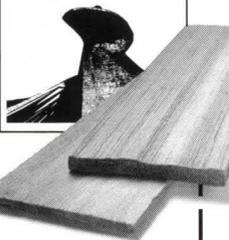
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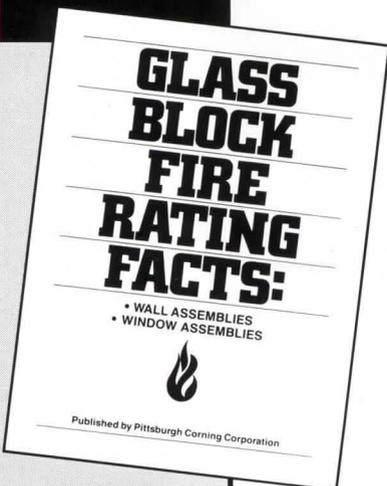
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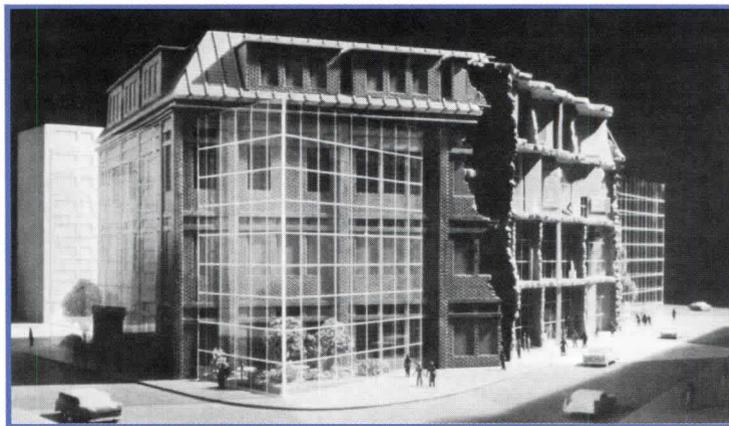
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Frankfurt Museum of Art project, 1983.

(continued from page 139)

the work of SITE lies in its relationship to the ambiguities and subversions of conceptual art. While early Modernists utilized the image of the machine for creating meaning in their work, SITE appropriates the hidden language of a post-Hiroshima culture. SITE's projects poetically mimic "decay." Ignoring Post-Modernism's interest in European precedent, SITE seems to have chosen as inspiration the subconscious iconography of suburbia, an imagery that reveals a fascination with nuclear war. In SITE's 1978 Ghost Parking Lot, 20 automobiles were buried in the parking lot of a local shopping center under a thin sheet of asphalt. A rather poignant result of this project was the request of a woman to bury "her son's beloved Karmann Ghia, which she had kept in her backyard since his death in Vietnam. In a tearful ceremony, the car was laid to rest, complete with a glove-compartment time capsule filled with the young war hero's medals."

In SITE's Highway 86 for the 1986 Vancouver World Exposition, the concept of Ghost Parking Lot was expanded and transformed. An entire "four-lane steel and concrete boulevard . . . rose out of the sea and ran the entire distance of the central processional. . . . The surface of this artery was densely covered with every type of present-day air, land, and sea transportation, all seeming to move in the same direction . . . all monochromed in homogenizing gray to match the concrete paving." The final image reminds one of what a city might look like after a neutron bomb. This "psychological" approach to the making of public art seems particularly at home in the present-day small city or suburb, where the disjunction between the "safe" environment and the images of danger or violence in the art create a sense of place.

Wines desires a complete reintegration of architecture and art. "When we no longer have to categorize architecture as art, it will be art. And when it is art, it will be public art of the most convincing kind." Like the pop art movements of the 1960s and 1970s, SITE embraces Duchamp's concept of the "ready-made" and the commonplace. Like the Neo-Expressionist movements of the 1980s, SITE's work is imbued with the societal anxiety and foreboding conveniently sugar-coated by many contemporary architects.

This book ultimately alludes to the sense of the tragic in the work of SITE, linking it conceptually to Le Corbusier's *Vers Une Architecture* and to Venturi's *Complexity and Contradiction*. Le Corbusier identified the degree to which industrialization would minimize cultural difference. He therefore sought a viable formal language to bridge the gap between the new machine culture and the tradition of architecture. Venturi stressed the degree to which popular culture was distancing itself from the Modernism that so dominated design from the 1920s onwards. He sought an architecture filled with the complexity and contradiction of post-war America.

By revealing the underlying anxiety and decay in our culture, SITE is establishing new possibilities for a meaningful architecture in our time. This is the book's greatest strength and the key to understanding its linkage through time to these other great texts. For if, as Scully wrote in the 1968 edition of *Complexity and Contradiction*, "Venturi . . . does not lie to us concerning what the facts are," then SITE's work stands as a testament to the anguish hidden beneath the cultural wastelands of our suburbs. Their work remains a sign, perhaps ominous, of the instability of our times. **David Kessler** ■  
The author is an architect in New York and was a coeditor of *Precis 6*.

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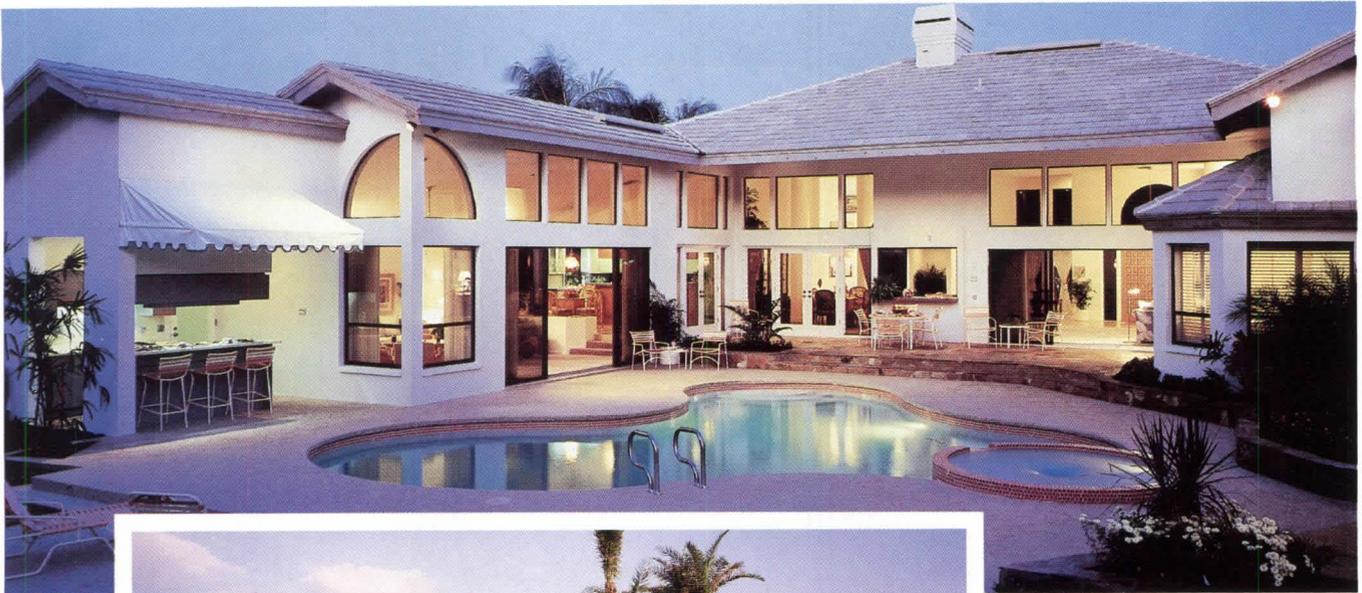


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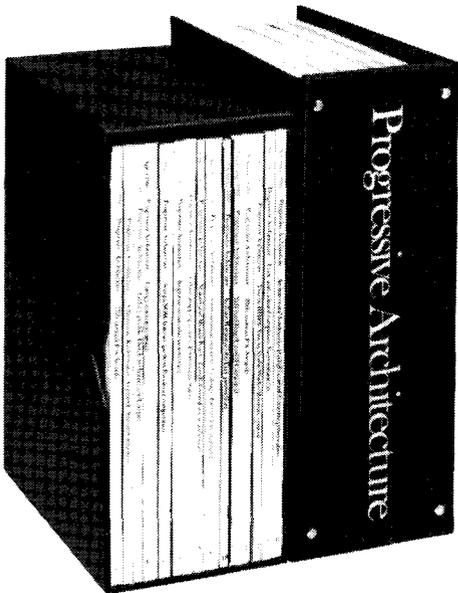


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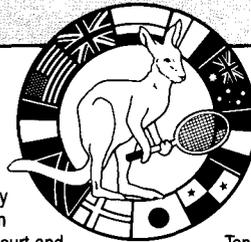
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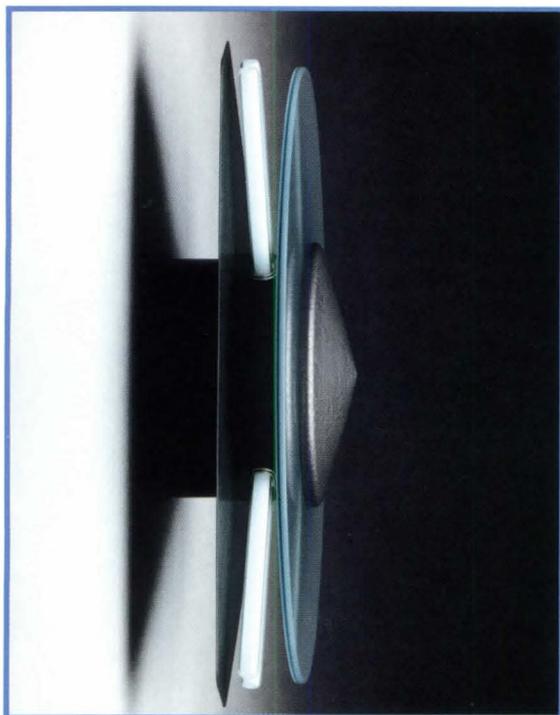
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# New Products and Literature

114 Technics-Related Products  
146 Products and Literature  
continued



**A new wall lamp** called Tricycle uses three fluorescent bulbs, shaped like spokes, radiating from a central hub. A circular etched glass lens diffuses direct light to produce a rotary motion. Two standard colors, pewter and sea-green, are offered in addition to custom colors. Designwerke.

*Circle 121 on reader service card*



**A cotton upholstery textile** features leaves drawn in the style of the School of Paris. A New Leaf, part of the Millennium<sup>™</sup> Collection, has a jacquard damask ground. A velvet print, worsted wools, and new colorations round out the collection. Jack Lenor Larsen.

*Circle 118 on reader service card*



**Glazed ceramic floor tiles** from the Ultra Pavers<sup>®</sup> HT collection are offered in a 12" x 12" size with a modified cushion edge. A range of ten colors includes charcoal gray, denim blue, and several neutral tones.

American Olean Tile.

*Circle 120 on reader service card*



**A polished chrome faucet** that utilizes ceramic disc cartridges is called Crescente and features polished brass accents. The complete line, designed by R.M. Holbrook, includes other lavatory faucets, tub and shower units, bidet fittings, and a selection of wall-mounted accessories. Bathroom Jewelry.

*Circle 119 on reader service card*

be installed directly into lawns and sand for outdoor use. Kartell, U.S.A.

Circle 124 on reader service card

**Granular surfaced flashing**, a SBS modified bitumen material, is now available precut in two sizes, 14" x 48" and 18" x 48". American Roofing Corp.

Circle 125 on reader service card

**Italian lighting designs** for commercial and residential applications are depicted in a new four-color catalog. Product descriptions include color and finish options as well as dimensions and specifying information. Flos Inc.

Circle 201 on reader service card

**Automatic swing door systems** are the subject of a six-page pocket brochure that discusses radio controls, push plates, presence-sensing door controls, and construction details. Typical applications are illustrated. Stanley Magic-Door.

Circle 202 on reader service card



**Ornamental bollards**—lighted or unlighted with linking chains or freestanding—are described and illustrated in a two-color brochure. Six styles of the cast-iron, corrosion-resistant fixtures are featured. Spring City Electrical Manufacturing.

Circle 203 on reader service card

**A home security system** called 2000e displays words rather than numeric codes to spell out important information; whether the system is activated, in what room a window is open, and whether any doors are not properly closed. The system also has a standby power unit. Honeywell.

Circle 126 on reader service card

**A sun screening material** called Thermoscreen is made of thermo-fixed PVC-coated fiberglass. On external installations, the screen blocks rays before they reach the glass. Interior roller, guided, or vertical blinds

can also be fitted with Thermoscreen to protect against heat loss. 3G Mermet Corp.

Circle 127 on reader service card



**Heavy duty seats and tables** designed for use in restaurants, parks, and outdoor eating areas feature a steel construction with a baked epoxy finish. The Fast Food System, manufactured in Italy by Bieffeplast, can be configured for two or four people with single or double access. Gullans International.

Circle 128 on reader service card

**Options for heating commercial and multifamily buildings** are discussed in a six-page, full-color brochure. Piping diagrams, installation photos, energy management control systems, and other pertinent facts are included. Weil-McLain.

Circle 204 on reader service card

**A breathable, acoustic laminate** called Web Core is constructed of vinyl-coated, woven polyester. Ideal for ceiling panel and office partition applications, two models—Glenshire and High Style—are offered in four and eleven colors respectively. GenCorp Polymer Products.

Circle 129 on reader service card

**Outdoor accessories** including bicycle racks, fiberglass planters, benches, and picnic tables are featured in a full-color brochure. Specifications for each item are included along with color and finish options. Handicapped models are also mentioned. Texacraft Site Furnishings.

Circle 205 on reader service card



**Aggregate marble tiles** from the Dal-Marmitec line serve as a versatile surface for both floors and counters. Fabricated from natural marble stones and polyester marble resins, the marble can be specified in custom

colors or as vanity tops or fireplace surrounds. Dal-Tile Corp.

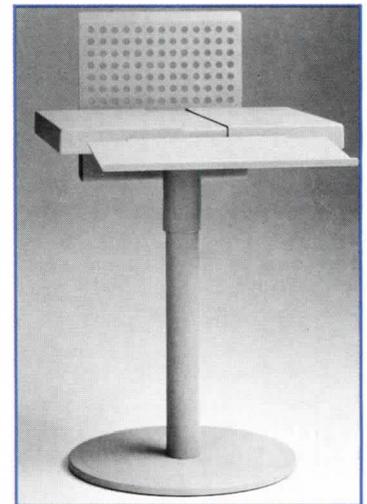
Circle 130 on reader service card

**An interior sign system** consisting of several modular panels and color selections is described in a new brochure. The Interior 30 system is also vandal resistant. Modulex.

Circle 206 on reader service card

**Custom and standard windows**, including the Heritage Series, are illustrated in a full-color catalog. Thermal barrier aluminum construction is used in windows with true divided light fenestration. Custom Window.

Circle 207 on reader service card



**An adjustable computer stand** called I Satelliti and composed of aluminum and steel features a telescopic widening movement. Oven-baked enamel finish options include cloud gray or black satin. Unifor, Inc.

Circle 131 on reader service card

**A concrete and steel floor system** called Hambro® is a composite floor designed for wood-frame construction projects. A color brochure details fire ratings, sound transmission data, and installation instructions. Canam Steel Corp.

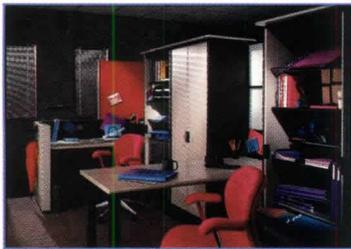
Circle 208 on reader service card

**Cabinet pulls and knobs** made of solid brass or aluminum are highlighted in a new condensed catalog. Designs made of Porcelume, a porcelainlike material fused to aluminum at high temperatures to form a durable alternative to plastic or nylon, are shown in white, almond, brown, and black. Colonial Bronze Co.

Circle 209 on reader service card

(continued on page 148)

(continued from page 145)



**Support cabinets** from the Ethospace® Interiors line of office systems furniture offer movable interior components such as file drawers, display shelves, and wire bins. The units can be ordered separately or in "kits." Herman Miller, Inc.

Circle 122 on reader service card

**A color specifying system** for architects is designed to make interior color selection easier. More than 600 new colors are part of the 840 total number featured in the ColorAnswers® system. Sherwin-Williams Co.

Circle 123 on reader service card

**Rubber floor and stair tread systems** are illustrated in a 16-page color brochure that also discusses fire safety and recommended adhesives. Marbleized or plain raised surface designs are shown in decorator colors. Musson Rubber Co.

Circle 200 on reader service card



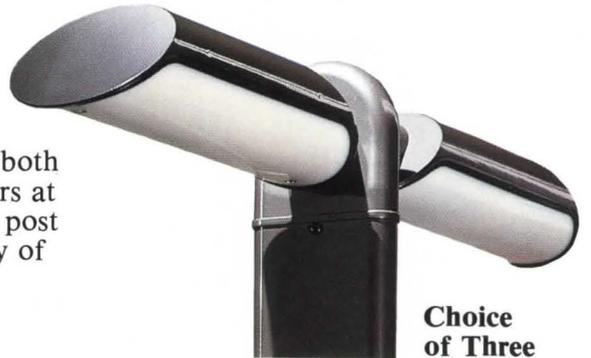
**A wastepaper basket/ashtray system** for public spaces is constructed of a large, polypropylene cone. The flame-retardant system comes with several rings; one facilitates a liner, another serves as an ashtray, while a third comes with a lid. Without the black circular base, the units can

# Progress Ovalla® Lighting Designed to be designed

**The Innovative Ovalla Lighting System.** It builds with components to afford a designer versatility for indoor and outdoor applications. Contemporary and functional, Ovalla lighting is designed to be designed.



**Pedestal, Bollard or Post Mountings.** Three slim-profile, extruded aluminum uprights enable use both indoors and outdoors at pedestal, bollard or post heights...in a variety of one and two-light configurations.



**Choice of Three Finishes.**

White, black or bronze. Ovalla components are electrostatically powder-painted and oven-baked for a durable, chip-resistant finish which resists even the corrosive effects of seaside salt air.

**The Ovalla Look.** Each durable, clean-lined cast aluminum light pod is sleek, smooth and substantial. The diffuser is shatter-resistant, UV stabilized polycarbonate.

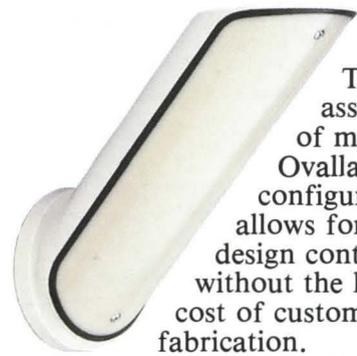
**On Walls and Ceilings.** Modular light pods mount in many one and two-light combinations on walls and ceilings, indoors and outdoors.



**UL Listed for Wet Locations.** Extend Ovalla's design continuity from exterior walkways, driveways, landscapes, steps and parking areas to corridors and public spaces inside hotels, stores, apartments, restaurants, office buildings, and malls.

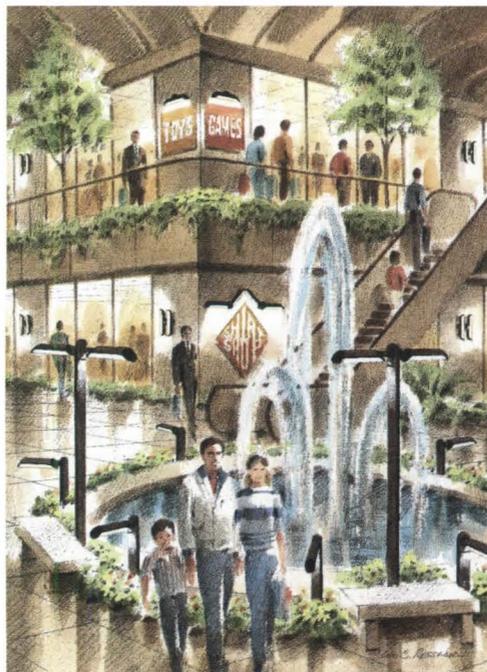


**Design Continuity.** The wide assortment of modular Ovalla configurations allows for unique design continuity without the high cost of custom fabrication.

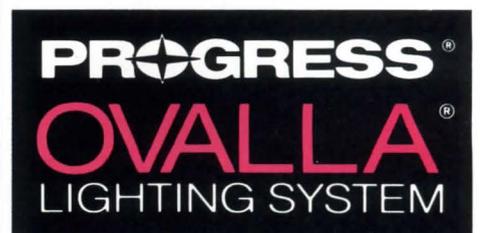


**Incandescent or Fluorescent.** Each of the Ovalla light pods is available as a 75W incandescent or as a 2-lamp 13W compact fluorescent (PL13).

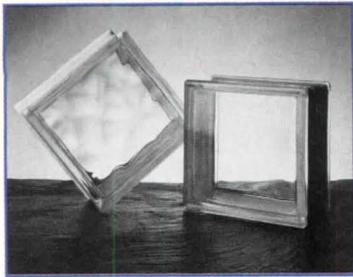
**Horizontal, Vertical or Angled Mountings.** Three modular light pods offer a variety of different mounting options for a wide range of horizontal, vertical and 45° angle configurations.



**For More Information:** Complete specifications for Progress Ovalla lighting are available from local distributors or Progress Lighting, Box 12701, Phila. PA 19134.



(continued from page 146)



**Glass blocks** called Firestop have been classified by UL for 60- or 90-minute fire ratings in protected openings up to 100 square feet in area. Additional safety can be provided for specific applications. Two sizes, 8" x 8" and 6" x 6", are offered. Glashaus.

Circle 132 on reader service card

**Prefabricated toilet and shower compartments** called Marblstal® are illustrated in a new brochure, which discusses the durability of marble. Matching hardware is also pictured. Georgia Marble.

Circle 210 on reader service card

**Multicolor pavers** of man-made cast stone feature an oriental design. The pavers can be manufactured in any shape or texture. W.N. Russell and Co.

Circle 133 on reader service card

**Landscape lighting** featuring polycube and hexagon globes, interchangeable components, and a variety of design styles are profiled in a full-color catalog. Installation photos highlight the line of outdoor decorative luminaires. Lumec.

Circle 211 on reader service card

**Slip-resistant flooring** is the subject of a new 12-page catalog. Mebac surfaces, aluminum oxide grit particles bonded with molten metal to a metal substrate, are discussed in detail. IKG Industries.

Circle 212 on reader service card

**Roofing system installations** are explained in a 28-page brochure. Specifications and installation procedures for coal tar roofing and waterproofing systems are presented. Koppers.

Circle 213 on reader service card

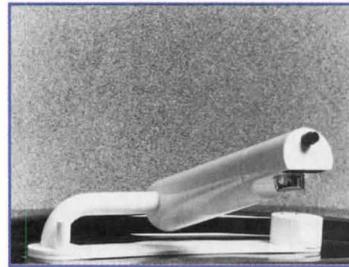
**A LED message board** called Lobby Master is encased in a greylite tempered glass. Each line accommodates 24-30 characters, which are displayed in red, green, or yellow. Several mounting options can be specified.

Silent Sound Systems, Inc.

Circle 134 on reader service card

**New outdoor lighting** combines a precision optical system with a high pressure sodium or metal halide lamp for efficiencies up to 80 percent. The MultiKat® lighting fixtures use narrow to wide lenses and rectangular or circular reflectors. Sylvania.

Circle 135 on reader service card



**Automatic faucets** utilize infrared sensing technology to control water flow. Ideal for handicap facilities and many public areas, the Contempra line of brass faucets offers several configurations. Liparus Assocs.

Circle 136 on reader service card

**Construction information** for southern pine is included in a new 24-page brochure that details lumber standards, sizes, grade descriptions, design values, and lumber preservatives. Architectural specifications

are also discussed. Southern Pine Marketing Council.

Circle 214 on reader service card

**The structural glazing system** called Duratec® and its components are the subject of a new information packet. The system provides a metal and glass package for low- to mid-rise construction, and for design wind loads up to 40 pounds per square foot. Spectrum Glass Products.

Circle 215 on reader service card

**Fabric blinds** that combine texture, color, and translucency are called Fabrette®. Two texture options—a woven look and a multitextured weave—offer coordinating room darkening slots for added privacy. Hunter Douglas.

Circle 137 on reader service card

**New floodlights** accommodating 250- and 400-watt metal halide lamps have been added to the Warrior Floodlights Collection. Offered with either galvanized steel or cast aluminum mounting assemblies, the lights are ideal for rail yards, storage sites, marinas, and other service area applications. McGraw-Edison.

Circle 138 on reader service card

(continued on page 150)

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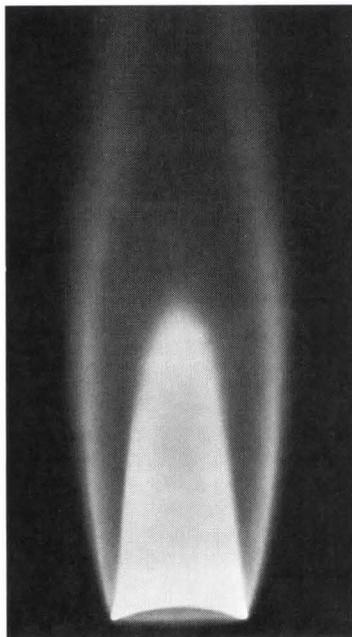
Advanced natural gas technologies  
will cut commercial cooling costs.

**Reducing the high cost of refrigeration and air conditioning in supermarkets.** Intensive energy eaters, supermarkets use almost 50% of that energy for refrigeration and another 10%–15% for air-conditioning. An innovative gas-fired dehumidifier/cooling system called SuperAire®, developed by Cargocaire Engineering Corporation, can save the average supermarket 15%–20% in annual energy costs. In addition to lowering costs the system handles dehumidification problems much more efficiently than conventional air conditioning. Thirteen supermarket chains in nine states have installed SuperAire units.



**Cogeneration for cooling plus.** Already on the market are several packaged gas cogeneration systems designed to provide cooling, heating, hot water and electricity for hospitals, hotels, restaurants and other commercial operations.

These new gas cooling technologies have become available through gas industry research and development funded by the Gas Research Institute. For more information about GRI projects, write: Mr. John J. Cuttica, Vice President, Research & Development, Gas Research Institute, Dept. CPA, 8600 West Bryn Mawr Avenue, Chicago, IL 60631. Or call your local gas company to learn how gas cooling can cut your operating costs.



## Beating high electric cooling

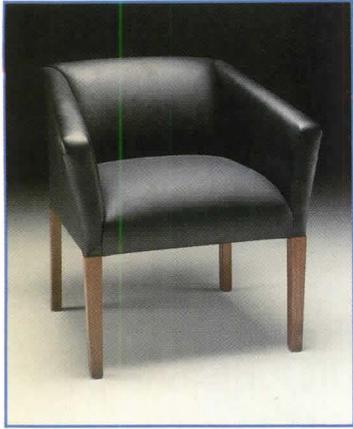
**rates.** Higher summer electric rates and demand charges have driven up the cost of air conditioning multi-story buildings. New super-efficient gas driven chiller systems now being developed offer a cost cutting alternative.

One example is a 150-ton packaged system being developed by Thermo Electron Corporation. It and similar systems will reduce the cost premium for gas cooling equipment by 75%. And improve cooling performance by 60% or more over gas chillers now on the market. Pay-back within three years is expected in most areas.

Gas. America's best energy value.

© 1987 American Gas Association

(continued from page 148)



**A new guest chair** called Camden rests on handcrafted oak or walnut legs and stands 30½ inches tall. High- and low-back office swivel chairs complement the collection. Taylor Chair Co.  
*Circle 139 on reader service card*

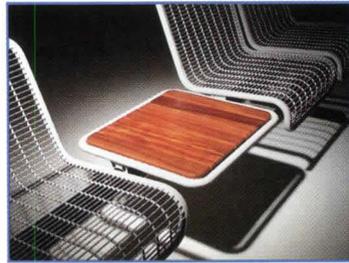
**A new electro-acoustical control** employs a patented system of analog signal processing to reproduce multiple sound reflections in a natural way. Activated at the touch of a button, the Acoustical Control System enhances interior acoustics in theaters, churches, lecture halls, and concert spaces. Decoustics.  
*Circle 140 on reader service card*

**A new traction system** for door saddles and stair-nosing designs is called Traction Tread®. Profiled aluminum saddle grooves are fitted with hard-wearing rubber inserts. Two- to six-inch widths are available. Zero International.  
*Circle 141 on reader service card*

**An attached table and seating unit** for public spaces offers fiberglass or steelhead tops. Seats, which are attached to the Carousel Table's frame, come in a metal grid or a perforated metal panel. Landscape Forms, Inc.  
*Circle 142 on reader service card*

**Insulating material** made up of hollow ceramic beads refracts and dissipates heat away from surfaces, lowering roof surface temperatures up to 50 degrees. Thermo-Shield also forms a seamless monolithic seal to decrease air infiltration. Great Lakes Protective Coatings.  
*Circle 144 on reader service card*

**Decorative poles** for outdoor architectural lighting are profiled in a new brochure. Ranging in height from 8 to 60 feet, the poles are constructed of aluminum, steel, wood, and fiberglass in an array of designs. Emco.  
*Circle 216 on reader service card*

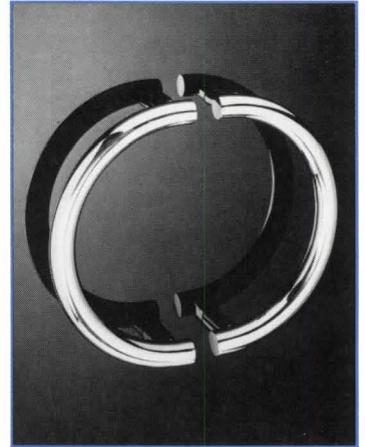


**Metal seating units** constructed of wire grid or perforated metal are offered in one- to four-seat units in both straight or radial segments, with or without backs. Forms + Surfaces.  
*Circle 232 on reader service card*

**Outdoor lighting** from the Conterra Line is constructed of cast aluminum and protected with a polyester-based coating that is bonded to the base metal. The single-piece lens, a clear tint polycarbonate material, is highly resistant to breakage. Noral Lighting.  
*Circle 145 on reader service card*

**Hangers** for cubicle storage needs will stay in place on any flat surface without marring or marking. The Anywhere enameled steel hanger may be specified in six colors. Vogel Peterson.  
*Circle 143 on reader service card*

**Custom metal work** featuring architectural and ornamental designs is illustrated in a new 24-page color brochure. Restoration and other projects requiring detailed craftsmanship are profiled. Carlson Metalcraft Co.  
*Circle 217 on reader service card*



**A spherical door pull**, part of the HG-151 series, is available in stainless steel, brass, and bronze with polished or satin finishes. The center-to-center dimension measures 12 inches with a three-inch projection from the door. Hiawatha, Inc.  
*Circle 146 on reader service card*  
*(continued on page 153)*

## What do this Japanese restaurant, furniture store, and office building have in common?

Top — Kyoto Steak House — and right — Barr Office Building, both by Rossen/Neumann Associates, Southfield, Mich. Lower left — Art Van Furniture by Robert L. Ziegelman/Architects, Birmingham, Mich.



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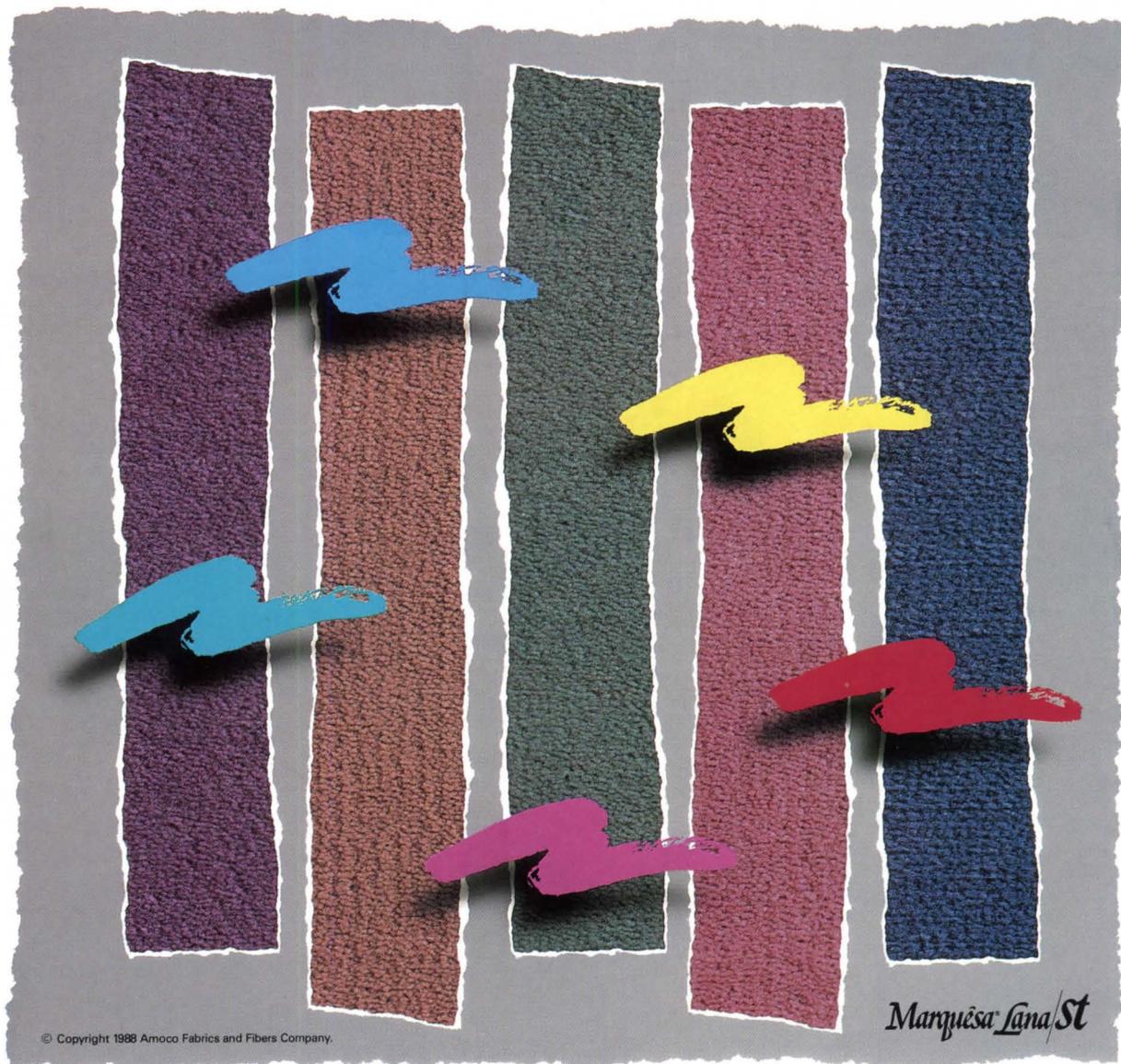
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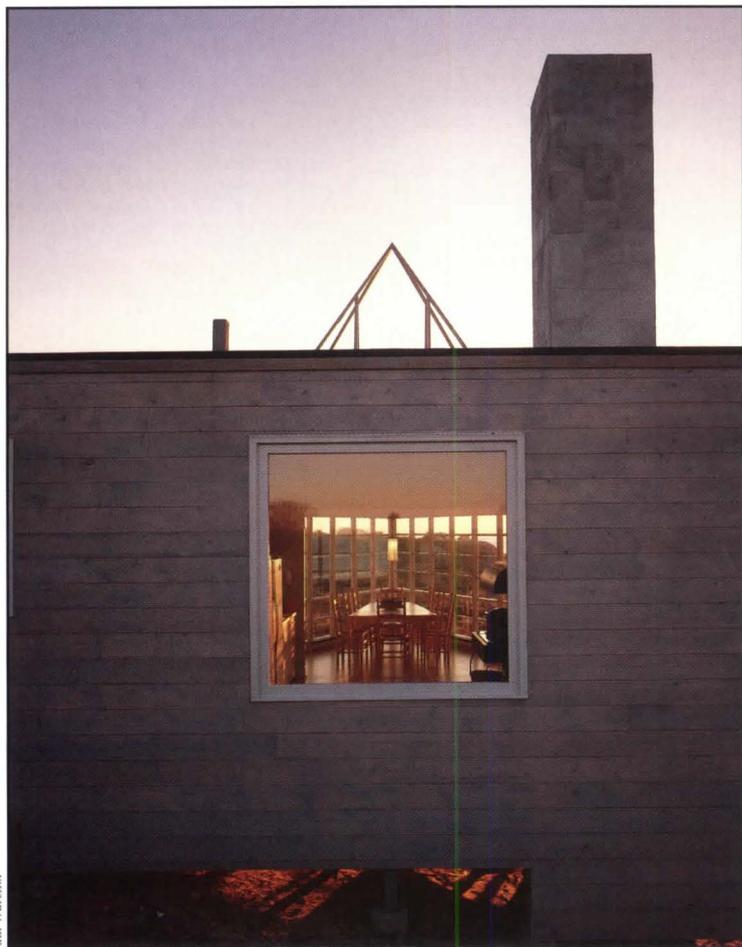
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*The Berkowitz-Odgis House on Martha's Vineyard by Steven Holl Architects.*

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The single-family house has always been a place where new design ideas can be tried and new design methods explored. In recognition of that, the December issue of P/A will examine the design process as well as the final form of nine innovative new houses. They range in location from Florida to Washington, California to Massachusetts. And they vary in scope, from a rambling, metal-clad house of a movie star and director to a tiny, wood-framed cabin in the north woods. What they share are clear ideas, consistently developed, and carefully documented in the December issue.

## Future Issues

The January issue will cover the results of the 36th Annual P/A Awards Program, showing work at the leading edge of architectural design, planning, and research. February will contain a number of major new structures, and March will feature a profile of a leading educator and practitioner.

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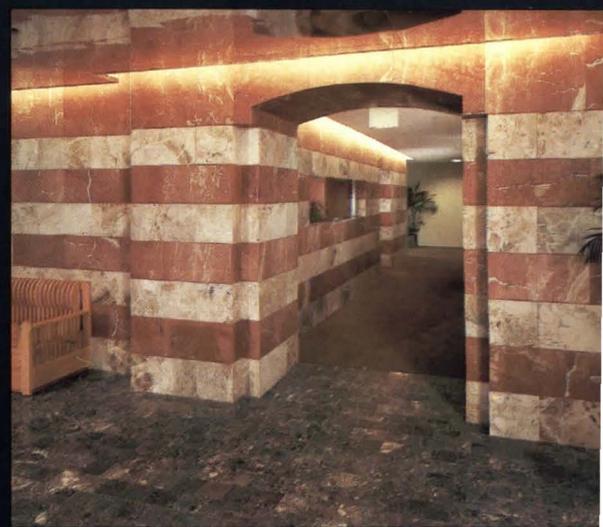
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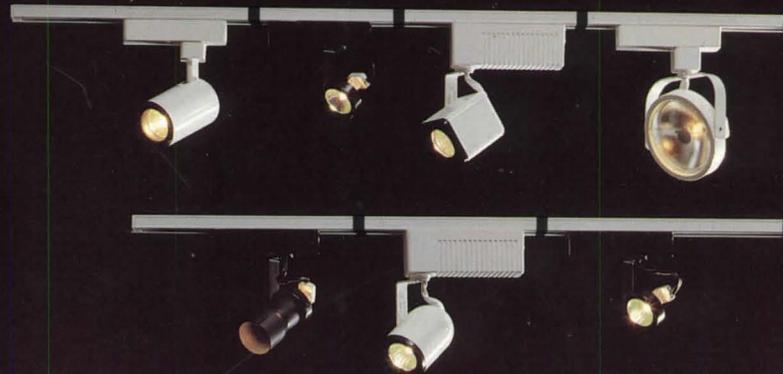
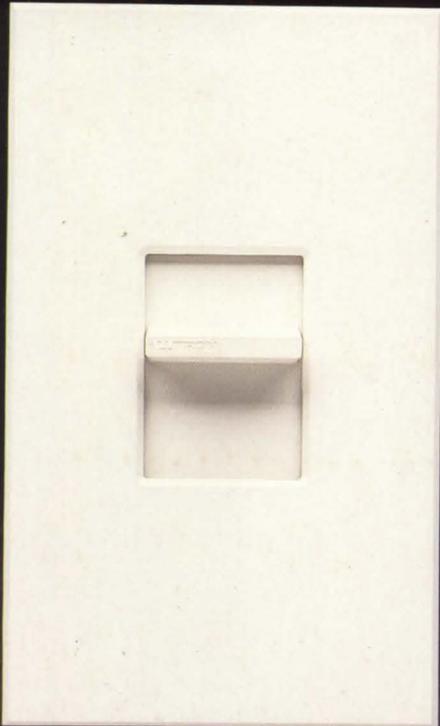
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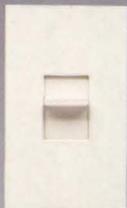
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