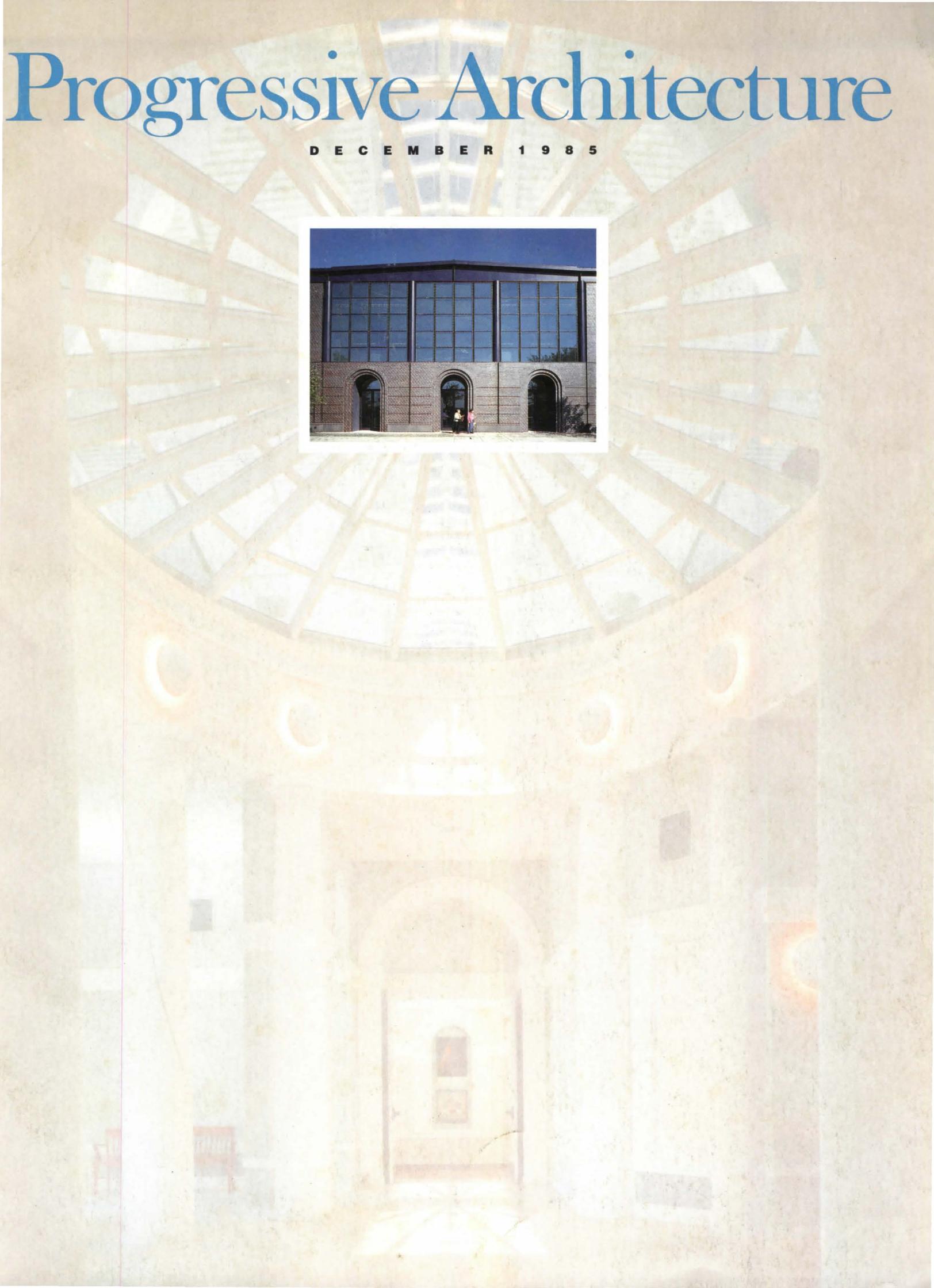


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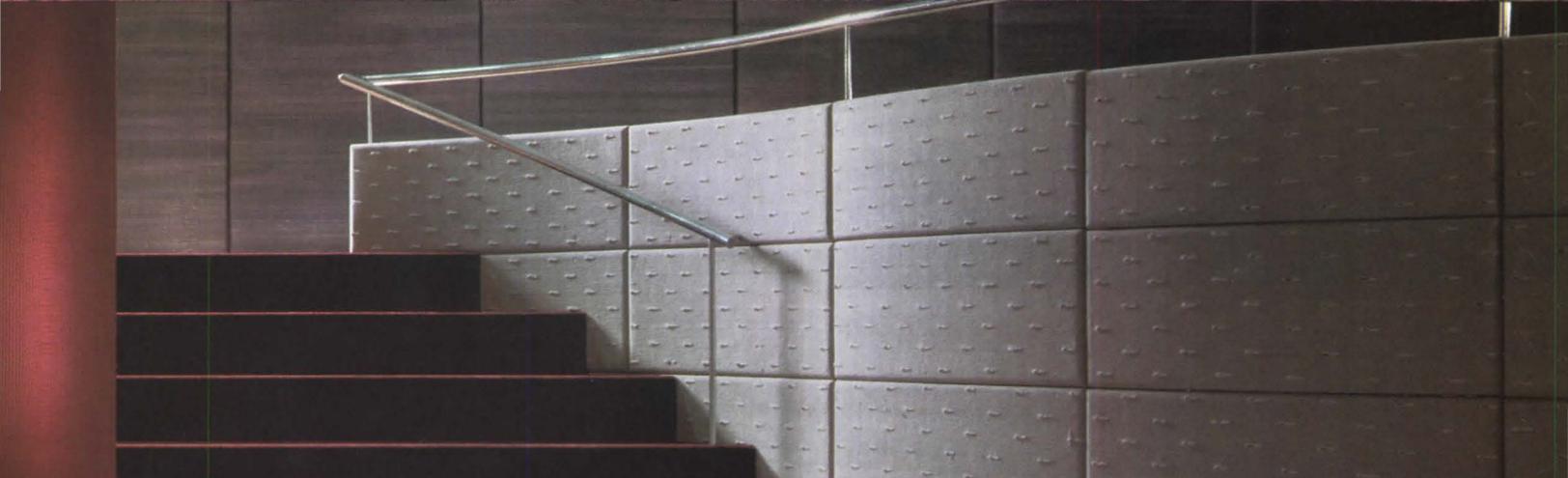


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Progressive Architecture

DECEMBER 1985

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Progressive Architecture (ISSN

0033-0752) is published

monthly by Reinhold

Publishing, A Division of

Penton/IPC, P.O. Box 95759,

Cleveland, OH 44101; Philip H.

Hubbard, Jr., President; Harry

I. Martin, Robert J. Osborn,

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CT 06904 (203-348-7531).

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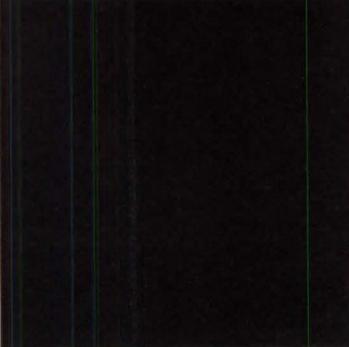
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Architects: What Kind of People?

OBVIOUSLY, a great variety of individuals become architects. Yet most of us develop certain expectations about architectural professionals, based on experience. There are some insightful books about architects as a group, but my observations here are drawn from decades of working with this profession.

I recall my shock the one time when I entered an architect's office that was adorned with the heads of animals shot on safari. While big game hunting is an unusual pursuit for Americans generally, for an architect it seems unthinkable. Most other architects I know take up hobbies such as sailing or tennis or art collecting, which can be pursued near home and on weekends. Longer periods away are typically spent doing things actually related to architecture: building or fixing up second homes; traveling to see other architecture.

Architecture tends, in fact, to consume an inordinate proportion of its practitioners' total waking hours. Nonprofessional activities compete for the few remaining hours and are at the mercy of office crises. Somehow, for architects, the masochistic work habits of professional school are carried over into later life. Lawyers usually learn to set a high value on their hours, but architects are conditioned to squander them at relatively low dollar rates.

There is an old saying that nobody goes into architecture for the money. Although some architects end up with high incomes (*P/A*, July 1985, p. 56), it is not very likely, and the best-paid are still vulnerable to the violent economic cycles of construction. This well-known situation eliminates from the profession at the outset most of those whose main ambition is to make money, but it also discourages disadvantaged students. If poor kids can somehow manage the number of years of schooling required for architecture,

they are usually drawn to professions with more certain economic rewards or social contributions—or both—such as law or medicine. So architects tend to come from comfortable backgrounds, and family money can be a significant factor again later, permitting some architects to start early in their own practice (with or without a commission to design a house for Mom and Dad). It is another old saying in the profession that those without family money would be wise to marry into it, so possessing the charm to win a rich spouse can be an effective alternative to personal means.

Certain intellectual attributes are, of course, advantageous for a career in architecture: a good sense of spatial relations, an ability to conceptualize a whole from parts, a "good eye" for visual distinctions, and enough aptitude for math and science to master elementary engineering. The guidance process in secondary schools traditionally identifies math and art skills as prerequisites for architecture—and that is reasonable, but it simultaneously steers students with the best verbal skills away from architecture, leaving the profession short of people who are truly literate or well educated in the humanities and social sciences.

Another area of weakness among architects involves interpersonal skills. Although the ability to persuade clients and motivate co-workers is clearly valuable in practice, the profession attracts many people who do their best at individual creative effort. The typical design school jury helps develop persuasive skills—for those with an aptitude—but many students exhaust themselves on the presentation charrette and are virtually inarticulate in defending it. In school and later, many of those in the profession seem to expect good work to speak for itself.

Any firm that succeeds usually depends on one principal with strong persuasive and or-

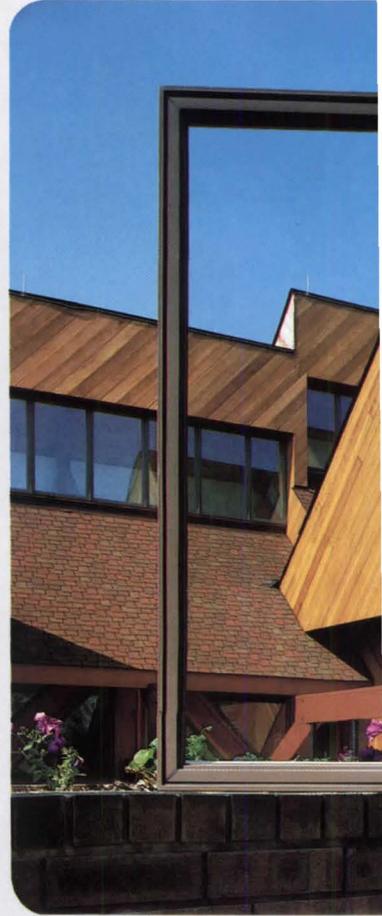
ganizational skills who has somehow slipped through the selection and education process—but that person will rarely get the kind of recognition that architects reserve for the star designer. Where these "business" partners can shine is in professional organizations, where they typically assume the leadership roles.

Although most architects are engaged in private practice, they tend more than other private entrepreneurs to favor government intervention in the economy. Obviously, programs of public works or subsidies for building serve architects' interests. On a deeper level, however, architects are committed to planning things, rather than leaving the outcome to market forces—which, for most of them, are mysterious and not to be trusted. And even though architects may chafe at numerous codes and regulations, they know that, fundamentally, their own stature as professionals rests on licensing laws.

Finally, all architects—no matter how normal or eccentric they may otherwise be—are affected by membership in a profession that is not generally understood by the public. Even clients who work closely with architects typically view design processes as unfathomable. When your own neighbors, relatives, and collaborators cannot seem to grasp just what you *do* for a living, it's hard not to feel at least a bit alien. ■

John Morris Dipert

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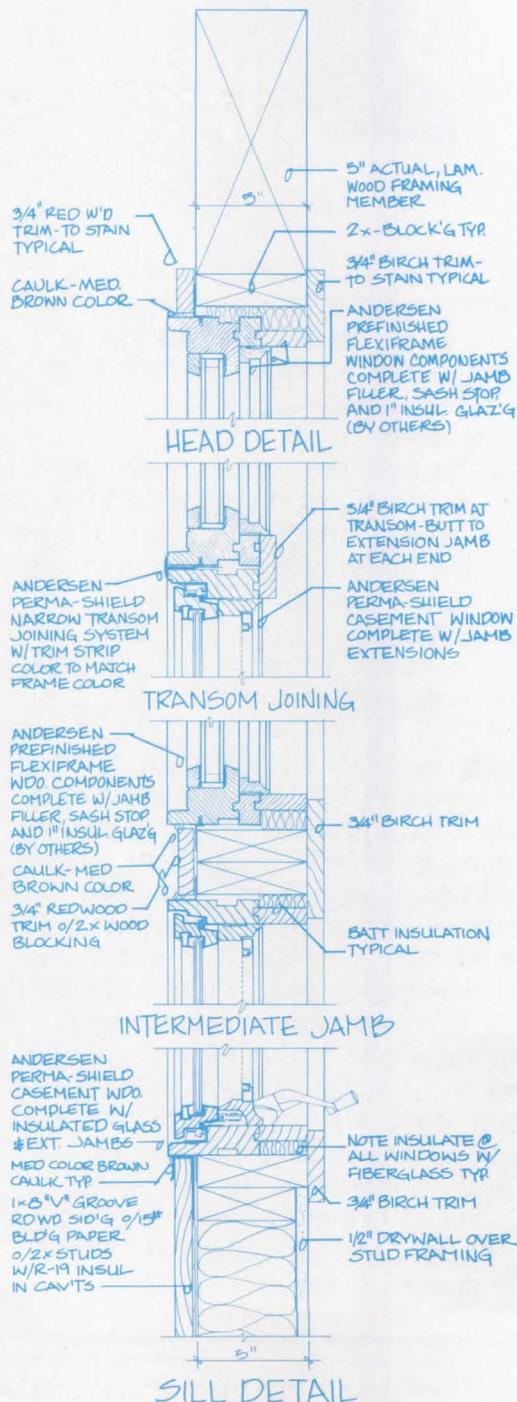
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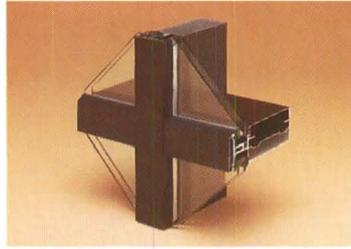
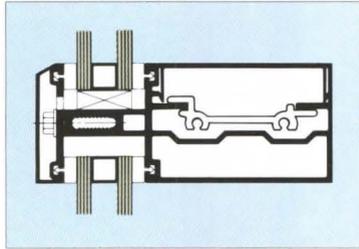
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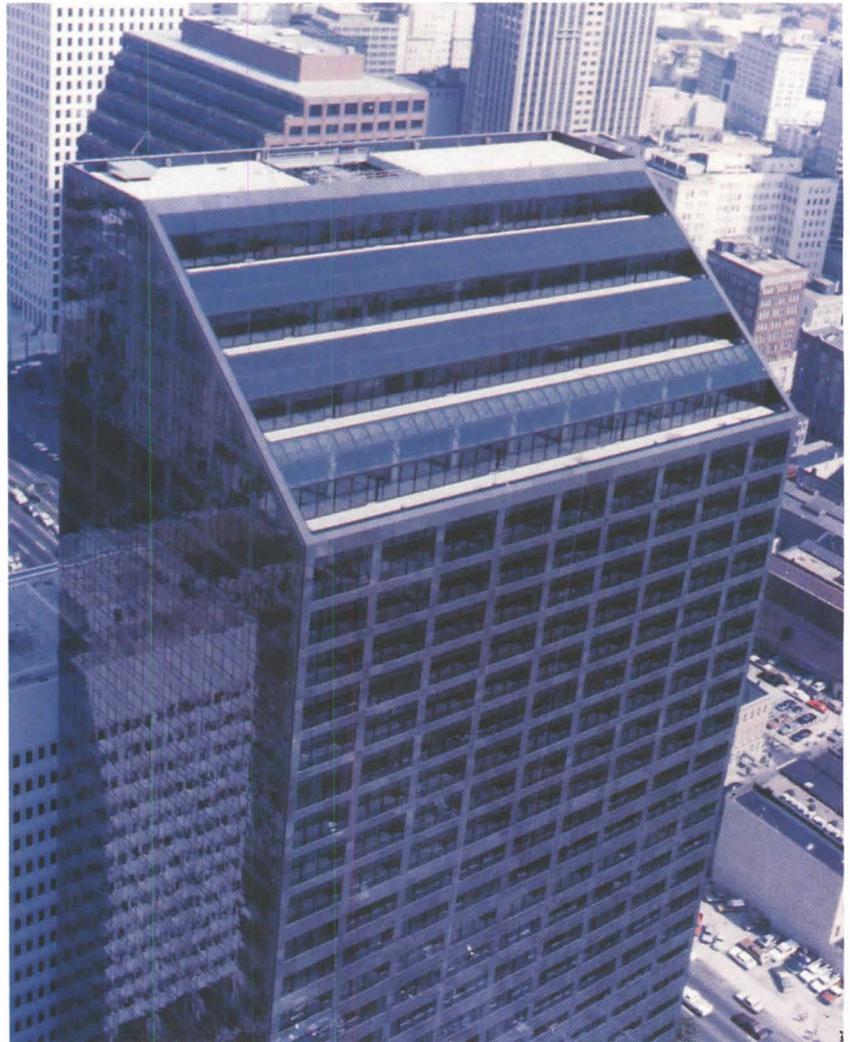
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Views

To the future!

I would like to register disagreement with your editorial "Architecture of Our Time" (P/A, Oct. 1985, p. 9).

Contrary to your anti-future sentiments, I believe that the majority of Americans continue to have great faith in the idea of progress, innovation, and the advance of technology. Observers in the future will blame revisionist "Post-Modern" ideology for the plague of counterfeit culture that is suffocating the Creative Spirit in America today.

I think you are very confused if you believe that *dedication to a set of ideas* is merely a "game" or a "style contest." As architects responsible for the creation of future reality, we must look forward with a clear order of values and STRONG CONVICTION.

I would rather drink from the fountainhead of pure inspiration (original source) than from the dark swamp of imitation and decay.

*Doug Michels, Architect
Washington, D.C.*

[If strong conviction leads the writer to the fountainhead, he is either very fortunate or very wishful.—Editors]

Stirling observed

With rare exceptions, every "great" architect produces a bomb, as we have seen depressingly often in this period of historic transition and confusion. Just how this statement related to James Stirling is perhaps debatable.

Professor Jacobus has done his manful best to pay his respects to the Sackler (P/A, Oct. 1985, pp. 27–28), with emphasis, as one might have expected, on the interior space rather than the effect of the really appalling exterior. Some of us in this sad world are forced to walk in its neighborhood. The pastiche at the Fogg end might be accepted with amusement if the rest of the block had any distinction whatsoever.

I'm happy to see you have properly treated it as a News Report. I trust it is not soon to appear as a Featured Attraction, with some photographer's sexy view impossible for the pedestrian's eye.

*Roy Harlow, AIA
Belmont, Mass.*

[We have no plans for a feature article on the museum.—Editors]

Hoover Dam architect

Unfortunately, Aaron Betsky did not look closely enough when he visited Hoover Dam and wrote his report for your September P/A (p. 38). On bronze plaques next to the entrance tower doors are the names of the dam's chief designers. Listed there is the name of Gordon B. Kaufmann as chief con-

sulting architect. While the overall shape of the dam came from the Bureau of Reclamation engineers, Kaufmann (1888–1949) is largely responsible for the superb architectural impact both externally and internally. Kaufmann was FAIA and a leading Southern California architect. I wrote a brief article on Kaufmann's work at the dam for the December 1983 issue of *Architecture: The AIA Journal*, and much more extended investigations of the design of the dam appear in the fall issue of the *Pacific Historical Review*, devoted to architectural modernism in the West, and next year in *Machine Age America*, to be published by Abrams.

*Richard Guy Wilson
Associate Professor
Division of Architectural History
The University of Virginia
Charlottesville, Va.*

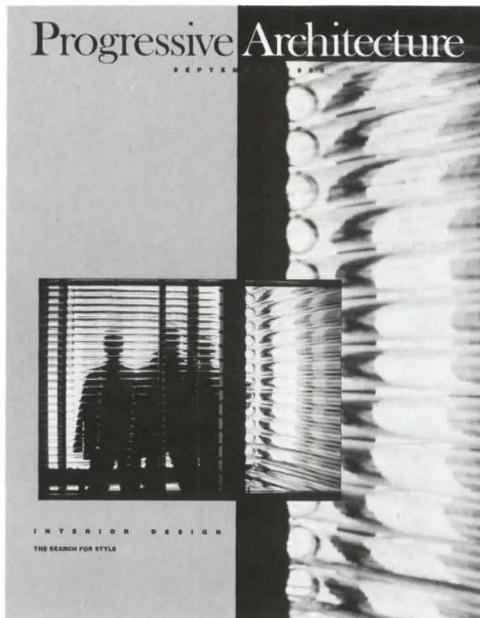


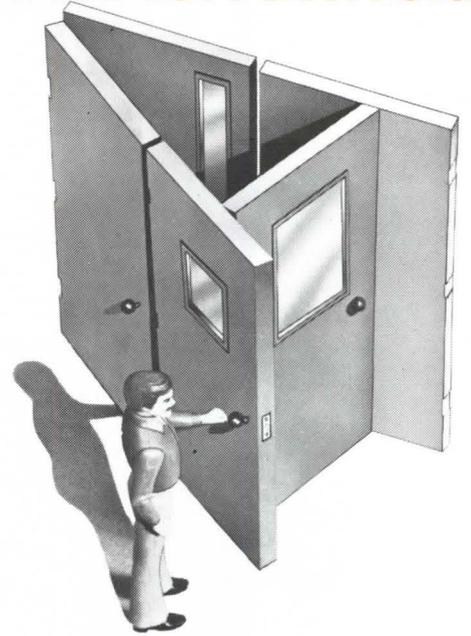
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Several photos of the Alexander Julian Shop, Dallas (P/A, Sept. 1985, pp. 98–103), were miscredited. The cover photo, two small photos, left, p. 100, and two small photos, left, p. 102 are the work of William M. Goodwin, Jr.

Credit extension

In addition to David Hovey, architect for 840 Michigan Avenue apartments, Evanston, Ill. (P/A, Oct. 1985, pp. 88–91), credit is due his associates, Michael Glynn, Steve Gawlik, and Greg Grzeslo.

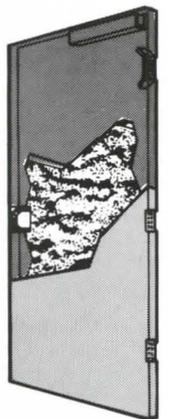
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Paul Haigh, principal, Haigh Space Ltd., New York, architect and furniture designer.

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Margaret McCurry, principal, Tigerman Fugman McCurry Ltd. Architects, Chicago, Ill., architect, interior and furniture designer.

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[Turn page for rules and entry forms]

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1 Architects, interior designers, industrial designers, and design students from all countries may enter one or more submissions.
2 Design must be original. If found to be substantially identical to any existing product design, entry will receive no recognition.
3 Designer may be under contract to or in negotiation with a manufacturer for this design, but design must not be available in the marketplace as of entry deadline.

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4 If the submission should win, the entrant agrees to make available further information, original drawings or model photographs as necessary, for publication in the May 1986 P/A and exhibition at major industry events.
5 P/A retains the rights to first publication of winning designs and exhibition of all entries. Designer retains rights to design.
6 P/A assumes no obligation for designer's rights. Concerned designers are advised to document their work (date and authorship) and seek counsel on pertinent copyright and patent protections.

SUBMISSION REQUIREMENTS

7 Submissions will not be returned under any circumstances. Do not use original drawings or transparencies unless they are sent with the understanding that they will not be returned. P/A will not accept submissions with outstanding custom duties or postal charges.
8 Drawing(s) and/or model photo(s) of the design should be mounted on one side only of one 20" x 30" foamcore board presented horizontally. Any entry not following this format will be disqualified.
9 There are no limits to the number of illustrations mounted on the board, but all must be visible at once (no overlays to fold back). No actual models will be accepted. Only one design per board.
10 Each submission must include a 5" x 7" index card mounted on the front side of the board with the following information typed on it: intended dimensions of the piece of furniture, color(s), materials, components, brief description of important features, design assumptions, and intentions. This information is to be presented in English.

11 Each submission must be accompanied by an entry form, to be found on this page. Reproductions of this form are acceptable. All sections must be filled out (by typewriter, please). Insert entire form into unsealed envelope taped to the back of the submission board. P/A will seal stub of entry form in envelope before judging.
12 For purposes of jury procedures only, projects are to be assigned by the entrant to a category on the entry form. Please identify each entry as one of the following: Chair, Seating System, Sofa, Table, Desk, Work Station, Storage System, Lighting, Bed. If necessary, the category "Miscellaneous" may be designated.
13 Entry fee of \$35 must accompany each submission, inserted into unsealed envelope containing entry form (see 11 above). Make check or money order (no cash) payable to Progressive Architecture.

14 To maintain anonymity, no identification of the entrant may appear on any part of the submission, except on entry form. Designer should attach list of collaborators to be credited if necessary.
15 Packages can contain more than one entry; total number of boards must be indicated on front of package.
16 Deadline for sending entries is January 16, 1986. First class mail or other prompt methods of delivery are acceptable. Entries must show postmark or other evidence of being en route by midnight, January 16. Hand-delivered entries must be received at street address shown here by 5 p.m., January 16.

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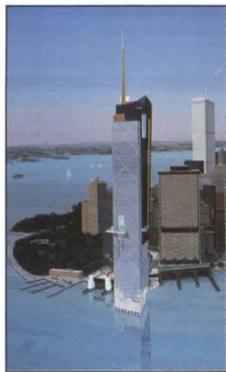
South Ferry Plaza: Jury Still Out

Sometime next month the City of New York will pick a developer and architect for South Ferry Plaza. City officials have their pick of eight proposals submitted by seven developer teams, culled from an original list of 180 applicants. Harnessing private dollars for public benefit, the City has put together a substantial wish list of public amenities that developers must provide for the privilege of building a commercial and hotel complex on the prime 500,000-square-foot site at the southern tip of Manhattan. Evaluated programmatically, the eight projects are all quite exceptional, offering a vast and varied array of public places; architecturally and urbanistically, however, the eight schemes earn mixed reviews.

Project manager Jay Feiertag of the Department of Ports & Terminals goes out of his way to stress two goals: due process and design quality. By the former he means direct involvement of all interested city agencies: City Planning, the Landmarks Preservation Commission; the Fine Arts Commission; Cultural Affairs; the Metropolitan Transit

Authority—all were invited to comment on the request for proposals and all will review the eight submissions and make their own recommendations.

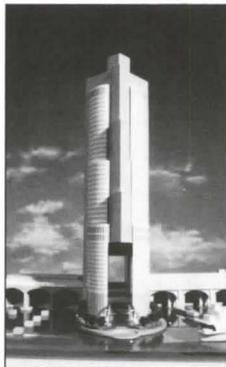
Early consultation with community groups and city agencies sets South Ferry apart from its closest parallel, last summer's Columbus Circle competition, won by Boston Properties (P/A, July, p. 71, and August 1985, p. 23). The projects differ in terms of public benefit as well. Columbus Circle contestants, vying for the right to build an office, hotel, and retail package on the southwest corner of Central Park, had only to promise minor subway improvements. South Ferry applicants, on the other hand, must upgrade the Staten Island Ferry Terminal; restore the landmark 1907 Battery Maritime Building and return its grand, second-floor waiting room to public use; provide a continuous public esplanade along the waterfront connecting Battery Park and the Ferry Terminal on the west to South Street Seaport on the east; set aside one percent of the gross floor area for nonprofit visual or performing arts; solve complex traffic problems; maintain a view corridor down Whitehall Street to the water; and finally "add to the skyline, a profile reflecting upon the best tower devel-



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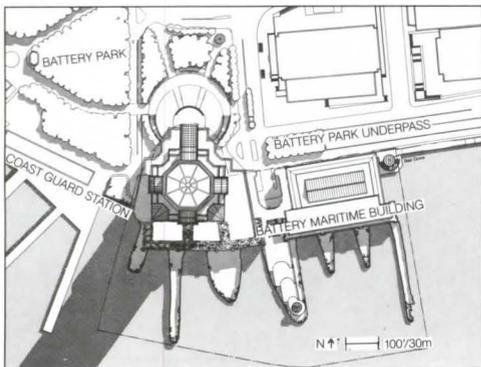


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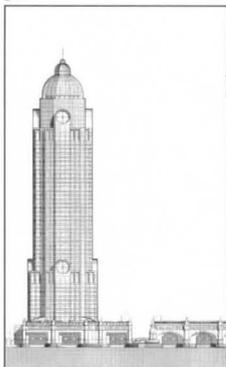


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Wolfgang Hoyt © ESTO



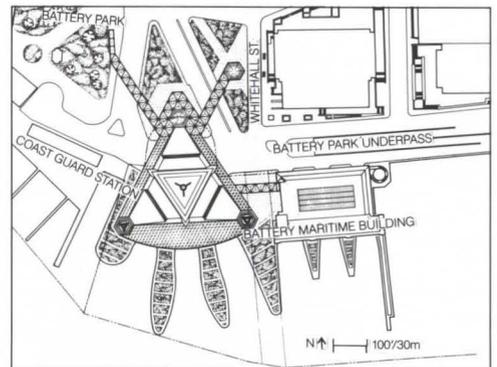
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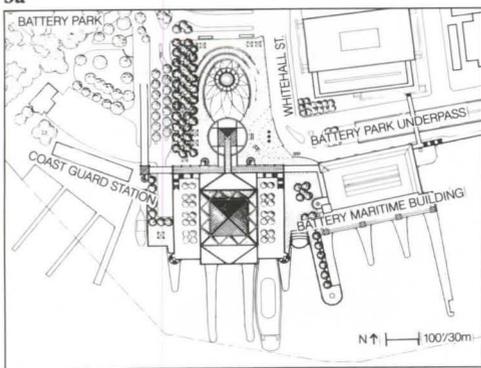
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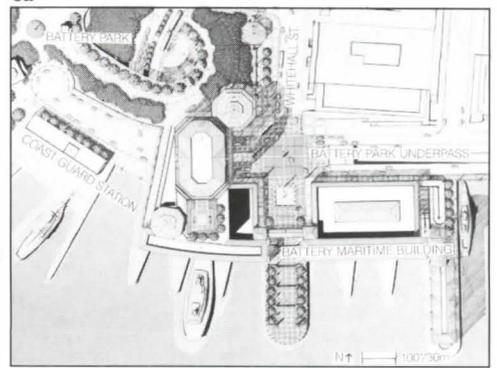


7



8

Harlan Hambright



8a

1. Arquitectonica; 2. Kohn Pedersen Fox/Cooper Eckstut; 3. Emery Roth/Hardy Holzman Pfeiffer/Hooker

Siskind; 4. SOM/Beyer Blinder Belle; 5, 5a. Fox & Fowle/Frank Williams; 6, 6a. Murphy/Jahn/J.S.

Polshek; 7, 7a. Davis Brody; 8, 8a. Clark Tribble Harris & Li.

Pencil points

Barton Myers has been awarded the commission for a new \$65 million Municipal Government and Courthouse complex in Phoenix, Arizona (P/A, Sept. 1985, p. 26). Myers' scheme was selected over those submitted by Michael Graves; Arata Isozaki; and Ricardo Legorreta.

Two legislative bills sponsored by the California Council of the American Institute of Architects take effect January 1, 1986. The first, SB 784, provides that architects and engineers may not be held liable for failures resulting from change orders they did not approve, nor are they required to provide construction observation services unless specifically required to do so by contract with the client. The second, SB 790, will add a fifth architect member to the Board of Architectural Examiners, evening the Board's composition at five architects and five public members. SB 790 also limits those services that a contractor or other unlicensed person may perform to the design of nonstructural storefronts, or interior alterations and additions.

Stanley Tigerman has been appointed Director of the School of Architecture at the University of Illinois at Chicago. Tigerman succeeds Thomas Beeby, who is to become Dean of the School of Architecture at Yale University.

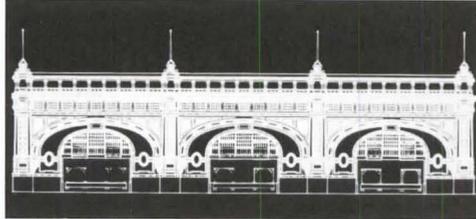
Stuart Wrede, an architect and architectural historian, has been appointed curator in the Department of Architecture and Design at the Museum of Modern Art, N.Y.

Three equal prizes in the Douglas Haskell Awards for Student Journalism, administered by the New York Chapter/AIA, have been awarded to Janet Abrams for her profile of Peter Eisenman in *Blueprint*; Dorit Fromm for a report on cooperative housing in Denmark and Holland in *The Architectural Review*; and Sarah Williams for her review of the exhibition "White City: International Style Architecture in Israel," in *Architectural Record*.

Fumihiko Maki and James Stewart Polshek have been selected to design the Yerba Buena Cultural Center. Maki will design the exhibition gallery, Forum Festival hall, and 600-seat video center; Polshek will design the remaining pieces of the program. The two architects were selected from a short list of five that included Mitchell-Giurgola, Arata Isozaki, and Hans Hollein.

opment of Lower Manhattan." In return, the City will increase the allowable square footage from a zoned one million square feet to 1.5 million square feet.

While shying away from sticky questions of style, the request for proposals describes a waterfront version of Grand Central Terminal; applicants are urged to make the most of the ferry experience, now no more dramatic than a bus terminal queue, and to capitalize on the inherent complexity of the site, where ferry lines, two subway lines, tour boats and buses, cars, and pedestrians con-

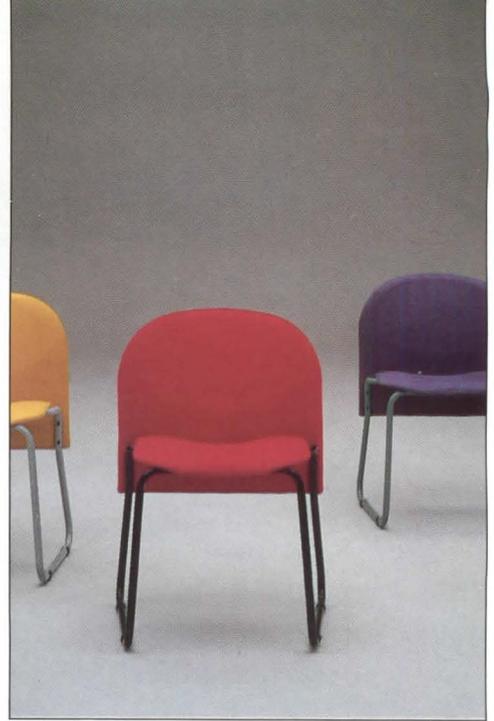


Battery Maritime Building, South Ferry, N.Y.

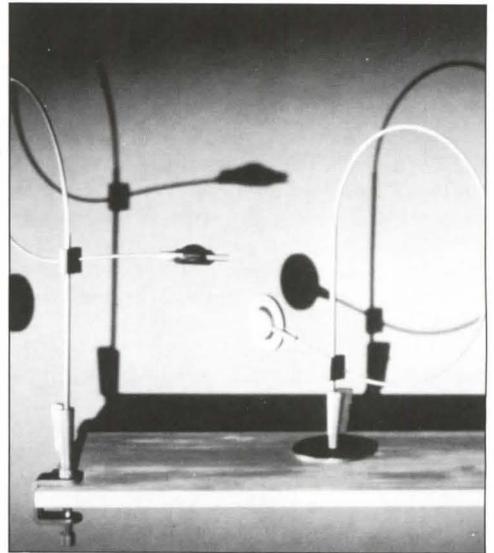
verge. Architects from Le Corbusier to Rem Koolhaas have dreamed of a Manhattan commission of this complexity and interest.

In brief: Arquitectonica's is the most exotic solution (Jack Parker Corp., developer). The Miami firm makes a snappy 68-story tower and terminal, but the crucial link from tower island to the mainland is weak. Clark Tribble Harris & Li (William Kaufman/Kaempfer, Clark Enterprises/the Catco Group/Goldman Sachs) repeat the Battery Maritime Building façade for their new ferry terminal; that decision may be based on historical evidence (the two buildings were a pair before the 1954 renovation of the Staten Island Ferry Terminal), but it's an architectural mistake, forcing a piggyback solution for their ever-so-ordinary office tower. Emery Roth/Hardy Holzman Pfeiffer/Hooker Siskind (Jay Pritzker/Alvin Dworman/Stephen M. Ross) build right on the Whitehall axis, punching a hole in their faceted tower to accommodate the required view corridor; that move, however, is nullified by a glass wintergarden that plugs the gap. Helmut Jahn with J.S. Polshek & Partners (Olympia & York) turns out a scaleless Buck Rogers building. Kohn Pedersen Fox's/Cooper Eckstut's bundle of towers (Continental/World-Wide/Zeckendorf/Arthur G. Cohen/Zev Wolfson) also terminates Whitehall, attempting to fill the awkward space between the Battery Maritime Building and the Ferry Terminal, and thereby blocking the view corridor. Finally, SOM with Beyer Blinder Belle (HRO International/Salomon Bros.); Fox & Fowle with Frank Williams (Continental, et al.); and Davis Brody (Tishman Speyer/Equitable) all offer variations on the conventional 1980s office tower.

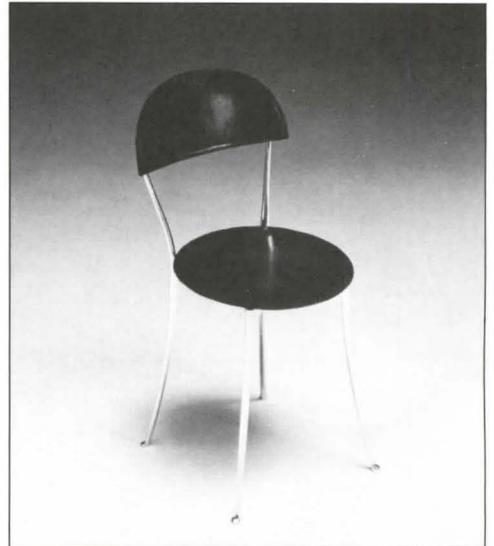
Cynics, citing Columbus Circle, maintain that the relative merits and demerits of the eight schemes are irrelevant—the highest bidder gets the prize. The South Ferry program emphasizes urban design and public benefit, yet this very public project has not been properly presented to the public at large, outside of city agencies. Several civic groups now feel compelled to step in, scheduling a belated public forum for December 18. **Daralice D. Boles**



Poltronova, "Polis"



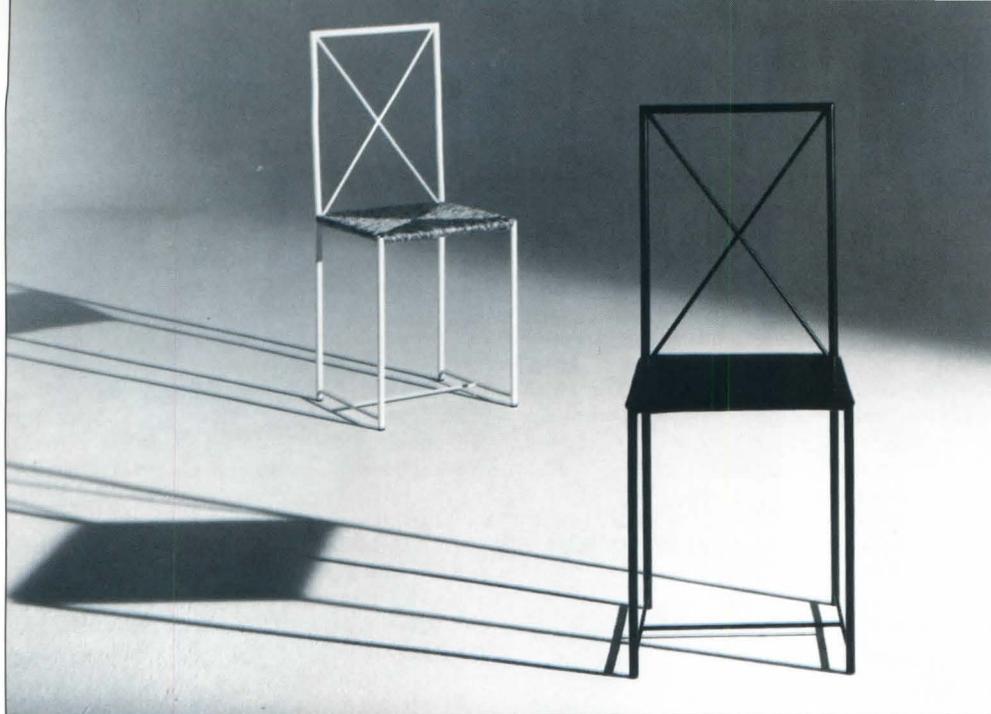
Sirrah, "Sigla"



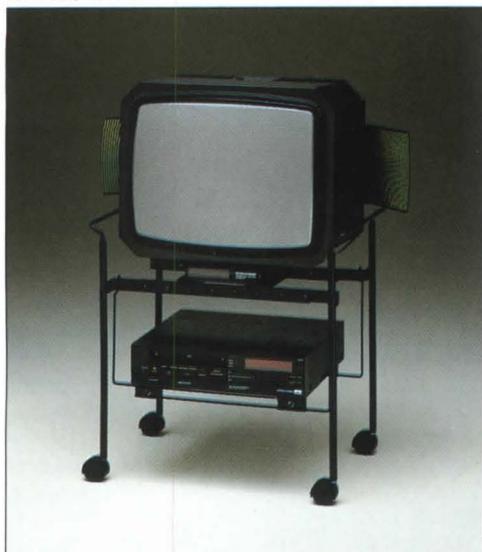
Zanotta, "Toniotta" (above); Fontana Arte, "Tazio" (below)



Mario Carriero



Flexform, "MOKA"



Zanotta, "Teulada"



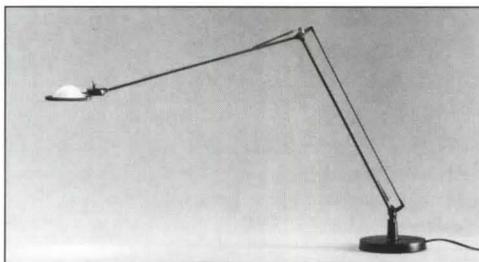
Casas, "Varius"



Kartell



Cappellini, "Pelikan"



Luce Plan, "Berenice"



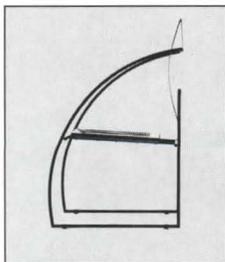
Vitra, "Persona"



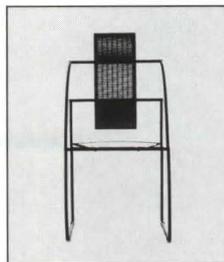
Maurer, "Fukushu"



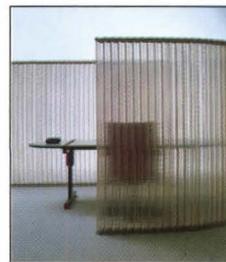
Acerbis, "Serenissimo"



Alias, "Quinta"



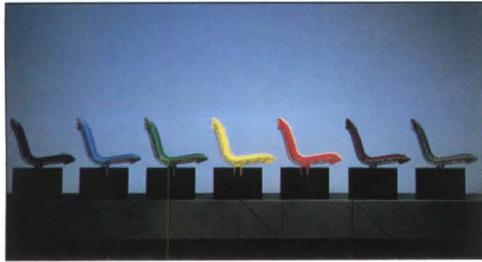
Alias, "Quinta"



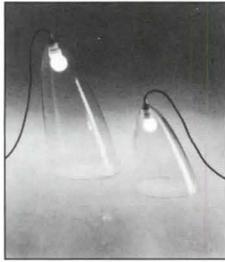
Sacea, "Snake"



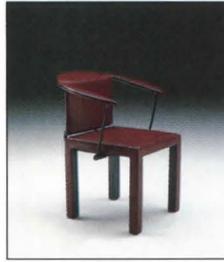
Cassina, "Villabianca"



Tecno, WS 2



Skipper, "Ghost"



B&B, "Arcella"



Artemide Litech, "Giove"



Valenti, "Valentina"

Milan 85: Middle of the road

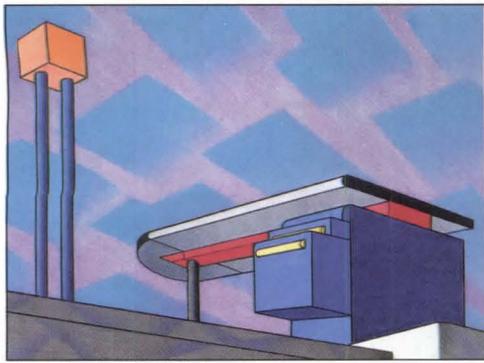
The 25th Salone del Mobile, Milan's annual furniture fair (September 19-24), was pleasant, if not remarkable. Historicism was noticeably absent from many manufacturers' stands, with most toeing an elegant, conservative, Neo-Modernist line. Nostalgia for Rationalism ran high, in items such as Flexform's reproduction of Asnago & Vender's elegant 1939 chair and table for Milan's MOKA café, Zanotta's lyrical Toniotta chair and Driade's Delfina Metallo chair, both designed by Enzo Mari, Cappellini's Pelikan chair by Pelikan Design, and Paolo Piva's Arcella leather armchair for B&B. Driade's Aleph division showed Philippe Starck's Ubik collection, and Bieffeplast brought out another winner by Rodney Kinsman, the Tokyo chair. There was lots of metal, leather, and glass, and anything that wasn't black, silver, or cowhide color seemed refreshingly bright. Primary colors have returned from their long exile: see Tecno's WS 2 seating; Poltronova's stacking and folding upholstered chairs by Michele De Lucchi; and Kartell's polypropylene stacking chair.

Tables were more decorative; the metal legs of Acerbis International's Serenissimo, designed by Massimo and Lella Vignelli with David Law, for example, are finished with encaustic plaster in cool Venetian tones. The Spanish company Casas showed a distinctly historicist, claw-footed table by Barcelona architect Oscar Tusquets, who also designed (with Lluís Clotet) a distinctly modern, black steel television and VCR trolley for Zanotta. Another trolley, designed by Franco Raggi in aluminum and glass, appeared at Fontana Arte, whose elegant new showroom on Via Montenapoleone was designed by Raggi and Daniela Pupa. Cassina introduced Massimo

Bietto Chimentì

Ballo e Ballo

Liderno Salvador



Daniele Scandola

Olivetti Synthesis, "Delphos"

Morozzi's leather sofas and Vico Magistretti's Villabianca chair in its Via Durini showroom, newly redesigned by Clino Castelli using a 3M-produced reflective material in the ceiling dome to produce retroreflected or "gray" light, which is far brighter than light reflected on a white surface, without glare or shadows.

At EIMU, the biannual office furniture fair, Olivetti Synthesis exhibited an extensive mock-up of prototypes of its new Delphos system, designed by Ettore Sottsass and Michele De Lucchi. Sacea introduced Snake, a wall system of PVC tubes linked by a flexible spine, designed by Isao Hosoe and Ann Marinelli, and Space, Hosoe's new office system. Mario Bellini's group of ergonomic office chairs starred at Vitra's stand; the Persona chair is designed to respond automatically to changes in the user's position.

As usual, Euroluce, the lighting show, offered some of the most interesting products. Halogen lamps were, of course, in plentiful supply: Valenti's Valentina lamp, by De Pas, D'Urbino, and Lomazzi; Sirrah's flexible-arm Sigla, by René Kemna; Luce Plan's elegant Berenice, by Paolo Rizzato and Alberto Meda; and Luci's Moda, designed by Toshiyuki Kita. More whimsical were Luna, Sigehaki Asahara's halogen table lamp for Stilnovo; Ingo Maurer's Fukushu table lamp (more tribal art than lighting); and Skipper's Ghost table lamp by Angelo Mangiarotti. One of the most technically interesting items was Ernesto Gismondi's Giove for Artemide Litech. The metal halide spotlight, designed for exhibition spaces, can be used as a table, wall, or ceiling fixture.

There was also the usual mixture of partying and polemics. The publisher Mondadori

launched Giuliana Gramigna's vast and impressive survey of contemporary Italian Furniture, 1950-1980 *Repertorio*. Alias showed the Quinta chair, another of Mario Botta's elegant triumphs of geometry over comfort. And, while both Memphis and (Nuovo) Alchimia exhibited new designs, one wishes they hadn't. The old cheekiness that was Memphis's great strength has now lapsed into embarrassing contortionism, and over-decorated takeoffs on furnishings from the 1950s were what passed for wit at Alchimia. As they say in Italian, *basta*.

Pilar Viladas



Tigerman's Romeo & Juliet.

Only 21 shopping days left . . .

What to get the couple who have everything? How about this pair of whimsical steel towers, designed by Stanley Tigerman for Swid Powell? Advertised in the Christmas 1985 catalog of their exclusive distributor, Neiman-Marcus, the towers, which measure 15 feet (pink) and 21 feet (blue) tall, are seen by their designer as the latter-day Romeo and Juliet of their kind, best placed under or near a big tree; each tower seats two, of course. The price for the pair is \$15,000, installation not included, or \$7500 each. But don't buy just one: you know what happened when they tried to break up Romeo and Juliet. . . .

Pilar Viladas

Christo's Wrapped Pont Neuf

Paris's Pont Neuf modeled a new look last September when the artist Christo wrapped it in 40,000 square meters of sandstone-colored fabric. The oldest bridge in Paris has changed continually since its completion in 1606, as shops were erected and demolished, statuary neglected or "restored," but perhaps never with such festivity and grace. For two weeks, the gray stone arches seemed dressed in the finest French couture.

The pleated fabric, belted with delicate cords, defined proportion while softening detail. The gaiety and softness of the wrapping dematerialized the weight and age of the stone, giving the bridge's form the startling lucidity of a dream. Paradoxically, the woven polyamide fabric proved in many ways stronger than the old stone; protecting sculpture and crumbling corners was the chief difficulty of the installation.

The wrapping involved hundreds of workers and seven days of furious activity. But for Christo, the ephemeral "completion" of this project is only its most visible component. Nearly ten years of preparation were required to obtain necessary permissions from the French authorities, work out technical problems, and ready materials. All work was paid for by Christo himself, through the sale of drawings and models. The artist considers these political and economic efforts fundamental to his art, providing the social and ethical ground for the aesthetic result.

All Paris gathered for the wrapping, giving the staid quartier a carnival air. Photographers shot commercials, sailors on strike tooted barge horns, artists sketched, tourists thronged the Pont des Arts for a look. Some wanted a more colorful fabric, some less; many wondered what the point might be, or grumbled at the crowds. As the sun set, the fabric changed colors; dulling to mustard, then brightening to glossy gold, Christo's Pont Neuf shone like a halo against the gentle grays and greens of Paris.

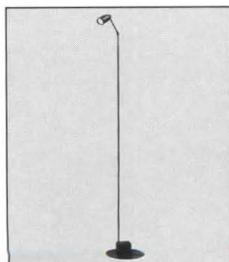
Thomas R. Matthews

The author is a freelance writer based in New York.

Christo's wrapping of the Pont Neuf, Paris, below: during installation (right) and completed.



Diatrie, "Delfina Metallo"



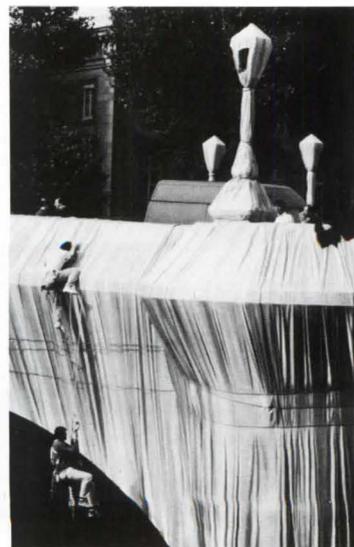
Luci, "Modi"



Stilnovo, "Luna"



Bieffplast, "Tokyo"



Photos: Deitl von Schaeuwen

Gwathmey Siegel's Guggenheim: Redoing Wright

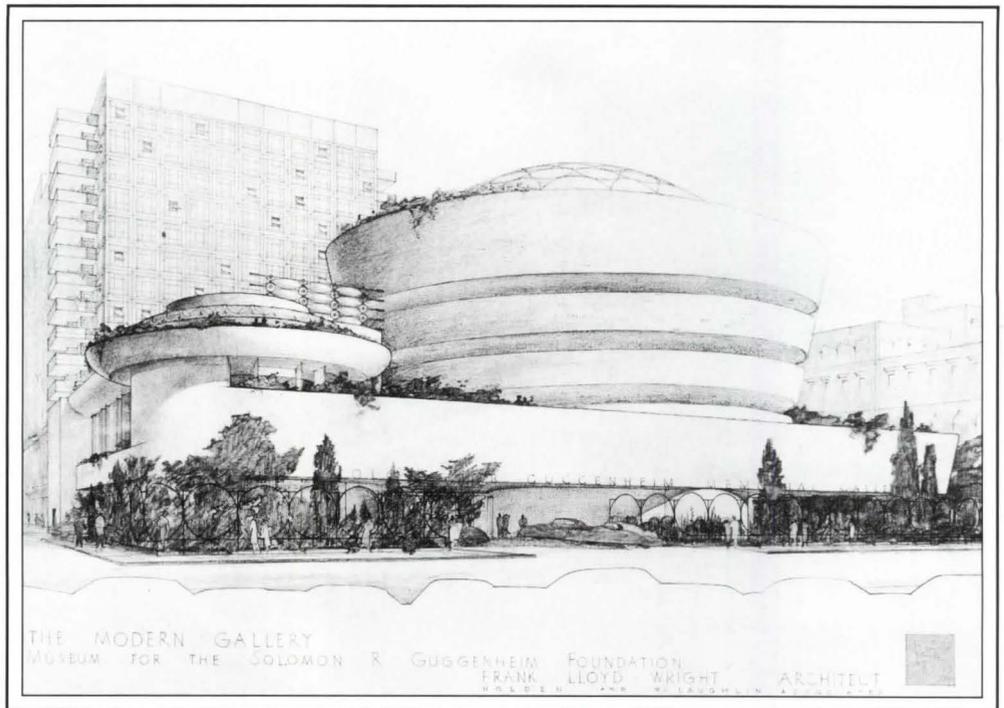
As the controversy surrounding the extension to New York's Whitney Museum (P/A, July 1985, p. 23; Sept. 1985, p. 25) continues, the proposed addition to the Solomon R. Guggenheim Museum is quietly going through its final licensing stages. While Frank Lloyd Wright's only major building in New York enjoys landmark status in the public perception, it is not old enough to be legally designated nor is it protected as part of a historic district. When the structure will be eligible for landmarking in four years, the extension designed by Gwathmey Siegel & Associates will probably be in place.

The museum on Fifth Avenue at 89th Street needs to expand. At present, only 300 works are shown from a total of 6000 in the Guggenheim's permanent 20th Century Art collection. Doubling the space available for permanent exhibition will enable the museum to narrate the evolution of modern art over the past 100 years, "an educational experience without which this city is impoverished," says museum director Thomas M. Messer. Moreover, the added space would be used to rehouse off-site functions such as the library, and to relieve cramped administrative and bookstore facilities.

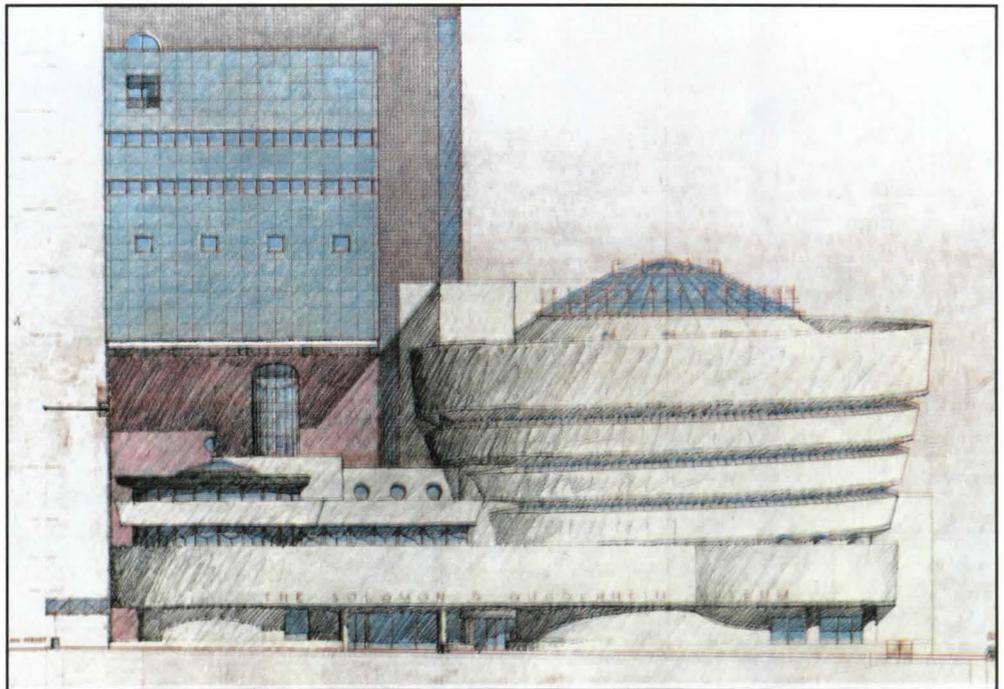
Wright's self-contained, curvilinear forms posed a daunting challenge to the architects. The 13,000-square-foot expansion comprises three distinctly articulated parts. A narrow slab, clad in beige tile, which rises 148 feet along the east lot line, will house the extension core and serve as a backdrop to Wright's composition. A second, boxlike loft structure, clad in gray-green porcelain tile and cantilevered out from the beige slab on white-steel girders, appears to float above the annex added in 1968 by William Wesley Peters, Wright's son-in-law and member of Taliesin.

The Peters annex was designed to support a taller building. Gwathmey would reconstruct the annex using the existing foundations and retaining the original skeleton but stripping and altering the skin. The transfer girders top this wall, establishing a datum line that marks the top of the great rotunda. That datum also coincides with the first setback of the adjacent building on East 89th Street, thus striving to mediate between the neighborhood streetscape and Wright's edifice. Above the girder line, the box contains an opaque art storage floor, and a conservation floor articulated by square punched windows on three sides. Strip windows mark two administrative levels, topped by a mechanical floor and a skylighted boardroom whose square balcony window overlooks Central Park. The front façade of the box projects to the center line of the great rotunda, a plane that is tangential to the circle of the small rotunda.

The new public spaces located below the girder line, within the reconstructed annex, include the expanded bookstore on the ground level and five floors above devoted to permanent exhibition space. The roof of the original annex becomes a sculpture terrace, and a tinted concrete reveal separates terrace and girders. A cylindrical glassed-in stair connects the fifth and sixth levels while



Wright's scheme for the Guggenheim annex, 1957.



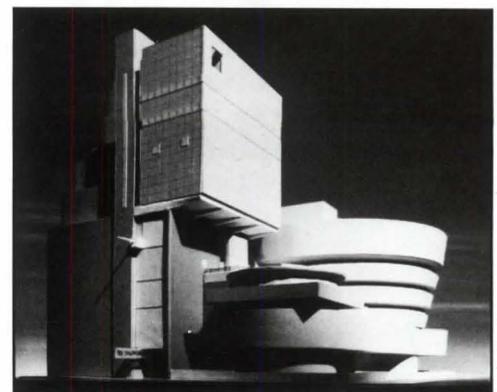
5th Avenue elevation.

functioning as a skylight to the fourth floor.

For the first time, the entire Wright complex will be accessible to the public. The southern segment of the core slab tucks behind the great rotunda, connecting its ramps to the new exhibition spaces with drawing galleries on every level. Similarly, the small rotunda is connected to the addition on the north side by a glass curtain wall set back from the street edge. The restaurant is relocated to the top of the small rotunda.

In June, despite warnings from several preservation groups that the addition injures the building's formal integrity, thereby harming the museum's greatest work of art, Community Board 8 approved zoning variances based on a schematic massing proposal.

Now the \$9 million project must pass an environmental-impact study conducted by the city Planning Commission, after which it will



Gwathmey Siegel's tower addition.

come before the Board of Standards & Appeals. **Ziva Freiman**

The author is a freelance writer based in New York.

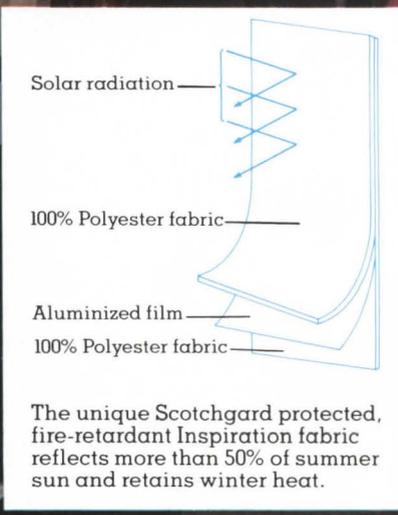


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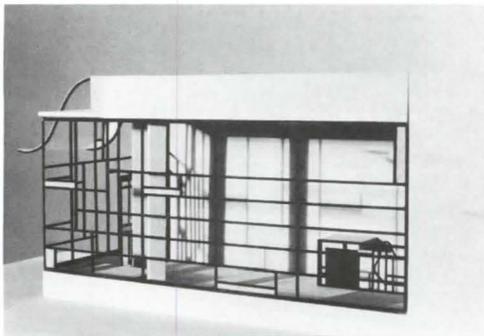
Mallet-Stevens: "Chiara."

Designer's Saturday: Highlights and Hot Spots

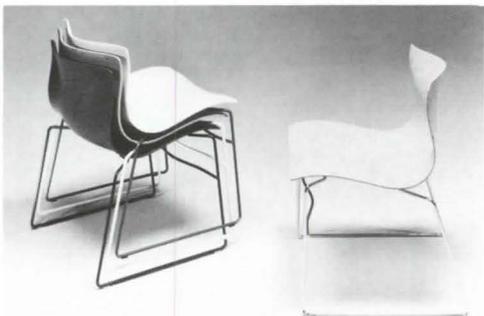
New York's annual Designer's Saturday, held October 11-12, included 56 member showrooms, the largest number ever, which challenged the stamina (and shoes) of the estimated 12,000-15,000 people who attended. This ever-expanding geographical problem was not lost on the International Design Center, which, although still under construction in Long Island City (P/A, Nov. 1985, p. 36), staged a preview opening to coincide with the event. Those Designer's Saturday members who have already opened showrooms at the unfinished IDC—Fixtures, Metropolitan, and Alma Desk—managed to achieve a good deal of polish in a limited amount of time. Facility Manager's Day was a great success, and the annual post-event party drew a record 5500 merry-makers. Shown here are showroom highlights.

Images of America, at the **Beylerian** showroom, showed two reproductions of tubular steel furniture by Parisian architect Robert Mallet-Stevens: the Chiara chair and Amadeus, a tall square stool. The originals, designed between 1927 and 1929, furnished Mallet-Stevens's study. (The stool's footrest and optional upholstered chair back are new additions made by the manufacturer.)

ICF showed reproductions of Josef Hoff-



Holl: Pace Showroom.



Vignelli: Handkerchief Chair.



Hoffmann: Armchair.

mann's living room furniture for his 1911 Palais Stoclet. The grandly scaled armchair and three-seat sofa are the latest offerings in ICF's 10-year-old program, "Re-Creation: Josef Hoffmann."

The Pace Collection displayed a model of Steven Holl's design for the company's second New York showroom. The showroom, which is currently under construction at the corner of Madison Avenue and 72nd Street, will have two huge window walls of glass and steel, with panes of amber and sandblasted glass set into the grid.

Vignelli Designs' molded fiberglass Handkerchief Chair was prominently displayed in the **Knoll** showroom, in an astonishing variety of guises—with and without arms, in primary colors, two shades of Zolatone, neutrals, and upholstered—and that doesn't even include the frame finishes.

Joanna Wissinger, Pilar Viladas

AIA Practice Management Conference: Two Concerns

A two-day management conference held by AIA in New York, October 10 and 11, addressed two different topics of great current concern: creativity in the firm and the costs of liability.

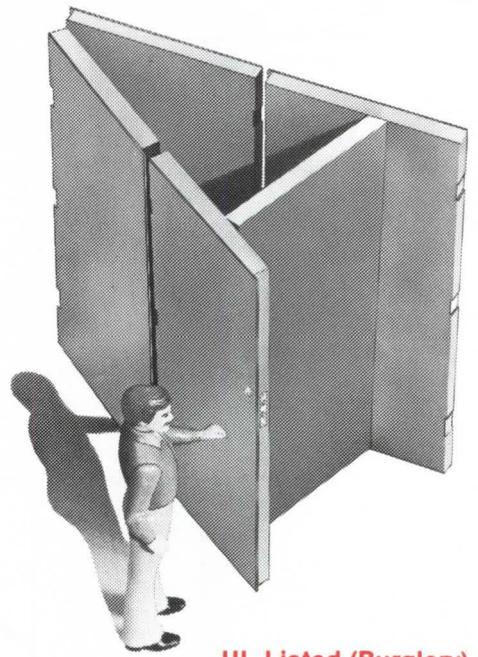
Creative Management

Day one, on the management of creativity, was introduced very effectively by AIA chief executive officer Louis Marines, who identified special characteristics of design professionals. These people, he pointed out, are typically more loyal to their profession than to their firms, more interested in opportunity and recognition than in money; for them, authority is established by expertise, rather than position. Unlike engineers, architectural professionals tend to resist pragmatic, number-based considerations and to view management as too business-oriented.

Effective managers of the design process, said Marines, must share decision-making widely with professional staff, but assume the crucial roles of identifying goals, setting the pace of work, and applying pressure to complete tasks. (Studies prove, he reported, that professionals work better under pressure.) But the most crucial management decision, on which all else depends, is hiring.

Three New York architects contributed their observations. John Burgee, FAIA, of John Burgee Architects with Philip Johnson, stressed that management itself can be costly. Management consultants, in his experience, recommend adding management personnel, cutting "inefficient" design time, and devis-

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ing elaborate automated record-keeping. Never, he warned, establish budgets or collect figures that you cannot realistically act upon.

Eugene Kohn of Kohn Pedersen Fox Associates stressed that creativity begins with the contract for services. He identified low fees and clients who don't appreciate quality as obstacles to creativity. Contractual provisions, he asserted, should cover program changes, extensive approval processes, and any delays, so that neither quality nor profit need be sacrificed. He urged architects to be selective about clients and to tell them up front that good design services cost money.

Peter Samton of the Gruzen Partnership recounted the conversion of his firm to an organization of studios, which has become effective through fine-tuning. He noted the positive value of in-house communications, including exhibitions of work in progress, staff visits to projects, and weekly talks by staff members.

Wrapping up the plenary discussion was David Maister, a consultant and former professor at the Harvard Business School. Effective management, he pointed out, is neither housekeeping nor policing, but leadership. Research proves, he said, that well-led groups are more creative and productive. Good leaders, he said, make sure that someone working in the firm for five years gets "five years' experience, not one year's five times." Good leaders also recognize that different commissions require different degrees of creativity vs. experience. ("For a tonsillectomy, you don't want creativity.")

He proposed techniques to make sure that professionals are not "too busy" to learn from experience; one way to encourage reflection on experience is to have members of the firm report periodically on what they have learned since their last turn to report. Such devices are valuable, says Maister, because "The better you are, the more likely you will stop learning."

For the balance of the creativity program, conferees broke up into workshops that covered negotiating, risk management, personnel policies, financial management, and "team building," which had to do with identifying personal working styles and how they interact in team efforts.

Liability Crisis

The second day of the Practice Management Conference focused on the liability crisis facing the profession. The insurance industry, according to Paul Genecki of Schinnerer & Company, goes through cycles of "soft" and "hard" markets. High interest rates and inflation in the late 1970s and early 1980s gave insurance companies a large return on their investments, creating a "soft" market that greatly reduced the cost and expanded the coverage and availability of insurance.

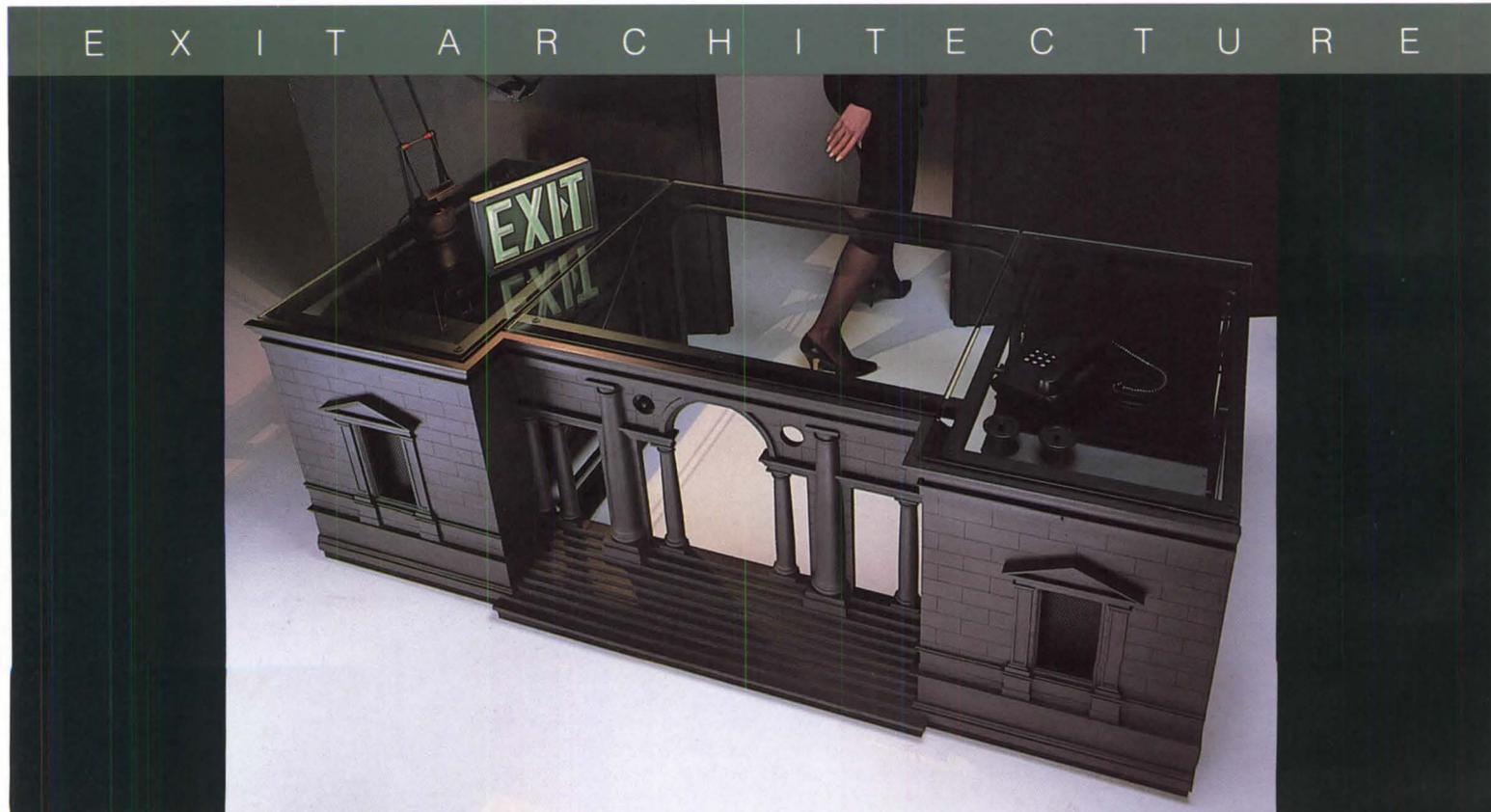
That situation ended abruptly in 1984. Declining interest rates and inflation, combined with increasing malpractice and pollution-related settlements, contributed to the first pre-tax loss to the insurance industry since 1906. As a result, the number of companies under-

writing architects dropped to half of what it was one year ago; rates have increased by about 35 percent; prices for some policies have increased as much as 300 to 400 percent; and coverage has decreased or, in the case of asbestos removal, disappeared. Genecki said that this "hard" market would continue at least through 1986.

Better communication may help the situation. The failure to communicate with owners and contractors, said Genecki, accounts for the largest number of claims against architects, and failure to communicate with the public, said Joan Capelin of Capelin Communications, can damage a firm. However, the real solution to the liability problems of architects, said several insurance representatives at the conference, lies in legislative reform. Hawaii's recent Design Professional's Conciliation Panel Law, which mandates that a panel of professionals and laypeople try to resolve a claim before it goes to court, received the most praise.

The impetus for reform may come, ironically, from a cause of the current crisis: asbestos. The disappearance of insurance for asbestos removal has virtually stopped work on a problem that the public clearly wants addressed. "It's given architects a public issue," said Genecki, "that may get people to pay attention to the insurance problems of architects." Like creativity, liability seems to require creative management.

John Morris Dixon, Thomas R. Fisher



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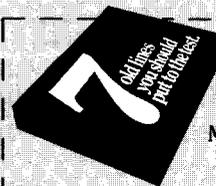
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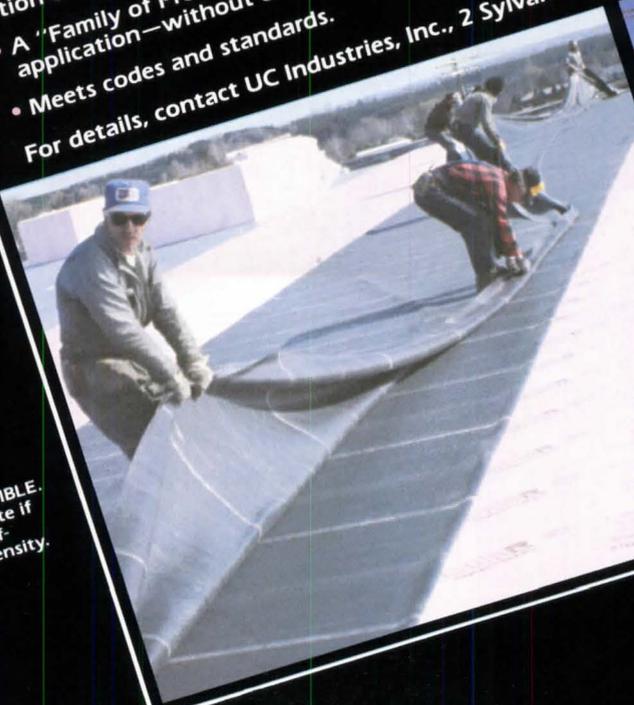
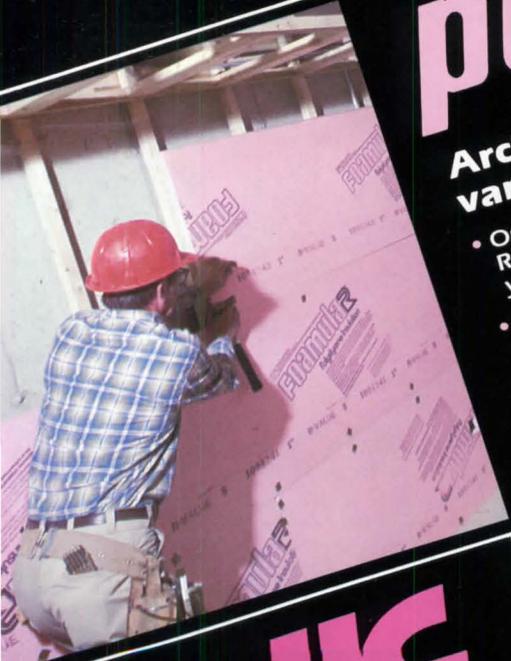


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Perspectives

San Francisco's pioneering downtown plan became law September 17. This analysis considers its potential impact and possible shortcomings.



Commentary: San Fran plan

Stating that San Francisco is now "in the vanguard of American cities," Mayor Diane Feinstein signed its Downtown Plan into law September 17, ending two years of speculation about its contents, if not controversy over its probable effects.

The plan's prime goals are to manage growth and to improve urban form. Heading the list of provisions is the reduction of floor area ratios from the present 14:1 to 9:1 in the financial district and to 6:1 and 5:1 in the downtown retail and support districts, respectively; the selective lowering of height limits for new buildings from 700 to 550 feet—the latter only permitted in a special South-of-Market district—and as low as 80 and even 50 feet in portions of the retail and general use districts near Union Square and Market Street.

The preservation of 250 first-category historic buildings and 182 secondary buildings in and out of six conservation districts will

ensure that the areas most cherished by the people who actively use downtown, whether they be shoppers or entertainment-seekers, will retain their familiarity. The transfer of development rights from designated, significant buildings to new project sites in the same district compensates for taking these sites off the development roll.

Sunlight access criteria are in force per the plan in traditionally popular pedestrian areas, mostly around Union Square and nearby Market Street, where the noontime hours have been given an inalienable right to sunlight. The plan also reflects changing wisdom on open space: Though parklike spaces in the city are not adequate, particularly in the South-of-Market district, the purposeless plazas produced by developer bonuses on the shady side of indomitable buildings are now out. Instead the city hopes to control how and where open space is used and has instituted a Downtown Park Fund to which developers must contribute.

The list of developers' financial obligations lengthened toward the end of the approval process. Contributions to housing and to

transit, based on project size, have been in the plan since the beginning. A contribution of one percent of project cost (now two percent for city buildings) to public art as well as an open space requirement were also original items. But in the final weeks of the Board of Supervisors review, contributions for child care centers and job brokerage services were included. Added together, these assessments have increased project construction costs an estimated \$13 per square foot.

From the development community's point of view, the most devastating 11th hour amendment was the cap on development of 950,000 square feet annually or 2.85 million square feet for the next three years. The cap will not, however, stop growth cold. The plan exempts more than 14 million square feet of construction, either in process or approved, in the form of large mixed-use projects like Yerba Buena Gardens, Mission Bay, and Candlestick Executive Park and smaller complexes such as Embarcadero West. Buildings

Comparative models by Peter Bosselman, U.C. Berkeley show San Fran present (below) and future (above).



Perspectives

under 50,000 square feet are also exempt. Slow-growth advocates therefore find the plan ineffectual.

Of greatest concern is the political process that will guide the selection of projects for approval, dubbed "the beauty contest." The first year's square footage quota has been nearly consumed by two buildings, the Barker Building at 100 First Street designed by SOM-Houston and Heller & Leake, and Whistler/Patri's Hills Bros. Coffee Plant complex, leaving the door open for only four or five other buildings. The office of the Director of City Planning thus wields tremendous power. Decrying the fact that the project review process would be controlled by non-architects, *San Francisco Chronicle* critic Alan Temko proposed to appoint a panel of distinguished architects to meet once a year to review individual projects. Mayor Feinstein has accepted the recommendation and instructed the Planning Commission to establish a blue ribbon panel of three to five architects to ensure that the city gets high-quality buildings.

Do local architects see this action as a solution? Their answer is no. The objections to peer review range from cynicism about political appointments to skepticism about whether the panel would do its homework. In any case, it is another hurdle in an already difficult obstacle course.

How have developers responded? Are they training their sights on Oakland or packing their bags for L.A.? Certainly many of them cannot afford to wait out the review



period, which may now take an indeterminate length of time. Nor will more slender towers with floor plates reduced to 17,000 square feet be attractive to clients with a large back-office component. Yet the development climate outside San Francisco is no rosier. East Bay boom centers now have over a 25 percent vacancy rate, and one, Walnut Creek, may consider a moratorium on development because of the traffic congestion on commuter freeways. For many reasons, enough players will probably concede that the price of doing business in San Francisco is still affordable.

Despite all the flack about stepped-back towers with "fancy hats" proscribed by the new height-and-bulk controls, Jeff Heller,

whose office, Heller & Leake, has designed the first building (the Barker Building at 100 First Street) to press successfully through the approval process, has high praise for the plan. Exemptions to the set-back regulations for sites less than 75 feet wide and provisions for site-averaging will allow the designer flexibility in deciding how form is to be modeled. Heller feels that not enough architects have worked within the controls to realize that they are not as rigid as feared. He also sees in the exemption for buildings under 50,000 square feet an opportunity for the variety of form and scale that the plan envisions. That variety can only come with time.

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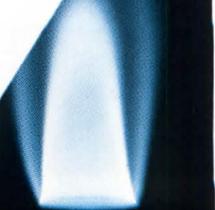


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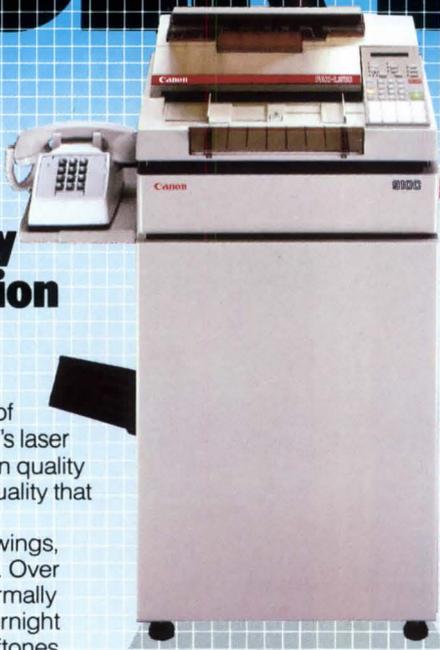
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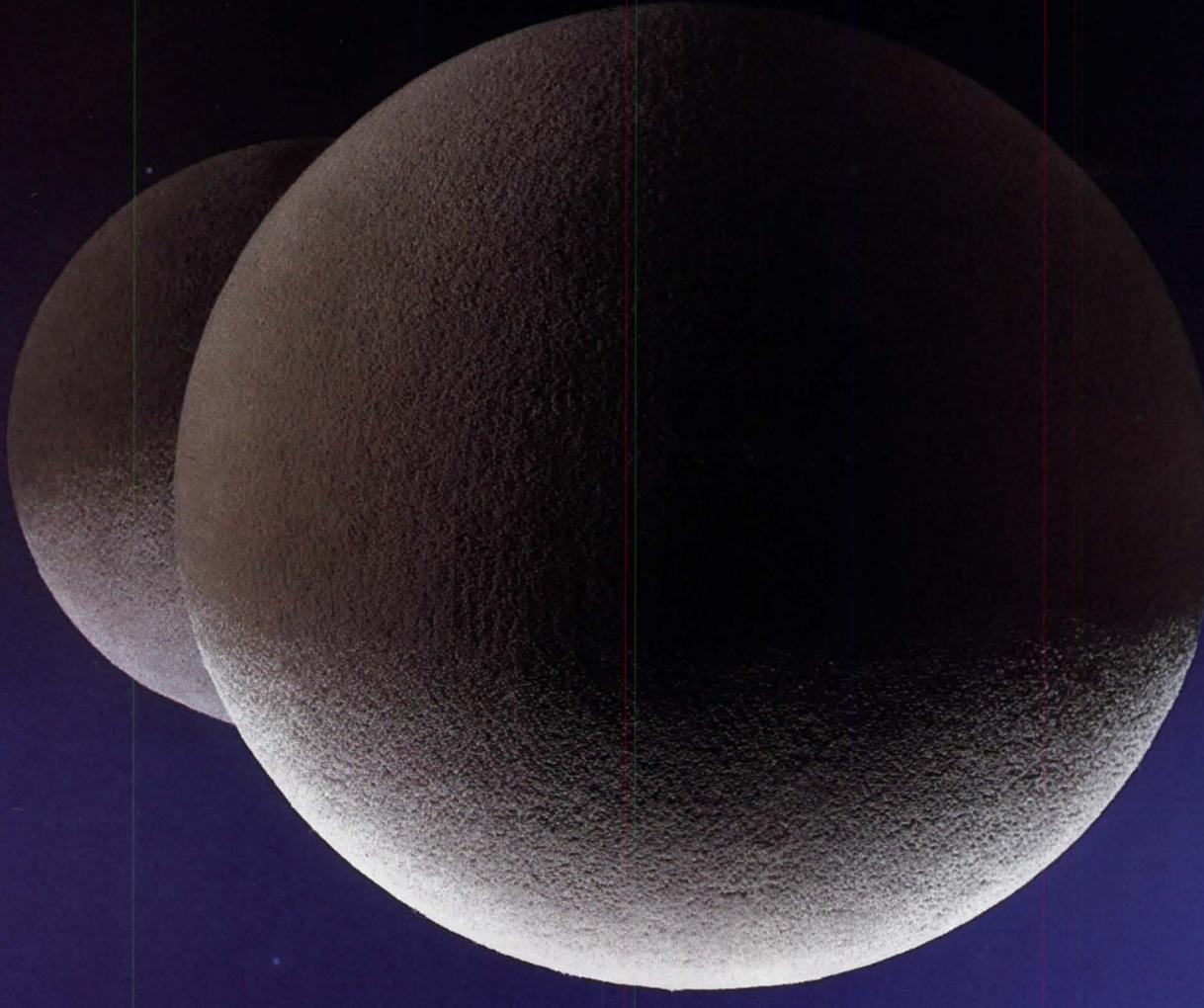
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In Progress

1a, b Madison Square, New York, N.Y. *Architects: Skidmore Owings & Merrill, New York; Frank Williams & Associates, New York, residential.* The site of the original Madison Square Garden on Manhattan's west side is to be occupied by a block-sized mixed-use development. ZCW Associates (William Zeckendorf, Worldwide Realty and Arthur Cohen, developers) plan a 1.5 million sq. ft., clear glass and masonry office tower set atop an oval-shaped ground floor retail galleria. A 39-story apartment tower is surrounded by five-story buildings on the side streets, and a nine-story block on the avenue designed to reinforce the street edge and match neighborhood building heights. The project also proposes major improvements to the 50th St. subway station. Completion date is 1988.

2a, b Legal and Communications Center, Newark, N.J. *Architects: The Grad Partnership, Newark, N.J.* The master plan for this multiphased office, hotel, conference, and retail center on the deteriorated Passaic riverfront was prepared for the Port Authority of New York and New Jersey and the Newark Economic Development Corporation. The Port Authority has agreed to put \$40 million into the project, and to make mortgage money available to prospective tenants in order to compete with cheaper suburban

offerings. A \$10.9 million Urban Development Action Grant will fund construction of a 500-car garage at the base of the structure. The complex will also benefit from Newark's excellent transit network. For phase one, the Grad Partnership has designed a 15-story lozenge-shaped office tower of glass curtain walls on a granite base.

3 Dormitories, University of Illinois at Chicago. *Architects: Solomon Cordwell, Buenz & Associates, Chicago.* Housing for 1000 students in linked four- and five-story buildings will be the first residential facilities on this vast urban campus, built in the 1960s and 1970s as an all-commuter institution. The new buildings (white in model) will stand at the northeast corner of the campus—nearest to downtown—their paired turrets and linking bridge forming a kind of gateway. Angular plans and faceted roof monitors recall the "Field Theory" design of many buildings on campus—such as the architecture school, lower left in model—carried out under Walter Netsch of SOM/Chicago.

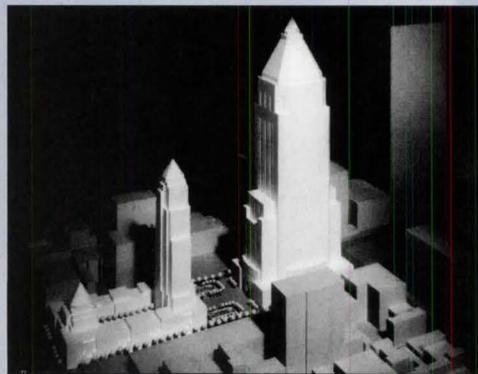
4 Aaron Copland School of Music, Flushing, N.Y. *Architects: Marquis Associates, San Francisco, Calif., design; Wank Adams Slavin Associates, New York, construction documents.* This 125,000-square-foot music school for Queens College includes a 500-seat recital hall, music library, and rehearsal and teaching facilities organized around a central atrium. Construction of the \$20 million complex will begin in 1986.

5a, b, c Groupe Scolaire 12, 16, Paris. *Architects: Jean-Paul Viguier, Jean-Francois Jodry & Associates with SOPRA, Paris.* This renovation and expansion of an elementary school in Paris concentrates all new construction midblock. The new wing includes five classrooms, a dining

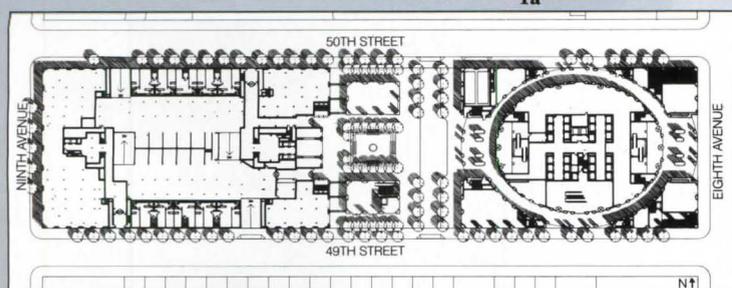
Two mixed-use developments occupying key downtown locations and four educational institutions are shown in this month's In Progress section.

room and kitchen, and small apartment. The central circulation ramp lines a semicircular outdoor amphitheater. Construction starts this month with completion due in April 1987.

6 Fine and Performing Arts Center, Lewiston, Maine. *Architects: The Architects Collaborative, Cambridge, Mass.* Scheduled for completion in the fall of 1986, this 46,000-square-foot, \$4.3 million arts center at Bates College houses a 300-seat performance hall, music and art studios, faculty offices, classrooms, and an art gallery.



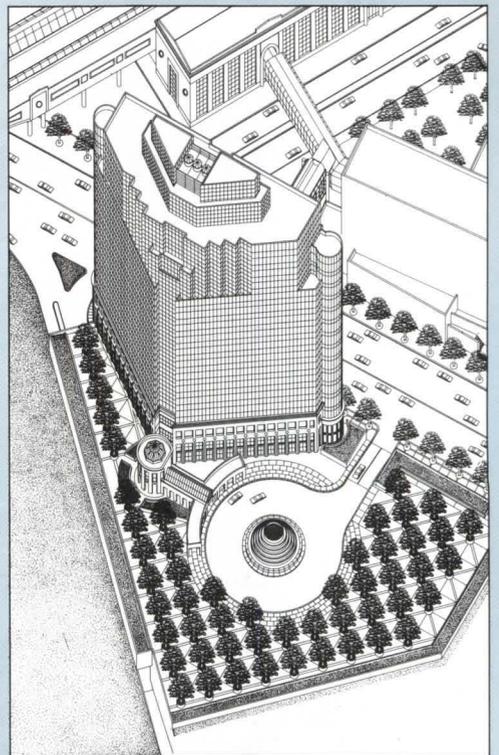
1a



1b SITE PLAN



2a



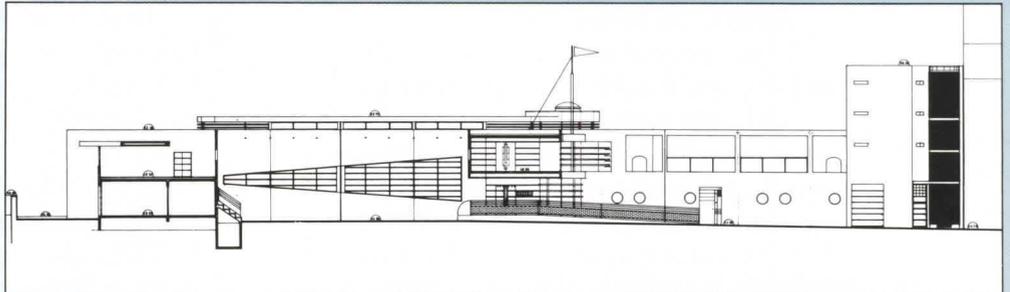
2b PHASE ONE OFFICE TOWER



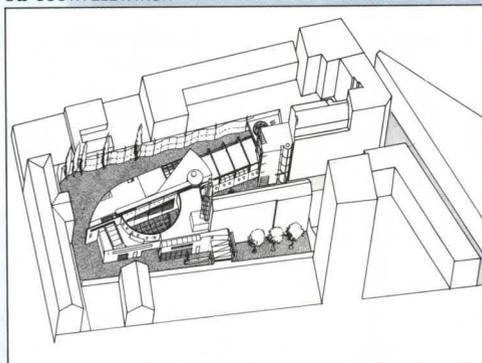
3



4



5a SOUTH ELEVATION



5b



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Exhibits

January 8–March 8

The Critical Edge: Controversy in Recent American Architecture. University Art Museum, Berkeley, Calif.; also **May 8–June 8**, Nelson Atkins Museum, Kansas City, Mo.

January 15–February 23

Profit by Design. Design Centre, London.

Through December 20

Masterpieces of Time: Wendell Castle. Alexander Milliken Gallery, New York.

Through December 22

Design Review. The Design Council, London.

Through December 24

European Architectural Drawings: 18th–Early 20th Century. Stubbs Books and Prints, New York.

Through December 28

Building Our National Image: Architectural Drawings for the American Republic, 1789–1914. National Building Museum, Washington, D.C.

Through January 1

Arthur Erickson: Selected Projects. Vancouver Art Gallery, British Columbia.

Through January 3

Garden and Campus: The Landscape Architecture of Beatrice Farrand. Gund Hall Gallery, Harvard GSD, Cambridge, Mass.

Through January 4

Michael Graves and Robert Venturi: Architectural Prints, Drawings and Household Objects. John Nichols Printmakers and Publishers, New York.

Through January 5

John Ostell: Architect, Surveyor. McCord Museum, McGill University, Montreal, Canada.

Through January 5

Alvar Aalto: Furniture and Glass. Chateau Defresne, Montreal Museum of Decorative Arts, Montreal.

Through January 5

David Hertz: Concrete Furniture. The Schindler House, Los Angeles.

Through January 15

150 Years of Chicago Architecture. Museum of Science and Industry, Chicago.

Through January 19

Contemporary Landscape—From the Horizon of Postmodern Design. National Museum of Modern Art, Tokyo

Through January 25

Time Object. Gallery 91, New York.

Through January 31

Establishing a Threshold: Twelve Architectural Practices in Boston. Bank of Boston 36th Floor Gallery, Boston.

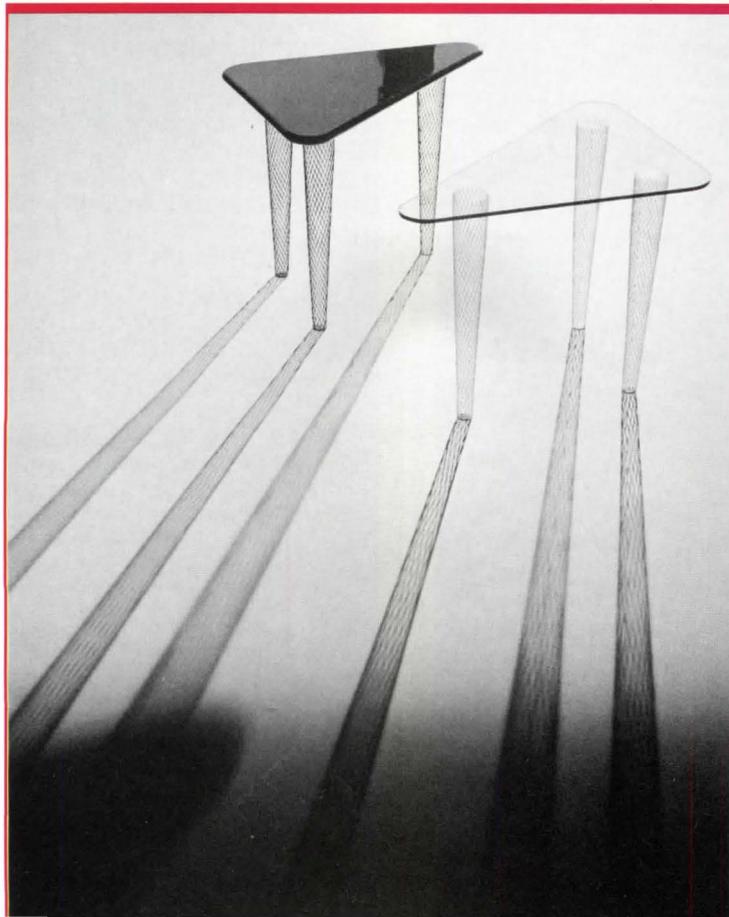
Through February 16

High Styles: 20th Century American Design. Whitney Museum of American Art, New York.

Through April 6

The Architect and the British Country House. Octagon Museum, Washington, D.C.

Shiro Kuramata, Tables, 1985, National Museum of Modern Art, Tokyo, through January 19.



Competitions

January 1

Postmark deadline, Aluminum Extrusion Design Competition. Contact Aluminum Association Inc., 818 Connecticut Ave., N.W., Washington, D.C. 20006.

January 15

Entry deadline, Wilkhahn Universal Chair Competition. Contact Wilkhahn Marketing, C.A. Sautier, Postfach 2070, D-3252 Bad Münden 2, Federal Republic of Germany.

January 16

Submission deadline, P/A's Sixth Annual International Furniture Competition. See page 00 for information and entry form.

January 20

Registration deadline, Minnesota Capitol Landscape Design Competition. Contact Kenneth W. Paolini, P.O. Box 306, Prudential Center, Boston, Mass. 02199 (617) 266-8756.

February 1

Submission deadline, Behind Closed Doors: Young Architects Forum. Contact The Architectural League, 457 Madison Ave., New York, N.Y. 10022 (212) 753-1722.

February 15

Postmark deadline, Milan Triennale Student Competition, The Architecture of the Office Space. Contact Technische Hogeschool Delft, Dept. of Architecture, Room 8.09, Berlageweg 1, 2628 CR Delft (Netherlands), Attn: Prof. A. Tzonis.

Conferences

January 3–5

Better Color in Graphics and Design Workshop. Washington, D.C. Contact Tom Martineau, School of Architecture, Florida A & M University, Tallahassee, Fla. 32307 (904) 599-3244.

January 6–10

Second Century of the Skyscraper. Hyatt Regency, Chicago. Contact Chicago Committee on High-Rise Buildings, % SOM, 33 West Monroe St., Chicago, Ill. 60603, or Council on Tall Buildings and Urban Habitat, Building 13, Lehigh University, Bethlehem, Pa. 18015.

January 9–13

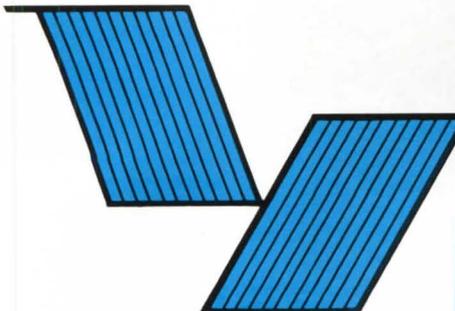
Paris International Furniture Exhibition. Parc des Expositions, Porte de Versailles, Paris. Contact Commissariat Generale, 22 avenue Franklin-Roosevelt-F, 75008 Paris, France.

January 14–19

International Furniture Fair Cologne. Cologne, Germany. Contact Messe- und Ausstellungs-Ges.m.b.H. Köln, Messeplatz, Postfach 2107 60, D-5000 Köln 21 (Deutz).

January 29–31

CONDES '86. Dallas Market Center. Contact Dallas Market Center, 2100 Stemmons Freeway, Dallas, Texas 75207 (214) 655-6100.



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Entries will be judged by a panel of distinguished architects and awards will be based on the combination of esthetic expression, functional suitability, engineering excellence and economy of use.

Deadline for requesting the information kit and entry forms is February 28, 1986. Write Follansbee Steel Corporation, P.O. Box L, Follansbee, WV 26037, attention Mr. Jay Carey.

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Specifications: Walter Rosenfeld
Computers: Allan Ackerman

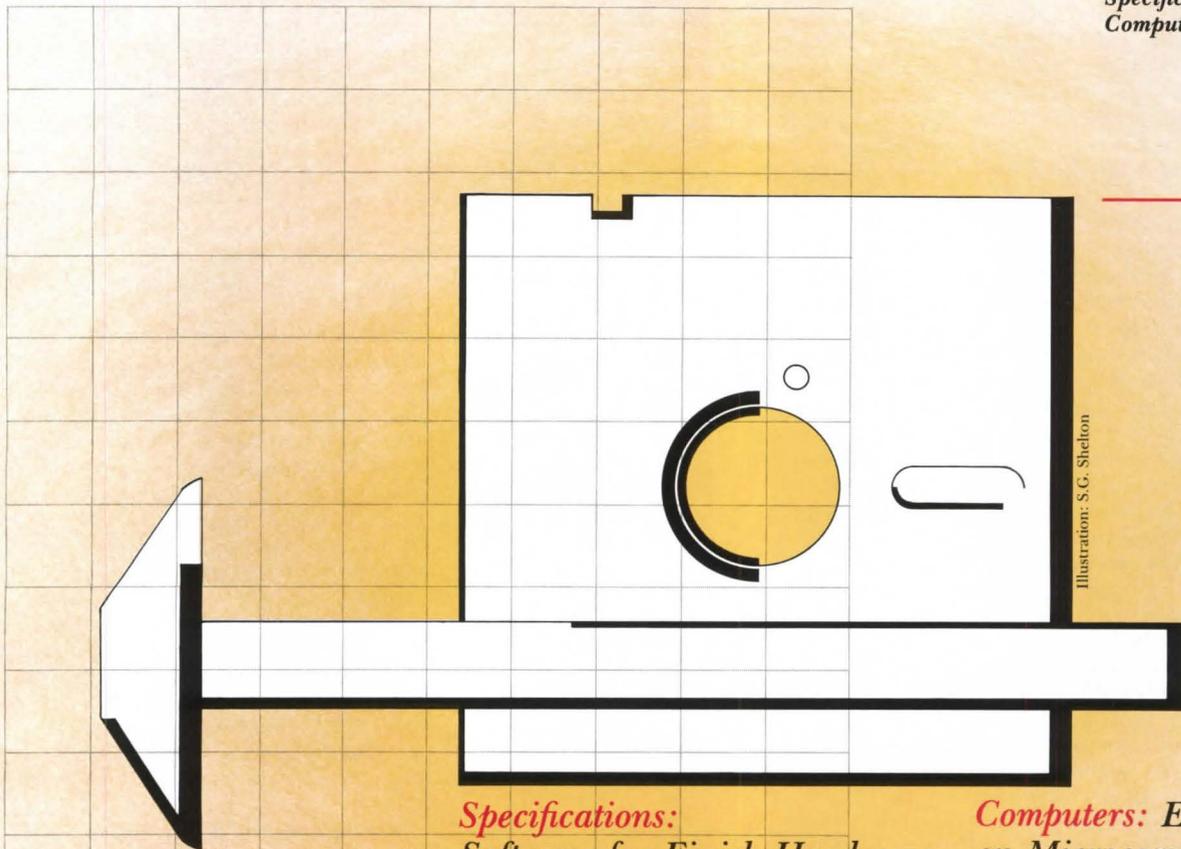


Illustration: S. G. Shelton

Specifications: Software for Finish Hardware

Although many architects have enough interest and experience to select and specify hardware for the private homes they design, few architects or specifiers have the extensive and detailed knowledge to write finish hardware specifications for a major institutional or public building. As a result, they seek help from experts in the hardware industry, which has designated some individuals with training and demonstrated ability "Architectural Hardware Consultants."

Using hardware consultants makes sense in some circumstances because the best of them possess an extraordinary range of information that can be applied to a project. Not only do they have the expected knowledge of what types, styles, and functions of hardware are available from different manufacturers (together with their features and costs) but they also provide knowledgeable technical support for the decision-making that architects must do in order to have the building operate properly. Consultants' familiarity with building code requirements for doors and their use includes, for instance, hospitals, where decisions are often not simple or trivial.

The need to provide accessibility for the handicapped has affected hardware a great deal in recent years, as has the growing concern with building security—both well understood by hardware professionals. Rapid development of electronic security systems has made the interrelationship of mechanically operated door equipment like locks and

[continued on page 46]

Computers: Energy Modeling on Microcomputers

Is energy modeling software at a point yet where it can be called a design tool? Before answering that, let's consider the history of energy software. For at least ten years, HVAC engineers and technically oriented architects have used computers to analyze and simulate energy use in buildings, first using mainframe computers, and then minicomputers and microcomputers.

The software itself, concentrated initially on the later stages of the design process, on HVAC equipment sizing and system design and specification, and not on the prediction or simulation of a building's energy performance. Yet, as microcomputer costs have come down and energy-conscious design has been accepted by architects, there has been a substantial increase in the amount and quality of microcomputer software for energy simulation.

At the same time, the computer and energy literacy of architects has risen so that they are better able to use computers, and to use energy information responsibly at an early stage of the design process.

The goal of energy software is to move energy considerations as close to the early stages in the design process as possible. Do the currently available software allow the architect, in close collaboration with the HVAC engineer, to perform rapid energy calculations of schematic designs? Does it produce output that is legible and attractive, perform simulation of alternatives in less than an hour, accelerate a designer's experience in

[continued on page 46]

Specifications [continued]

closers, with electric functions like smoke-detectors and hold-opens, much more than routine.

Active hardware consultants keep up with new developments such as card-activated locks, keyless entry devices, and video security systems that, electronically, or otherwise, may help to solve old problems. As "electronification" of buildings proceeds during the next few years, architects will lean more heavily on hardware consultants for advice and specification help.

In using hardware consultants, however, there are some problems that ought not to be ignored. Question: Are consultants paid professional members of the architect's project team or are they providing "free" advice in hopes of getting the contract to supply the specified materials? This may pose no problem on negotiated private work, but for projects that are publicly bid the question is important, because many architects see an inherent conflict of interest in having a firm or person specify the hardware and then bid to supply the same materials. Even Architectural Hardware Consultants may be tempted under these circumstances to "tilt" the specifications toward the products their firms carry or have in stock, and to include items whose price advantage to the writer makes an eventual low bid less uncertain.

There's also concern that lawyers, legislators, or public authorities may suspect some sort of collusion when consultant-specifiers bid on documents they have prepared. There is more than a moral dilemma here for architects and legislators, because, conflict of interest aside, architects who cannot write their own hardware specifications and choose not to rely on hardware consultant-suppliers from within the industry have few other choices.

But what about the independent consultant who has no hardware to sell? The possibility of making a reasonable living is not very good. The number of commissions available, particularly outside larger cities, and the acceptable fee level for this work make it generally unattractive to the best people in the field. Consultants who are non-bidding advisers also may be out of date, may lack factory contacts, and may be at the periphery rather than at the center of the business. Samples, pricing data, computer aids, and "pipeline" information may just not be available to them.

An obvious solution to the dilemma has been to spread the work among different suppliers' Architectural Hardware Consultants for different projects and to prohibit the actual specifier on any one job from bidding that particular project. This seems to offer the best of both worlds: it provides actively involved industry members who have no stake in tilting the specifications in any direction because they won't be bidding on it. If the architect and the consultant can agree to this, public authorities shouldn't object. In this case, hardware consultants should certainly receive a fee for their time and effort. And as a consolation, the architect's next job offers a way to make up for the supplier's missed bidding opportunity.

In spite of legislators' tendency to suspect collusion, there is often no reason for it.

After specifying a mortise lock system for a public building a few years ago, an architect was approached by a local hardware supplier who contended that his rival, who had written the hardware section for the project, should have carried an alternate for a cheaper cylindrical lock system. (The supplier didn't carry a mortise lock at all.) The architect agreed. When hardware bids were opened, the writer of the specifications was not the low bidder on the base bid on the mortise lock; but he was low bidder on the cylindrical lock alternate. Without the unanticipated alternate, the writer would have lost the job.

Whether the needed hardware consultant is a supplier, a nonbidding consultant, or an excluded dealer, the specifier is still responsible for the results. No matter who writes the hardware section, the project specifier must still establish the format, convey the owner's desires, and establish the rules (Part 1 of the Section). There is much to be done in coordinating hardware, doors, and frames within the requirements of codes and functions, both on the drawings and in the specifications, and the hardware consultant as a team member can play an important role in the process. **Walter Rosenfeld, AIA, CSI** ■

The author is a principal of The Architects Collaborative in Cambridge, Mass.

Computers [continued]

energy-related issues, and produce code compliance reports? No, but it is closer than before.

What's Available

There are a lot of programs available: the AIA's "Energy in Architecture" coursebook alone lists 84 of them. And because the market, in total dollar volume, is relatively small, the quality of energy software is lower than that for other, broader, applications. This does not affect accuracy, but it dramatically affects other issues such as documentation.

The current offering of energy software can be quickly categorized into two groups, according to its complexity (the number of is-

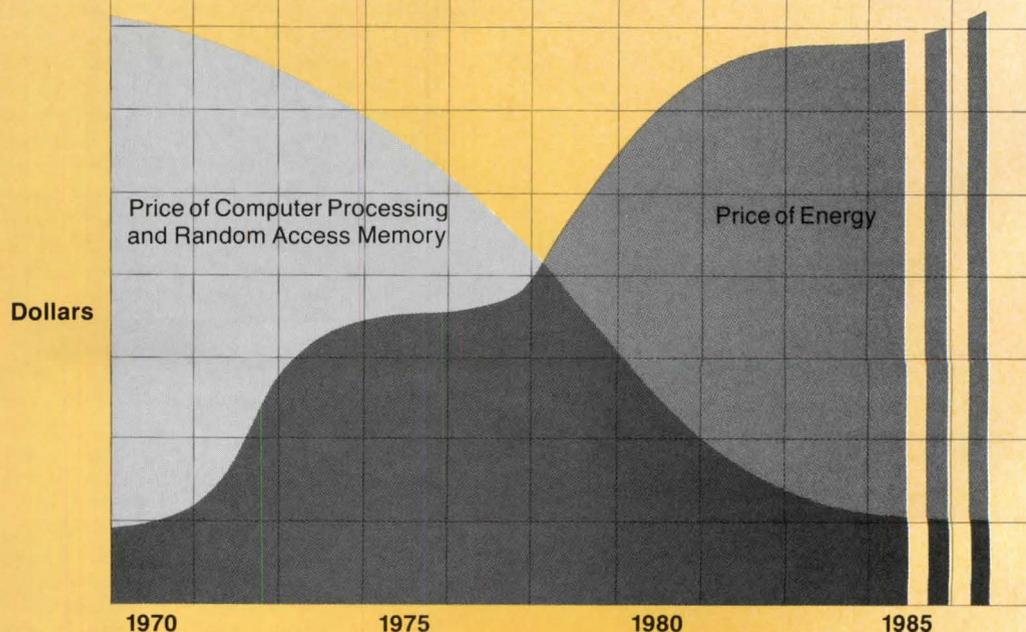
issues such as solar, daylighting, control systems, fuel costs, and utility rate structures that it can handle; the amount of input required; and the relative accuracy and complexity of the output) and its application (for residential and small commercial buildings that are envelope and solar dominated or for large commercial buildings that are systems dominated). Residential programs exist, for example, that are far more complex than simple programs for modeling commercial buildings. As Joe Deringer of The Deringer Group says, "You either have very simple tools that don't handle very many variables, or you work with something sophisticated, thus driving up your learning time—not only of the tool, but of the assumptions behind the tool."

If you are relying on your software to help make decisions at the schematic level, relative accuracy is more important than absolute accuracy. As the software becomes more complex, it often becomes more accurate, and some surprising truths begin to appear. "As you change any input variable, from glazing to fan size," for instance, says Drew Gillette, an expert in energy modeling, "peak load may move one way and annual load the other."

Responsible knowledge of the assumptions and methods underlying an energy software tool is therefore an issue. If you are an architect, energy software will relieve you of the tedium of calculation, but not of the requirement to understand the information the program requires at input and produces at output.

For this reason, a less complex tool—one that will compute design loads but not annual loads—makes a better starting point for an office that is new to this area. The formulas and assumptions are simpler and the new user is more likely to build a base of energy design knowledge responsibly rather than simply becoming proficient at running a complex software package. Two examples in this category are HeatCool from James Jordan and ReEnergy from Raymond Reed.

Pegsheets, from the Princeton Energy Group, takes another approach. It has a set



THE PRICE OF ENERGY AND THE PRICE OF ENERGY DESIGN

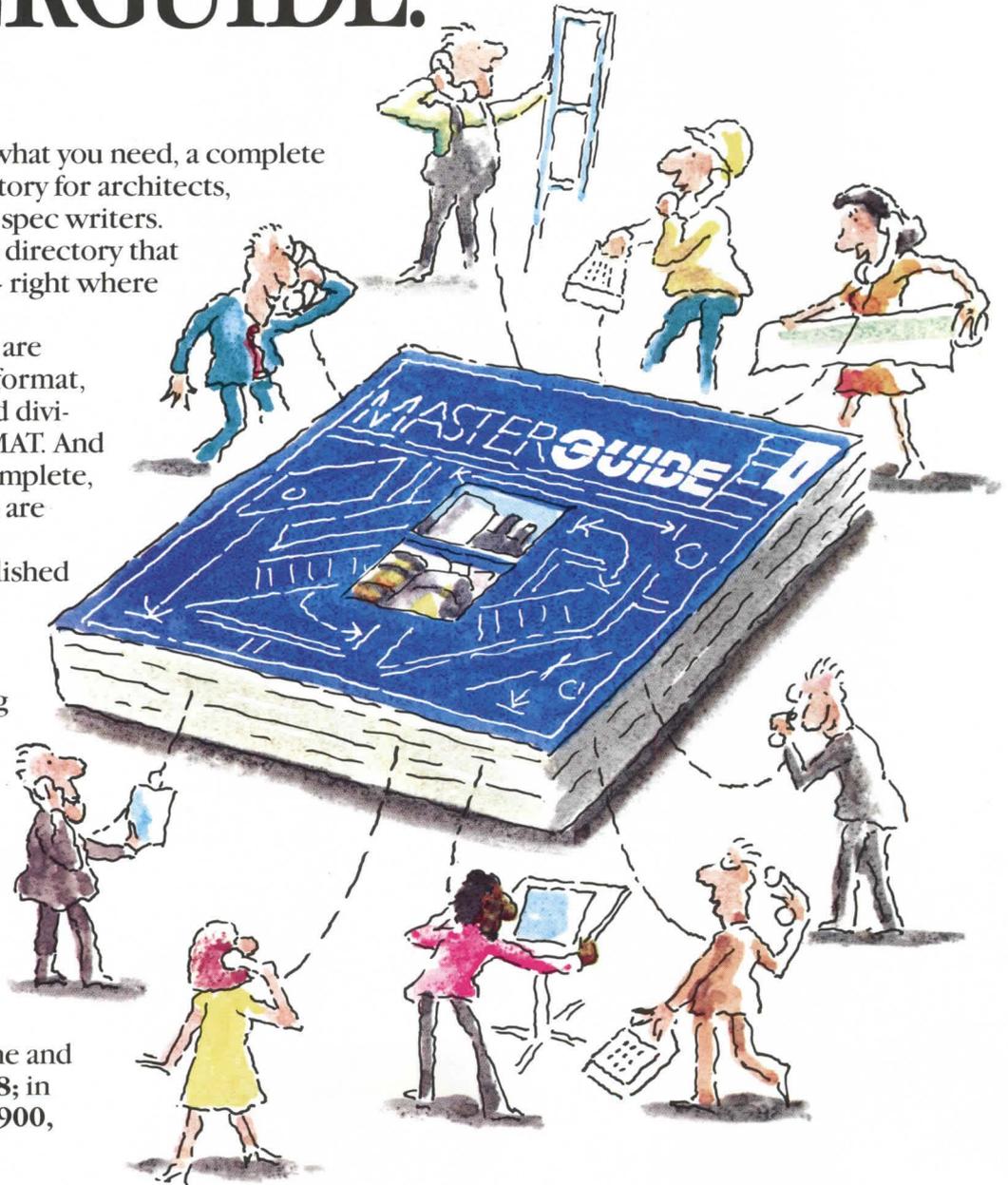
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of spreadsheet templates that perform a variety of energy-related functions, from heating and cooling load calculation to economic analysis, on the IBM PC machine. Its advantages are that the formulas used in performing the calculations are available on the screen when you record the relevant data, so that you know exactly what computations are being performed. Also, any energy tool that is a template spreadsheet gives access to the graphics capability of nearly every popular spreadsheet tool.

For a residential designer who is confident of energy issues and needs only a cost-effective compliance report for the building department, programming templates onto a microcomputer spreadsheet to support equipment sizing decisions may be sufficient. Dennis Davey, principal in a Connecticut firm, has done just that on Apple's Lisa. The firm uses its energy spreadsheet program not for design, but for compliance reports.

Some energy software caters heavily to the rehab/retrofit market. Two of these are Trakload from Morgan Systems, capable of handling systems-dominated commercial buildings, and EEDO from Burt Hill Kosar Rittelmann Associates, capable of handling residential energy design problems. These products produce reports specifically oriented to retrofitting decisions, which also makes their output excellent in displaying the analysis of design options for new construction.

Some software, such as F-Chart and CALPAS-3, has been around for a while. It has the disadvantage of not representing current knowledge in either energy simulation or software engineering, but has the advantage of reliability and of an established user group. Recent entries to the field, such as ADM-2 from ADM Associates, represent advances in the precision of their simulations or advances in software engineering, such as Trakload. But these products have not yet earned a reputation for reliability.

F-Chart and F-Load from F-Chart Software allow the quick determination of energy loads and optimal solar designs in residential single-zone buildings, while EEDO, useful for the same purpose, also handles and delivers more complex information, particularly in the area of infiltration. CALPAS-3 is very fully featured and well known, but soon will be superseded by CALPAS-4.

In short, no one software tool, no matter

how expensive, is appropriate to the full range of energy-related problems.

Key Criteria

What are the important measures of quality in energy software? One of the most important is catching input error. One of the best programs in this area is Trakload. Besides having an error-trapping function, it provides default values for data that won't be known until later, if ever. Also, if a change in one item might change others, the program indicates the changes and supplies the proper values if you want them.

On the output side, the more graphic the output, the more powerful the software will be as a communications tool. This is among the most expensive areas of software design. Both Pepsheets and Trakload make their output compatible with Lotus 1-2-3's spreadsheet graphics, but every software product should adopt graphic features.

Conclusion

Recall the goal: software that could be used by building designers at the early stages of the design to help make appropriate energy-related tradeoffs. "Energy," says Bill Borner of Harvard's Graduate School of Design, "has forced a design team representing architecture and mechanical engineering to convene at the schematic and design development level." Yet this is rarely the practice because of the newness of computers, the newness of this software, and the costliness of entering data, waiting for the calculations, and interpreting the output. Except in research settings, software tools have often been used to report decisions made to code authorities, not to explore design alternatives. The tradition of specialization of mechanical design from architecture also helps to prevent easy collaboration, except in integrated offices or in residential passive solar architecture.

There are, however, two developments that represent promising areas of change. CALPAS 4.0, the successor to CALPAS 3.0, is likely to have a graphic input processor, so that instead of entering long lists of dimensions, you can draw your building on the screen. Spreadsheet templates, too, may ease basic energy work, as a mediator between programs. Harvey Bryan and Steve Lotz of MIT's Department of Architecture have used a spreadsheet in passive solar design as

a data link between a relatively simple Solar Load Ratio tool, SOLPAS, and an hourly thermal network simulation program, CALPAS 1.0. Their work also has involved extracting data from an AutoCAD file as an input to one of the energy analysis programs.

There is a broad offering of energy software tools now available at reasonable prices. While they haven't fully integrated energy analysis with design and drafting, they still offer benefits in documenting code compliance, exploring design alternatives, and improving energy design education. If nothing else, their use will position you well for the future because, whether the energy price rise is gradual or steep, it is coming.

Allan Ackerman

The author has an architecture degree from Harvard and has worked as a manager, marketing consultant, and teacher in the area of software applications for architectural and engineering professionals for the past six years.

Sources of Information on Energy Software

- ADM-2, ADM Associates**, 3299 Ramos Circle, Sacramento, CA 95827.
- CALPAS-3, Berkeley Solar Group**, P.O. Box 3289, Berkeley, CA 94703.
- EEDO, Burt Hill Kosar Rittelmann Associates**, 400 Morgan Center, Butler, PA 16001.
- F-Chart and F-Load, F-Chart Software**, 4406 Fox Bluff Road, Middleton, WI 53562.
- HeatCool, James J. Jordan Sr.**, 5236 Overbrook Way, Sacramento, CA 95841.
- Passive Solar Design, J. Wiley, John Wiley Professional Software**, 605 Third Avenue, New York, NY 10158.
- Pepsheets, Princeton Energy Group**, 575 Ewing Street, Princeton, NJ 08540.
- ReEnergy, Raymond D. Reed, AIA**, Box 9863, College Station, TX 77840.
- SLR Passive Design Program, Alternologies**, Box 1008, Fort Collins, CO 80522.
- Sunpas/Sunop, SolarSoft**, 1406 Burlingame Ave., Suite 31, Burlingame, CA 94010.
- Trakload, Morgan Systems Corp.**, 1654 Solano, Suite C, Berkeley, CA 94707.

Daylighting Design Tools

- Daylite, SolarSoft**, address above.
- CADLight I, John Wiley Professional Software**, address above.

Information on the Use of a Spreadsheet to Link Microcomputer-based CAD Files, and Public Domain Energy Analysis Software

- Designers Software Exchange, Laboratory of Architecture and Planning, MIT**, 77 Massachusetts Avenue, Cambridge, MA 02139.

More Complex

EEDO

CALPAS-3

ADM-2

Trakload

F-Load

Pepsheets

Less Complex

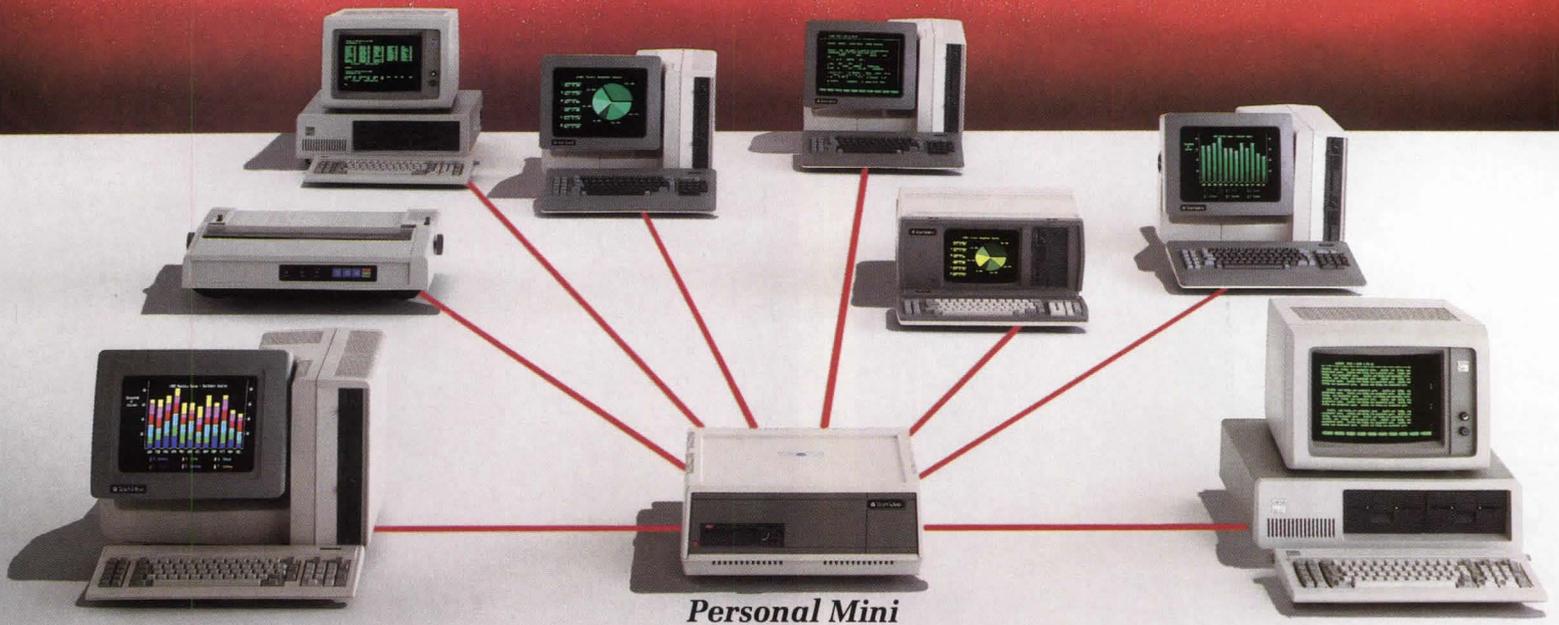
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A Quiet Union

Hammond Beeby and Babka, consulting architects, with Joseph Casserly, City Architect, draw on numerous sources to create a regional library in Chicago, a 1983 P/A Awards winner.

THE Conrad Sulzer Regional Library, recently renamed after the Ravenswood area's first settler, replaces the nearby Hild Library building, one of two regional facilities in Chicago's public library system. The 1929 building, half as large as the 65,000-square-foot structure replacing it, was much loved. It is being converted into a neighborhood arts center, but some of its features have inspired aspects of the new library.

While German Neoclassical themes inform the organization of the new building's exterior—an appropriate choice, given the German origins of the neighborhood's first settlers—the organization of the structural systems is purely Modern—pure “Chicago,” and pure “Mies”—and so expressed. And it is the application of principles from that most famous of pre-Modern libraries, Ste. Genevieve, that allows the architects to bridge the distance between the two contemporary themes of our day—Post-Modernism and Modernism (see p. 54).

The building's most thrilling aesthetic event occurs at the reading room level. As light floods into the expansive, 20-foot-high space through large gabled windows and skylights, the experience is purified: There is light, space, and the march of broad dark columns, like trees, supporting the rational white metal roof, as clouds form shifting scenes in the long glass strips above.

Intellectually, the finest move is the interpenetration of the two floors, which occurs most dramatically in the lobby, but at the stairway/circulation desk as well. In the lobby—in a move reminiscent of James Stirling's more elaborate transformation of the



Altes Museum rotunda for the Stuttgart Museum (P/A, Oct. 1984, pp. 67–83)—Beeby takes the Classical organizing form of the rotunda, compresses it to an oval, then shoots it through the floor above. The circulation desk mass, which gives views up to the second floor through an arched opening, is not quite as elegantly integrated.

The building's exterior is a quieter achievement. It is satisfying for its organization in relation to historical examples (see p. 54), for the thickness of its base (see p. 52), and for the hint that its gabled windows—standard industrial forms within the traditional brick façade—give of the industrial materials within. Aesthetically, its best as-

pects are its rounded south end and its delicately achieved historical allusions in steel—its “acroteria,” and its textured (through standing seam roofing) skyline.

The building's most difficult task was the reconciliation of its urban presence on the street and in the park. While Lincoln Avenue possesses a couple of interesting buildings (the former Hild Library and, most notably, Louis Sullivan's Krause Music Store) it does not have a distinctive street wall/width ratio. When one side of the Avenue becomes park, as it does across from the Library, the street character disintegrates, and the relationship of the library to the commercial street, despite similar wall heights, becomes tenuous. Furthermore, the park is quite large—diminishing the monumentality of the long, low, dark building—and its landscaping is casual, with no axis emphasizing the centrality of the library's modestly projecting entrance. As the trees along the street grow fuller, this situation will improve. Still, when viewed from within the reading room, the park's casual nature fails to reconfirm the building's frontality.

Despite these flaws, the Sulzer Library bears close examination. At a time when Post-Modernism seems shallow and Modernism inarticulate, the architects have managed to explore meaningful aspects of each, and marry them successfully. The achievement is no less convincing in that it is quiet.

The building is shown through photographs and drawings on the following pages. Also included are discussions of “Precedents and Descendants” (p. 54), “Justifying Poché” (p. 58), and “Furniture, Art, and Architecture” (p. 60). *Susan Doubilet* ■

**Conrad Sulzer Regional Library
Chicago**



The two-story building's long front facade (above and right) extends the street wall of Lincoln Avenue, the main commercial street of the community. At the central entrance (above and preceding page) the brick base is thickened and a large, gabled second-floor window gives views westward to the park across the street. The southern end (far right) is semicircular, presenting the aspect of a pavilion in a park to those driving northward up Lincoln Avenue, a diagonal artery leading

from central Chicago. The scale of the rear façade (far right) is adjusted to the residential settlement it faces through massing—a "bustle" containing services and offices is added—and through less monumental fenestration. A tower on the rear (east) side plays an important visual role, despite its utilitarian function as stair and cooling tower. It provides a marker as one progresses up the Avenue, as well as a key asymmetrical element in the nearly symmetrical composition.





Precedents, Descendants

In seeking to reflect the ethnic origin of the neighborhood's early settlers, the architects looked to German Neo-classical public buildings of the 18th and early 19th Centuries by Schinkel, von Klenze, and others. Specifically, Beeby cites the Arsenal, Berlin, 1695–1706, by architects Nering, Grunberg, Schluter and de Bodt (fig. 1). One can clearly see, in the Sulzer Library, the Arsenal's expressed masonry base, punctuated with deep arched openings, standing on a stone sill; the more recessed, smoother, and taller upper story with pilasters between its bays; and the projecting, gabled, central entrance bay.

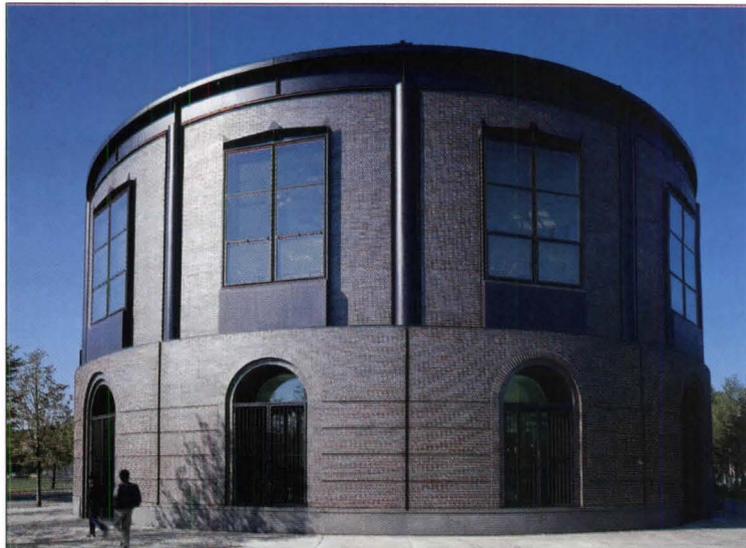
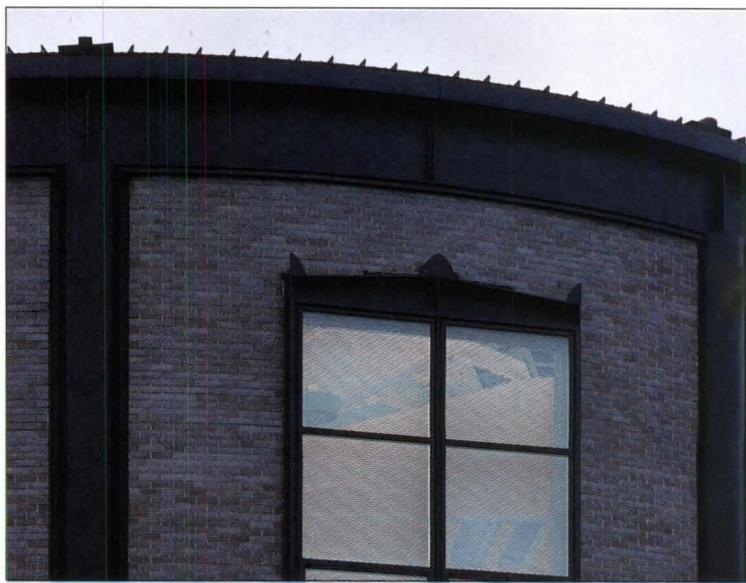
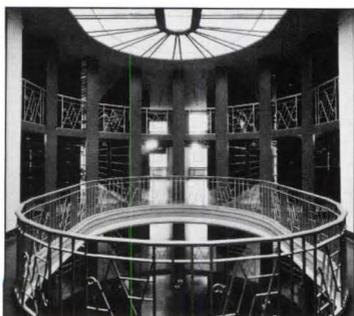
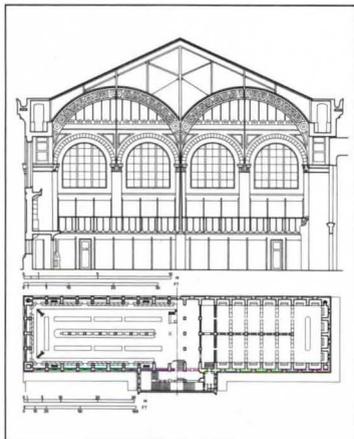
For the organization of the library and the attitude towards materials, the architects looked to Henri Labrouste's *Bibliothèque Ste. Geneviève* of 1845–50 (figs. 2, 3). Among the aspects echoed in the new building are: the symmetry; the long plan with the "bustle" on its rear; the tall, naturally lighted, monumentally scaled second-floor reading room with its central line of cast-iron columns; and the pre-Modern attitude towards materials—prefabricated metal exposed in the structure and roof of the reading room, conservative masonry envelope.

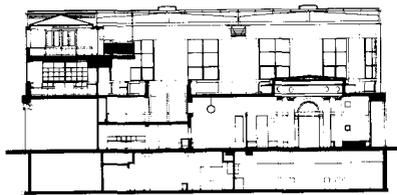
For the disposition of materials, the architects exploited Chicago's fire code—as did Mies van der Rohe—which permits an exposed roof structure when the roof is 20 feet above a totally fireproof ground story.

Beeby and Langdon also looked to the earlier Hild Library (figs. 4, 5, 6) built in the late 1920s: the semicircular wing, the elliptical glass-covered space that pierces through the lobby to the second floor.

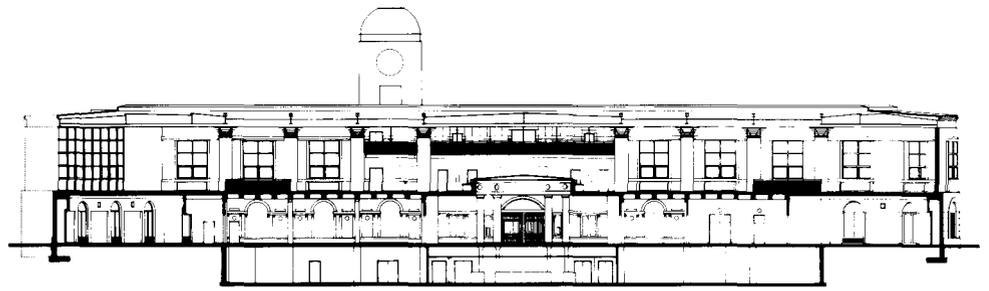
The Sulzer Library's elliptical lobby repeats a motif (seen also in the firm's North Shore Congregation Israel Synagogue of 1982) that Beeby attributes to Louis Kahn: a figure embedded within a larger figure, giving a reading of great thickness while still utilizing the intervening spaces (see also p. 55).

How can the office afford to devote so much time to the design development of one building? By re-applying lessons learned, Beeby explains. He had explored ways of justifying massive walls in the second Chicago 7 Townhouses show of December 1977; and he had designed two pedimented steel office structures (unbuilt). The ideas were further refined in the Sulzer Library, and from there were applied to the recently completed American Academy of Pediatrics, a building that was economical in terms of design time.



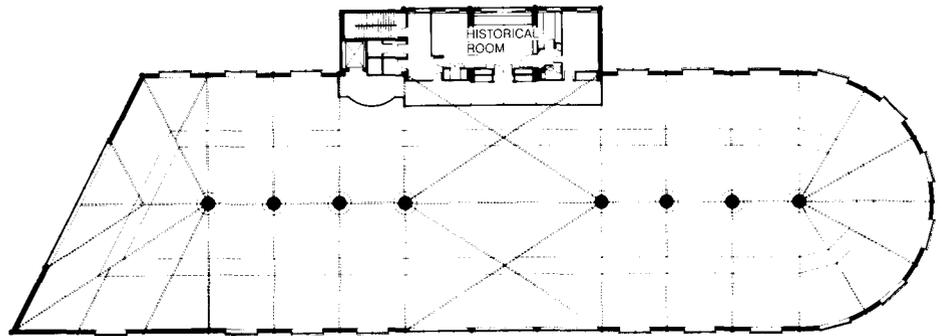
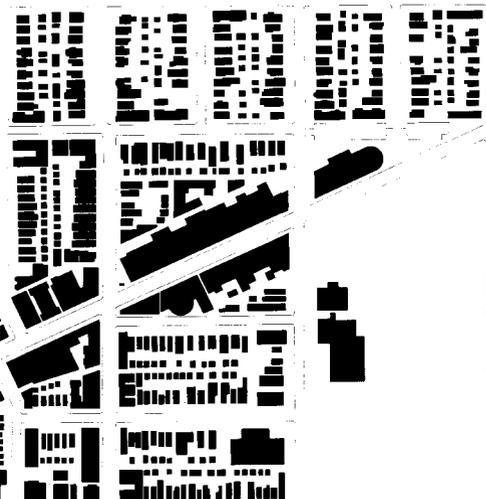
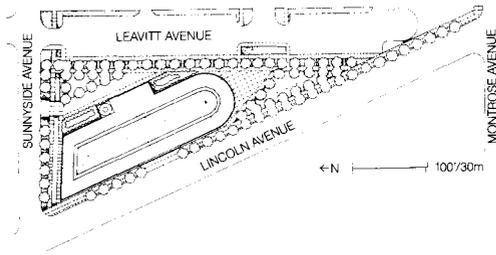


SECTION LOOKING SOUTH

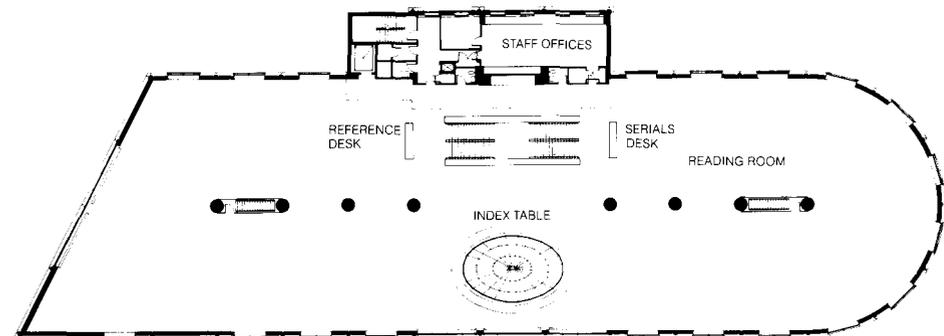


SECTION LOOKING EAST

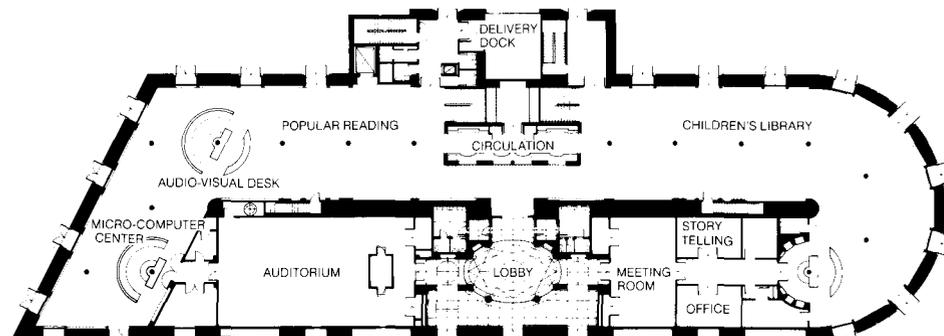
40/12m



MEZZANINE



SECOND FLOOR



GROUND FLOOR

40/12m

The rounded south end of the building (facing page, right), like its other façades, possesses features that relate in some way to historical precedents: the thick, "rusticated" brick base standing on a granite sill, with reveals between the bays; the set-back second story, with semicircular steel coverplates over real steel columns (compare Mies van der Rohe's metaphorical steel "columns"); the steel "acroteria" on the second-story window "pediments" which have a 1-in-12 slope to paral-

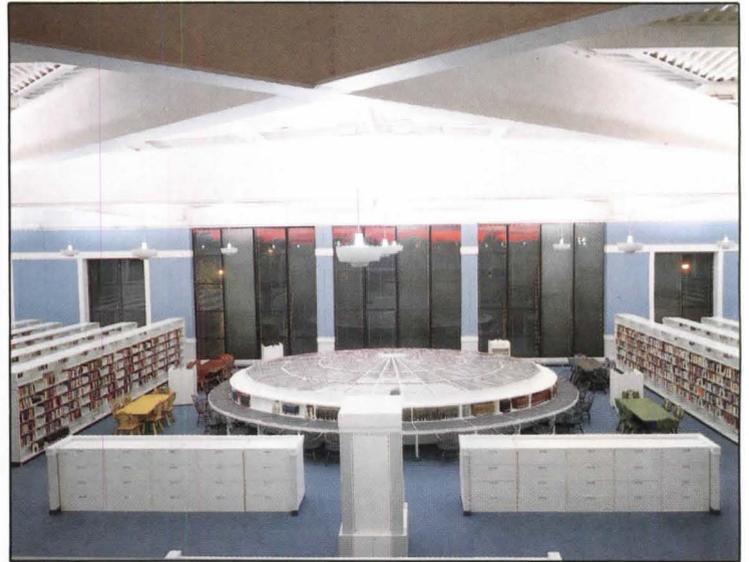
lel the standard industrial steel gables over the large north and west windows; and the standing seam roof that creates a textured profile against the sky.

The site plan (above left) shows how siting and landscaping were used to reinforce the library's dual urban role, as a building along a city street, and as a pavilion in a park. Linden trees are planted regularly along the street edges; on Lincoln Avenue they occur between each bay, except at the central

entrance, where they are eliminated. The trees, when grown and trimmed, will create a continuous canopy with a ceiling about 10 feet high. At the site's corners, notably at the south end, the trees are planted more densely, to reinforce the aspect of park pavilion, especially as seen when approaching from the south. At the southern end of the building is a terrace, with benches and tables to be provided by the community.



Hedrich-Blessing



Hedrich-Blessing



The oval "tempietto" of the lobby (facing page, view looking towards the auditorium), with its glazed ceiling, colonnade, and terrazzo floor, serves as a grand entrance to the library. When the library itself is closed, it can be used, independently, with the auditorium and meeting room, for public functions. Its inspiration is unmistakably Classical, yet it gives a view upwards to the most modern element of the

building, the exposed steel roof structure of the second floor. The skylights, as well as the grand gabled window on the second floor above the entrance, bring light flooding down into the lobby. The oval form, meanwhile, extends into the second-floor reading room and becomes the basis for the index table (above).

Formally, it balances the large double staircase; both are on the building's short axis, and the central columns are eliminated between them. A mezzanine balcony along the reading room's east wall gives access to an exhibition room for local historical artifacts (left photos).

The amount of roof and wall glazing, while modest in the building (24 percent of the surface), is so distributed about the open second-floor reading room as to dispense with

the need for artificial lighting—metal halide uplights, and task lamps at the reading tables—on most days.

Standard steel library shelving was used, but the architects designed wood end panels with a Classical feeling.



Justifying Poché

For a variety of reasons (discussed on p. 54), Beeby and Langdon wanted a thick base wall and a thinner second story. To justify the thick envelope, they developed a mechanical scheme that utilizes the depth of the exterior wall in a number of ways (wall sections, this page). The scheme also utilizes the thick central wall on the ground floor (see plan, p. 55); creates a rationale for the thick steel "columns" that march through the second-floor reading room (drawings, right, and facing page); and eliminates the need for horizontal runs of ductwork through the library's spaces.

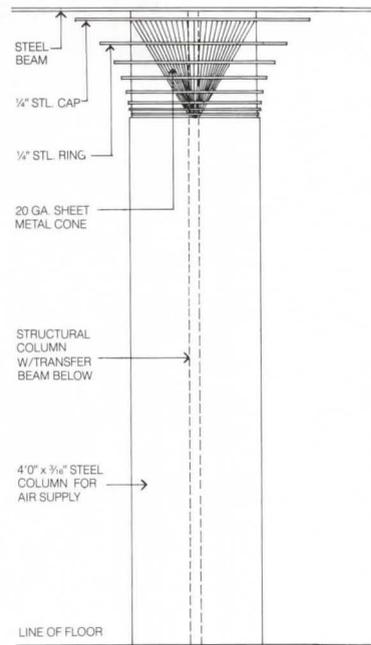
Along the front wall of the building (see west wall section), the arched openings (except for those that act as doorways) have steel grates at their bases allowing air to be taken in or exhausted through chases in the basement wall, behind which, under the ground-floor meeting room and auditorium, lie the mechanical rooms. The need for a visible grille on the exterior wall is thereby eliminated.

Along the inside of the exterior wall (see north and south wall sections), baseboard-level radiators and cornice-level supply registers are usually accommodated within the wall thickness.

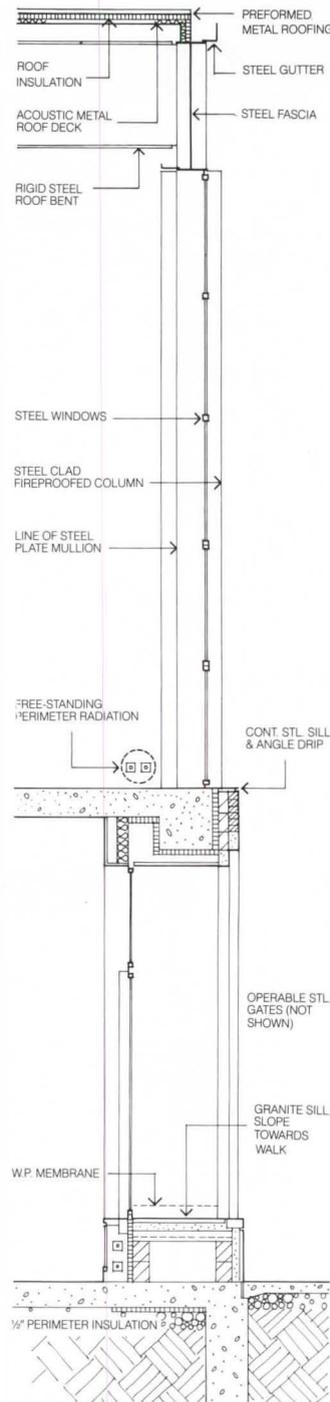
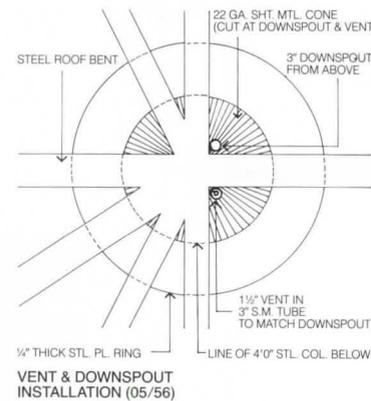
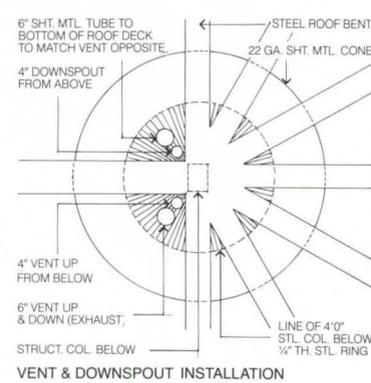
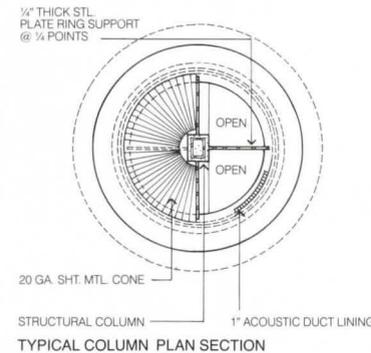
Vertical mechanical runs (see south wall section) occur between the wall alcoves that are used for shelving and the exterior concrete and brick wall behind them.

On the second story (see west wall section), baseboard-level radiators are accommodated within the thin wall section, with insulated formed steel panels covering them on the exterior.

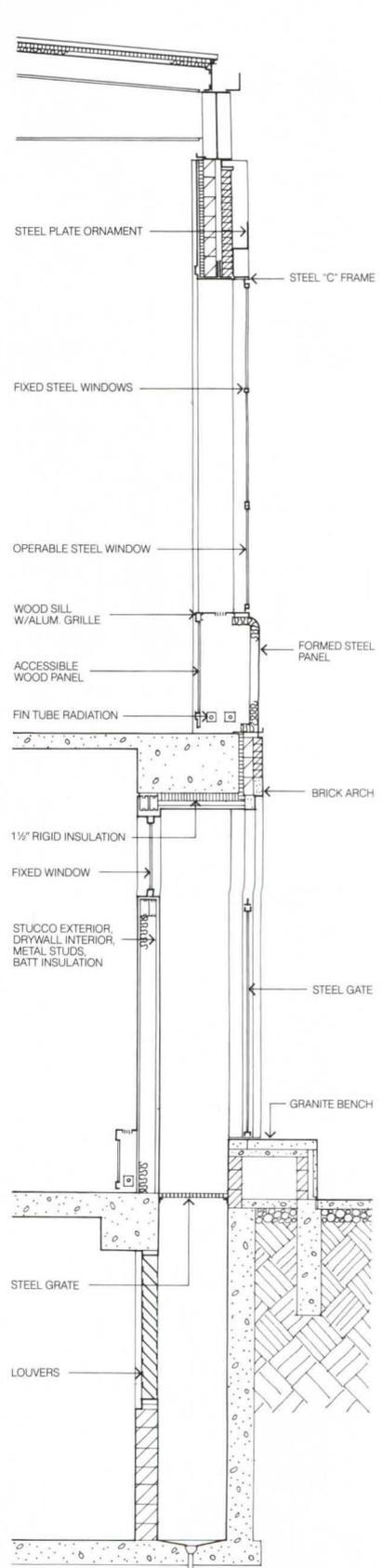
The large round steel jackets of the second-story columns (see column drawings), with their flared and finned capitals, contain, variously (in addition to the structural steel columns at their centers), vents, roof drains, electrical risers, and supply or return air ducts that feed through the ground story's thick central wall, which also contains two emergency stairways.



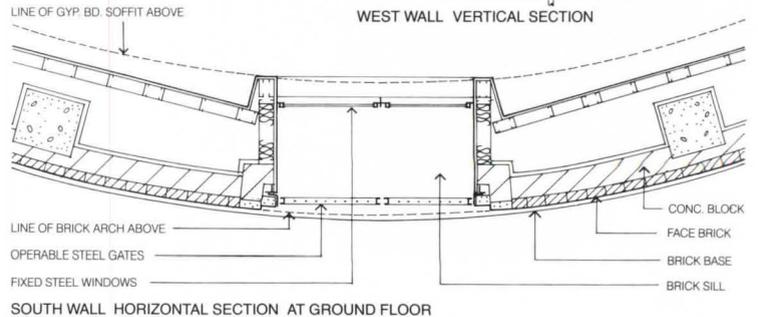
COLUMN ELEVATION



NORTH WALL VERTICAL SECTION



WEST WALL VERTICAL SECTION



SOUTH WALL HORIZONTAL SECTION AT GROUND FLOOR



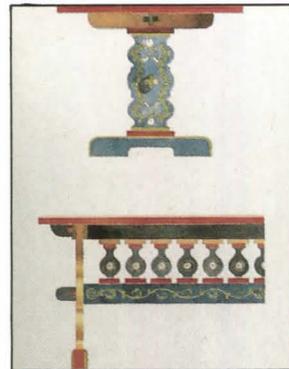
Furniture, Art, and Architecture

Quite early in the design phase, even as Beeby and Langdon were developing a fairly restrained Neoclassical architectural treatment, they knew that they wanted a lighter and folksier vocabulary for the furniture. In addition to specifying Windsor chairs (some new, some taken from the old Hild Library), Langdon developed designs for custom-made tables and chairs that charmed the client. Well before Robert Venturi took a similar approach in his chairs for Knoll, she turned to the idea of using simple slabs of plywood with surface ornament rather than carving, both to save money (she thought) and to perpetuate an Eastern European tradition of painted furniture. Her motifs reflected mid-Western plant and animal forms, as well as mythological themes, and were developed in groups representing the four seasons. She prepared a series of watercolor paintings (shown at right); colors were to be achieved through staining, lacquering, hand-painting, and stenciling.

Bids, however, came in much too high—until a furniture contractor presented his sister, a recent art school graduate who, trained by Langdon herself, was able to complete the furniture (115 painted chairs and numerous tables) within the budget.

As exuberant as the furniture is, by comparison to its architectural surrounding, there is no sense of imbalance. Rather, the objects heighten the visitor's awareness of the more subtle architectural detailing.

Another experiment was carried out in the public rooms—that of the integration of art and architecture. Three artists were chosen under the City's "% for Art" program to prepare murals; three different approaches resulted. In the storytelling room (photo, right), Sandra Jorgensen used the architectural treatment (pilasters, beams, arches) as a foreground behind which she created distant landscapes. In the auditorium, Nicholas Africanos saw the architectural elements as a framework for niches, within which he will place figures from the ballet *Petrushka*. In the meeting room, Irene Siegal incorporated the architecture into her continuous fresco "The Aeneid," a graffiti-like piece to which the community objects strongly, and which is in litigation now.



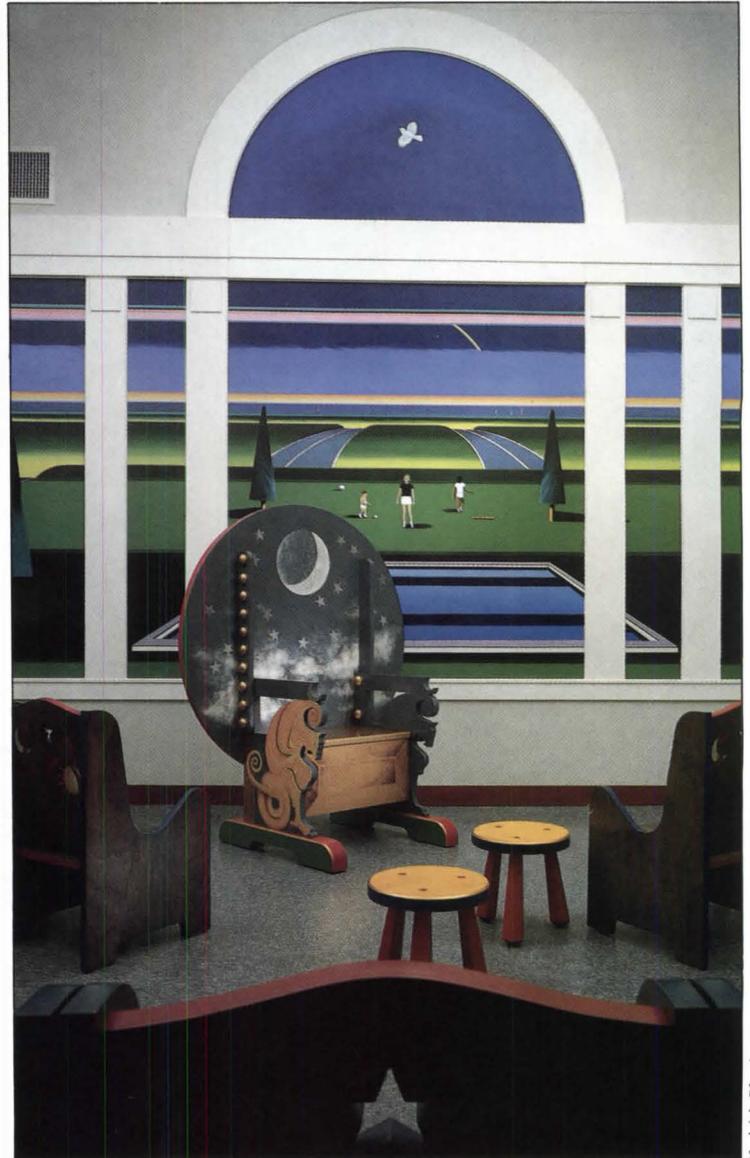
Photos: Hedrich-Blessing

Project: Conrad Sulzer Regional Library, Chicago.
Architects: Joseph W. Casserly, City Architect. Hammond Beeby and Babka, Inc., Consulting Architects (Thomas H. Beeby, Bernard F. Babka, James W. Hammond, principals; Tannys L. Langdon, project architect; J.F. Beidleman, J. Clark, M.F. Czarnecki, K.S. Johnson, R.K. Larsen, staff).
Client: Chicago Public Library.
Site: triangular site on busy commercial street, across from park.

Tannys Langdon's watercolors for some of her furniture designs show (at left: from top to bottom) a wing chair and table with "Spring" motif; library chair with "Snow Queen" motif; library table; and wing chair, both with "Spring" themes. The Popular Reading Room on the ground floor (opposite page) shows the colorful furniture in its restrained Post-Modern setting. In the background of the photo is a view through to the

Children's Library (right), the mass of the Circulation Desk (center) and the stairway (left).

The Storytelling Room (below) contains a table/chair, an Early American furniture form. It allows the storyteller to develop a ritual of opening the treasure box to take out the book, and then sitting on the "throne," her head framed by the moon like a halo. On the walls are Sandra Jorgensen's murals.



Hedrich-Blessing

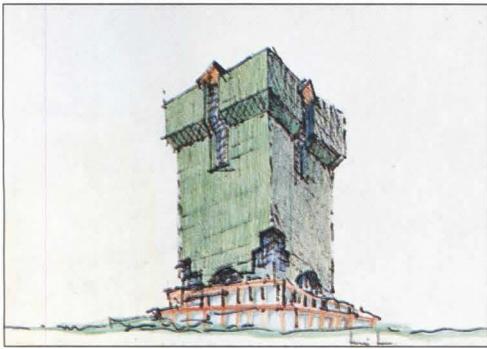
Program: public library including children's library, auditorium for 200, meeting room.
Structural system: ground floor: concrete structure (underside of slab exposed), brick and block exterior wall, steel window. Second floor: steel structure, exposed steel roof framing, brick and block skin, steel window, steel ornamental details.
Major materials: drywall, solid wood and particle board trim and casework (painted), terrazzo (lobby, w.c.) (see Building Materials, p. 108).

Mechanical system: gas forced-air; supplemental radiator perimeter heat below windows.
Consultants: (landscape) T. Beeby; (interiors) T. Langdon; (structural) Gullaksen, Getty & White; (mechanical) H.S. Nachman & Associates.
General contractor: S.N. Nielsen, Chicago.
Cost: \$5.1 million; furnishings \$700,000.
Photos: Tim Hursley, Hedrich-Blessing as noted.



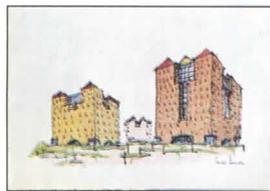
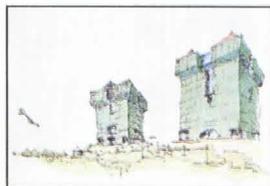
P-M in Portugal

Tomas Taveira is a young architect in Lisbon who is an avowed Post-Modernist with a large body of work to his credit, including office tower complexes and social housing.



Towers of Amoreiras

FROM almost any viewpoint in Lisbon today, you can see two major forms against the skyline. One, on the hills to the south of the valley the city lies in, is Lisbon's most famous monument, the somber, crenelated medieval castle of St. George. Echoing it on the hills behind the city, to the east, is another castellated form that is much larger but not so somber. It is an extravaganza of pink and blue apartment towers with re-



fective black glass office towers that is causing a storm of controversy in Lisbon today. These Towers of Amoreiras are called by some outlandish, while others hail them as a breath of fresh air. They are the project of a young (still in his 40s) architect named Tomas Taveira who runs an office of 60 people working on over \$200 million worth of construction in Portugal, Macao, and Saudi Arabia.

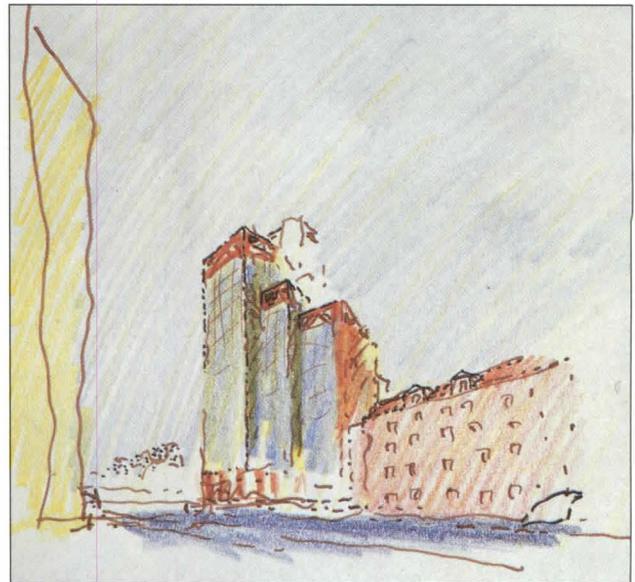
If Amoreiras is seen by some as merely fanciful, it can also be seen as a representative product of the architect's political position vis-à-vis architecture. Most architects in Europe are politicized to a degree unknown in this country, and Tomas Taveira is no exception. To the left, he is seen as a rightist. But since the right hasn't existed formally since the downfall of the government of Premier Salazar in 1974, this must be questioned. While Taveira explains that he is a socialist, the leftists' accusation has some relevance, although not political. To understand it, however, one must look back some years into Portugal's tumultuous history.

Under the 40-year dictatorship of Salazar and those who followed him after his death in 1970, the government was intent on imposing a "national" architecture based on vernacular and historical forms, which could be used as a model to inspire all architecture. The model was characterized by a conventional Modern idiom with the addition of vaguely Baroque and Classical regional decorative detailing (not unlike the architecture of the "Mediterranean Academics" Mussolini was finally to favor, which is seen now as a precursor to Post-Modernism). The government used every possible means to assure this style, and much was built in the nationalist manner, including social housing as well as monumental projects. As repressive and stifling as it may have been in its own day, however, it cannot, in the pluralist attitude of today, be seen as universally repugnant. In fact, some of the government-subsidized, attached family housing of the period is maintained in pristine condition by its occupants today, while surrounding contemporary midrise subsidized housing has rapidly fallen into decay. Nevertheless, the old national style left bad memories. After the Communist revolution of 1974, a nonreferential Modernism was to resurge in direct opposition to the earlier fascist dictates. It arose among certain of the most enlightened architects, in the form of a rationalism that looked primarily to the Tendenza Movement that was stirring

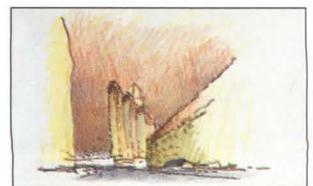
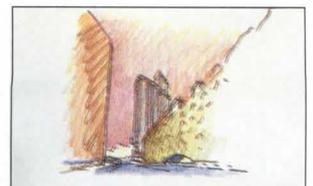
great interest in Italy at the time. This did not occur in Lisbon, though, but mainly in Portugal's second city, Porto, where Alvaro Siza i Vieira became its best known exponent.

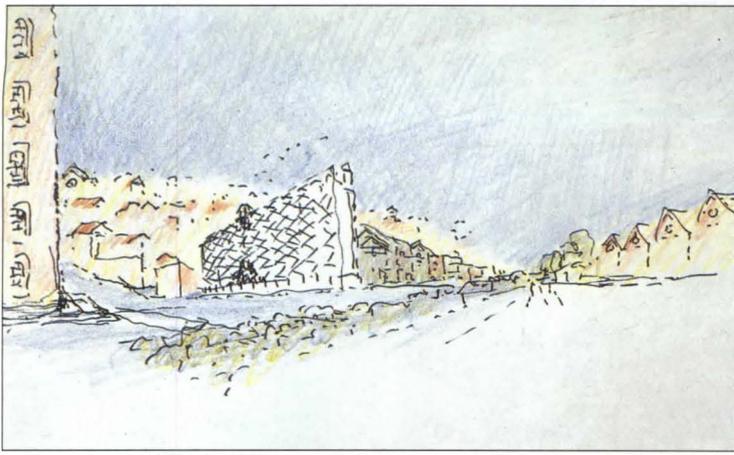
According to Taveira, the faction represented by the rationalists views anyone who makes use of applied ornament and historical allusion as still pursuing the precepts of the pre-revolutionary days, and therefore as a rightist, or worse. But Taveira, like so many younger architects today, is passionate about his architectural patrimony. And, as a true socialist, he is also passionate about housing the poor: He has over 12,000 units of subsidized housing built or in construction today. What causes the controversy, though, is an unbridled architectural exuberance that a culturally conservative country like Portugal sometimes finds hard to take.

Taveira is an avowed Post-Modernist. His sources, like those of any true Post-Modernist, run a wide range, but they are somewhat different from those of other followers of the movement. Taveira's work refers not only to historical and vernacular precedents, but also to those of his contemporaries, and most obviously to Graves and



Satellite Office Building





Don Carlos I Office Building

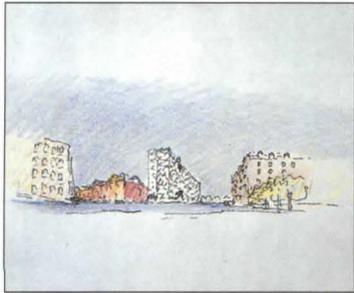
Bofill in the recent Amoreiras project (p. 64), but also Stirling in the earlier housing projects (p. 71).

Sources are important in any Post-Modern architecture, Taveira says, and he clearly acknowledges a debt to Graves in the office towers of the Amoreiras project. "It's the Portland Building approach," he says, "the sense of shape of Portland, the classical organization of its design, and its anthropomorphic quality that I like." In the housing at Amoreiras, the reference to Bofill seems clear in the high wall of "columns" that make up the façade, but Taveira says that he was also referring to the Castle of St. George and, with the "village" running across the top of the complex, he was paying homage to Lisbon's ancient Alfama district.

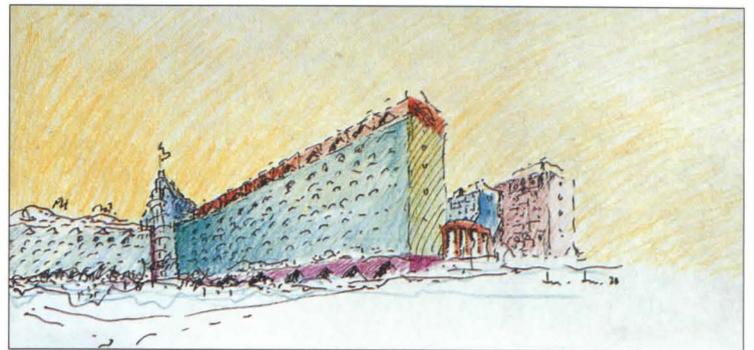
It is in the Satellite Office Building (p. 68), designed in 1973 but only recently completed because of the revolution, that the influence of Stirling can be seen. It is the Stirling of the Leicester University Engineering Building of ten years earlier, though, where the façade has been voided to reveal structure. Taveira saw in Stirling new ways of using materials, and he also found his antifunctionalism (such as the glass stair supporting the auditorium) as "announcing something new." On the other hand, the building is highly functionalist in that, like its contemporary Sears Tower in Chicago, Taveira says that he "could actually collect vertical tubes, and stop each one where one wants." But whereas the Sears Tower bundles tubes for structural reasons, here the rationale is mainly contextual: "You could respond to the various height restrictions of corners, to side streets, and to back gardens in an absolutely direct manner," Taveira says. The building's black glazing and red columns were chosen to set it off in a sea of bland white Modern buildings.

The Don Carlos I Office Building (p. 70) is the most rationalistic of all of Taveira's works, but he is quick to erode any such reading with an illuminated, rather Art Deco entrance and, at the top, a fanciful fountain that could be seen as à la Graves except for the fact that it was designed as-is in 1973. What was not designed as-is is the screen across the face of the building. This was originally to be of structural steel cross bracing, to echo the nearby maritime industrial buildings in the port. But the revolution stopped construction. In 1978, the client, an insurance company, returned as a nationalized company to continue with the building, but the steel workers were on strike, and there was a shortage of steel anyway. Taveira was asked to redesign the building in reinforced concrete. He did, including the screen, which was painted silver to look like steel, so its function as a sun screen is now its major justification.

The Olaias Housing Complex (p. 71) includes 850 housing units, offices, and a retail shopping mall in an urban renewal area. It was designed for 1200 units (all of which will eventually be built) in 1974, and again shows clear reference to Stirling, particularly to his housing schemes at Runcorn New Town. While the Lisbon housing is high-rather than low-rise, the design of its concrete panel system clearly acknowledges Stirling's system, and as at Runcorn, some service risers are also exposed. The project consists of three buildings near Taveira's earliest social housing, which was for Angolan refugees.



Tomas Taveira is an extremely prolific draftsman, making myriad preliminary sketches of each project. His drawings, almost always in black ink and colored pencil, are done on both colored and white paper, or whatever happens to be at hand. One of the most fascinating aspects of his drawings is that they are executed almost like those of a computer; that is, instantly, and from any perspective. Those shown here were done over the last 12 years and represent the currently completed projects shown on the following pages. The long time delay is accounted for by Portugal's 1974 revolution, which held up work on some projects for many years.



Olaias Housing Complex



Currently on the boards in Taveira's office are 3000 housing units across the Tagus River from Lisbon in Almada, and another 3000 units now in construction in the former Portuguese colony of Macao. Clearly his favorite new project, though, is a school for the retarded in the Algarve. It will be a fragmented assemblage of shapes and colors whose design, Taveira hopes, will actually guide those for whom it is hard to find the way. "I'm on new territory here," he says. You could ask, though, if he hasn't been all along. Whatever one might think of his brand of Post-Modernism, it isn't just the slavish copying of the sources; there is always a transformation, even if it may sometimes be rather unexpected. But it is never unexciting, and it's the kind of transformation Taveira feels is needed to bring architecture in Portugal back to a position it once had. **David Morton** ■



The Towers of Amoreiras is a 2.5-million-square-foot complex of housing, offices, and retail shopping on one of the many hills of Lisbon. The pink and blue 19-story housing portion includes 119 one- to four-bedroom apartments that occupy a total of 216,000 square feet. At the opposite side of the site, three black office towers of 24 stories contain 216,000 square feet of space each. The housing and office buildings



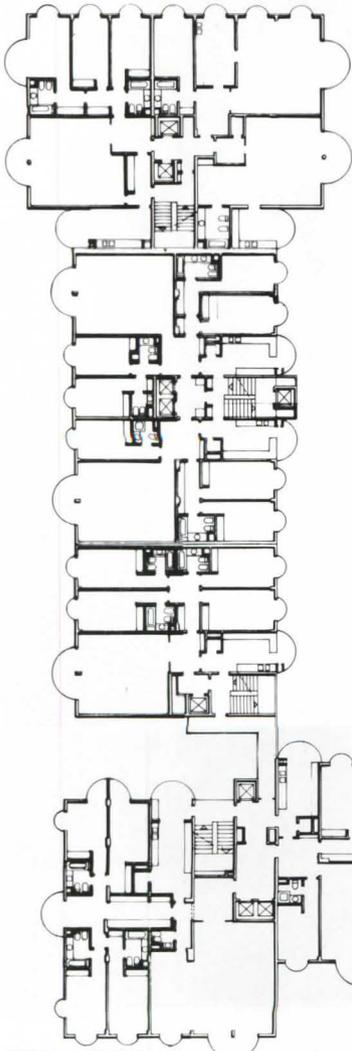
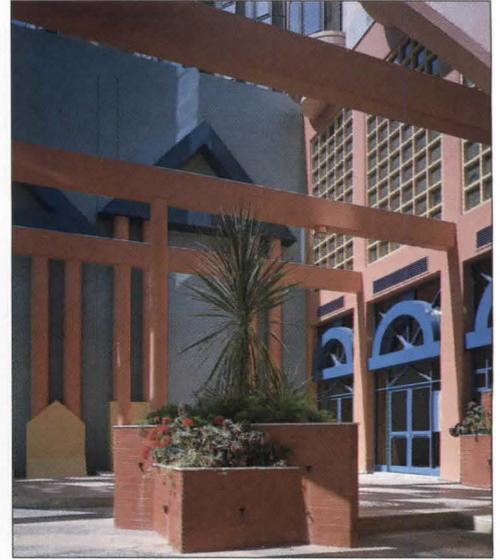
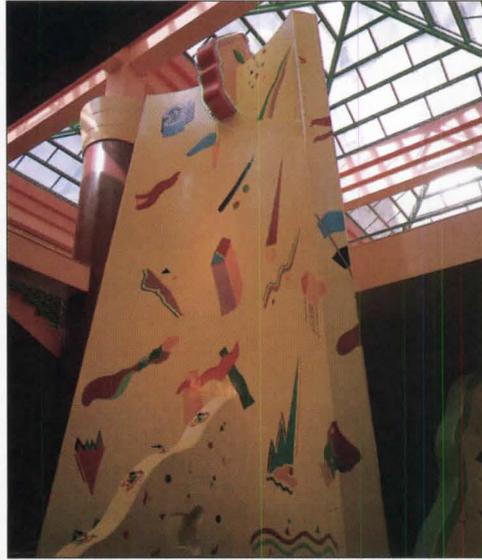
are on a podium that holds 2000 cars and a 486,000-square-foot shopping center.

While the office buildings find inspiration in Graves's Portland Building, the housing sees Bofill as a source, but it looks more directly to the 12th Century Moorish Castle of St. George in Lisbon and to the city's Medieval Alfama district, its oldest part. Taveira sees Amoreiras both as castle and as medieval village.

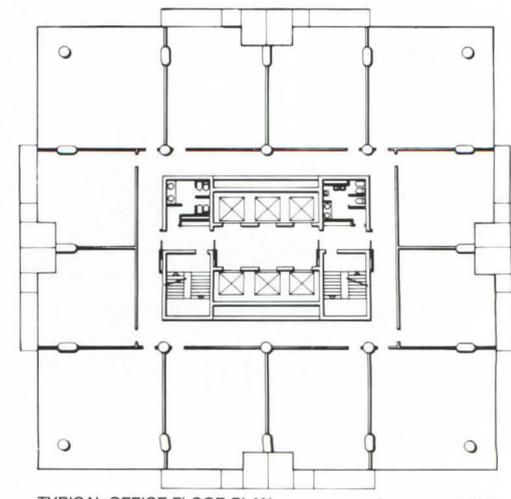
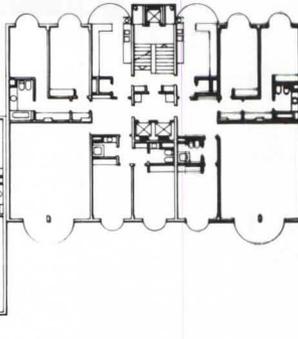


At Amoreiras Towers, the retail shopping mall occupies a large portion of the podium (see site plan, facing page) the entire complex stands on. The mall (below left and middle) is naturally lighted by barrel vaulted skylights following its main passageways, but the focus of the two-level shopping area is at the grand staircase (below middle) under a series of pyramidal skylights. The entrances to the apartment units (below right) are also in the

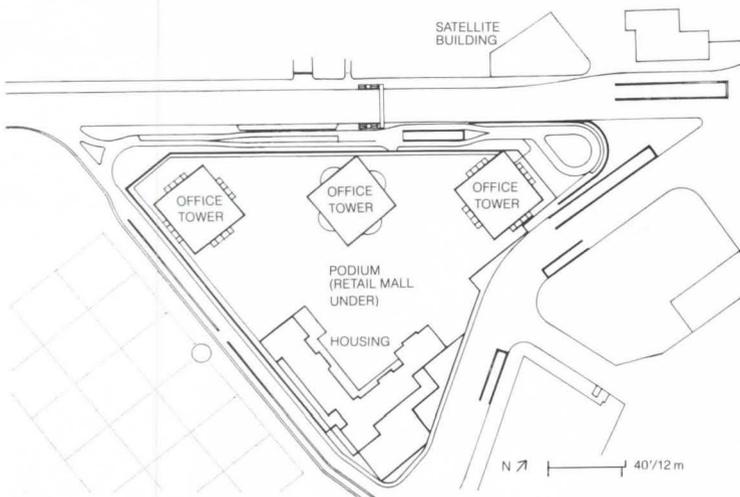
podium, and it is here, particularly in the lobby, that the most overt use of Classicism appears. Each apartment (facing page) has a classically detailed, wood-paneled entry, and the living rooms include the core of the larger "columns" seen on the buildings' façades.

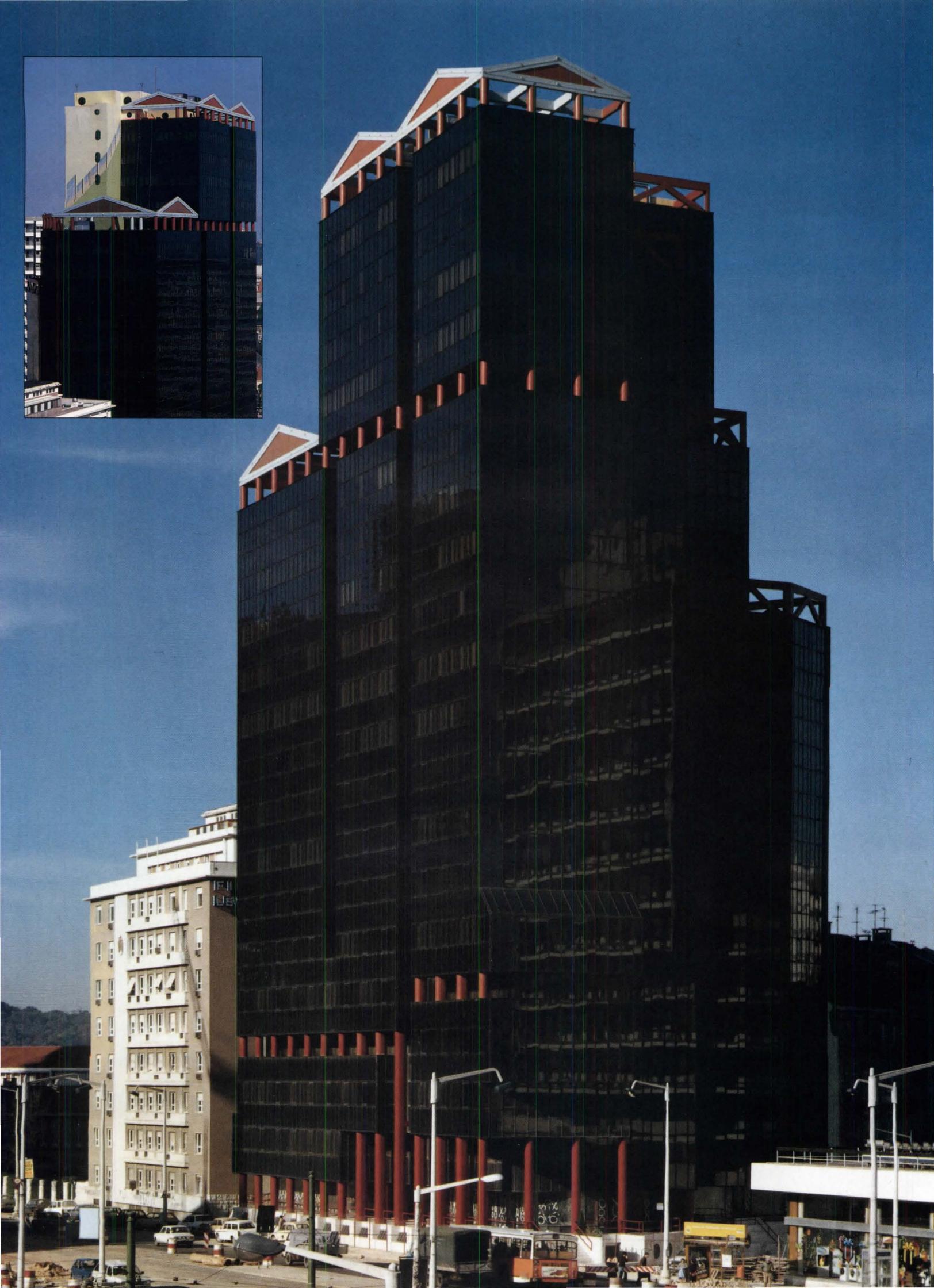


TYPICAL HOUSING PLAN 20'/6m



TYPICAL OFFICE FLOOR PLAN 20'/6m

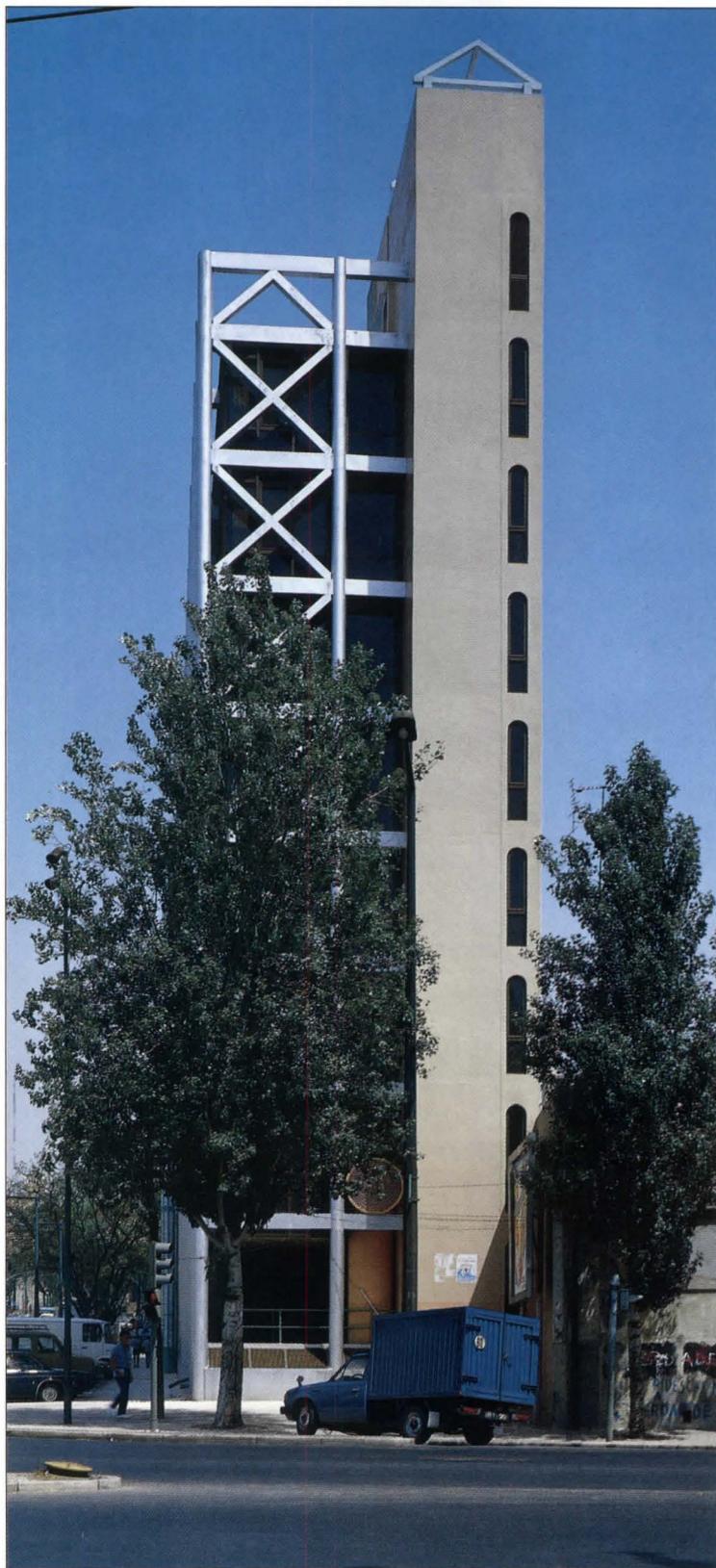
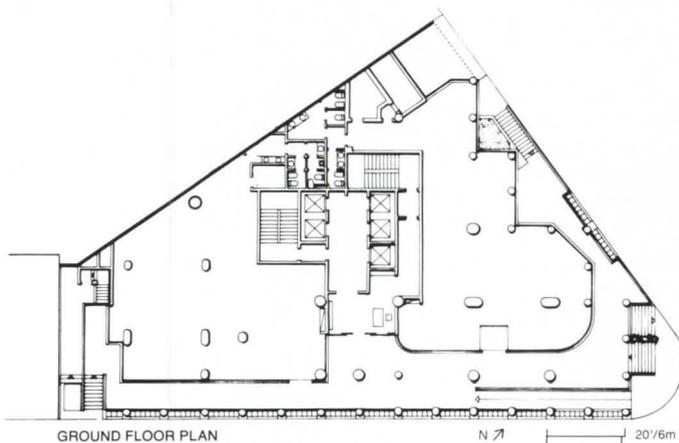
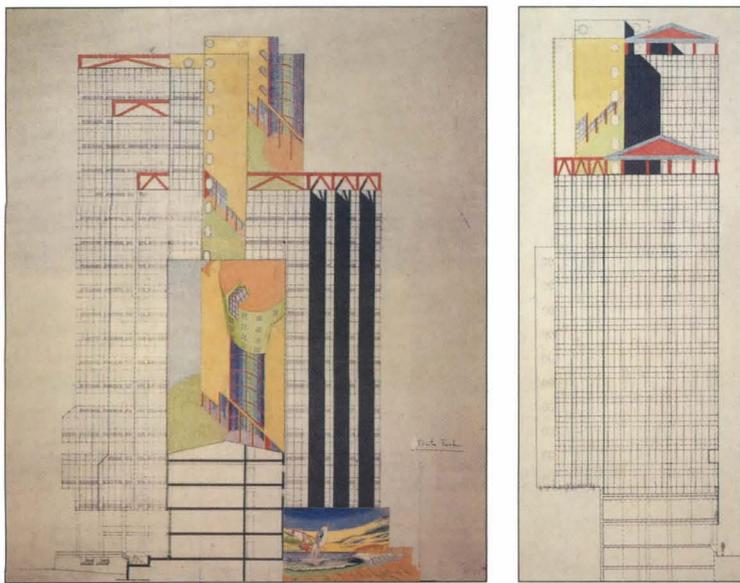




The Satellite Office Building (facing page and below) is across the street from the Towers of Amoreiras project. The building is 20 stories high and contains 150,000 square feet of office space, 20,000 square feet of retail shopping, and five levels of basement parking. The building's first design inspiration was Stirling's Leicester University Engineering Building, but the second was the site itself, which the building responds to by bundling its towers

and stopping them where necessary; at the back (inset facing page, and drawings below), a mural is accommodating to the low-scaled neighborhood.

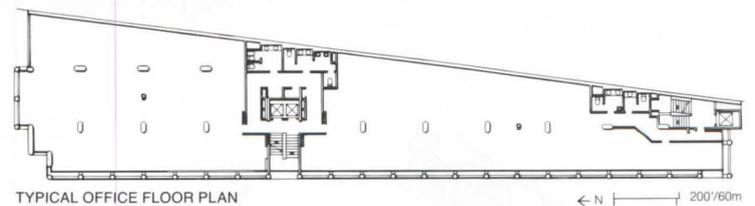
The Don Carlos I Office Building (below and next page) faces the harbor in Lisbon. Its south end (seen here) faces directly to the water and becomes a beacon on the shoreline.

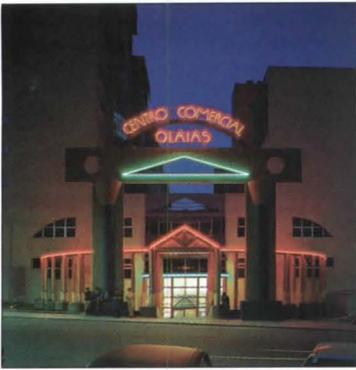




The Don Carlos I Office Building was designed in 1973 for a private insurance company, but because of the revolution was not completed until recently. The eight-story building contains 65,000 square feet of office space and 18,000 square feet for retail uses over four levels of parking. The cross-bracing, which was originally to have been of structural steel, is of reinforced concrete and not structural to the building; its main justification now is as a

sunscreen for the offices facing west (bottom right). The aedicula (left) above the entry (bottom left) is actually not Gravesian (considering its design date), but is directly from Ledoux.

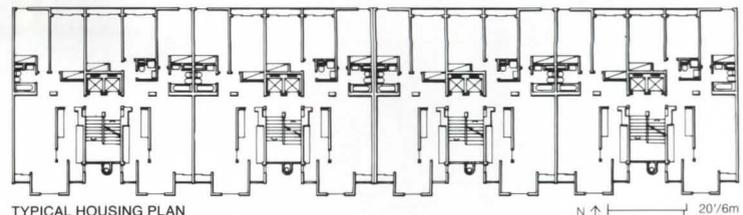




The huge Olaias Housing Complex is in a newly developing section of Lisbon where housing ranges from that for the middle class to that for the most disadvantaged. The project was designed for 1200 units for those of middle income, and 850 have been built to date. In addition to the housing, the complex contains a 93,000-square-foot retail shopping mall (the Centro Comercial, left), a 192,000-square foot office building (in the middle building of the

photo at bottom left), and a 64,000-square-foot health club. A 252-room hotel will be added later.

The primary design sources for this complex come again from Stirling, from the Leicester building (seen in the office block) and the housing at Runcorn New Town (seen here in the two housing blocks flanking the middle office block).



2000 and Beyond

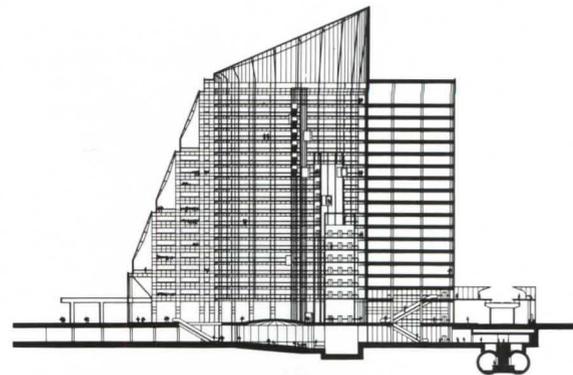
*The new State of Illinois Center:
infamous, a noble effort, or both?*



State of Illinois Center
Chicago, Ill.

In Illinois, we truly believe that "what we build says who we are." We are a brave people, undaunted by new and innovative ideas. This has been the cornerstone of our state's history. We, all of us, have given birth to a magnificent building for the year 2000. It is a building of openness and accessibility, to symbolize the openness and accessibility of

government as it should be conducted. The attributes of this building will serve as an inspiration that will continue Illinois' reputation as a great state and Chicago architecture as the best in the nation.—
Illinois Governor James R. Thompson.



SECTION THROUGH ATRIUM

CHICAGO is unique. Any student of architecture can recite the litany of Adler & Sullivan, Holabird & Roche, Burnham & Root, Jenney, Wright, and Mies that makes the city preeminent. Nor have its architectural awareness and spirit waned over the decades since these greats made history. Brash new ideas are a way of life in Chicago.

Enter a governor and an architect with a common desire to make a noticeable blip in this distinguished timeline. The result is Helmut Jahn's State of Illinois Center (SOIC), the building that provokes epithets or praise from polarized Chicagoans, and from many other quarters as well. There is reason for both. However, this does not preclude a combination of thoughts about this built paradox.

Chicago's grid plan is modified by the nonconforming Chicago river and parts of Wacker Drive. South and east of these diversions, the North Loop's grid is a given condition for most blocks, including the SOIC site, bounded by Clark, Randolph, LaSalle, and Lake Streets. The last few decades have been marked, in Chicago and other major cities, by the proliferation of urban plazas; Chicago's are often described as windswept and virtually deserted in winter and as inhospitable baking sheets in summer. Most are formal in geometry and orthogonal in relation to buildings and the grid.

Helmut Jahn designed this structure in a joint venture of Murphy/Jahn and Lester B. Knight & Associates. It has always been important to Jahn to hold the street line where applicable, and to draw other design parameters from various sources, whether in physical proximity or philosophical content. Priorities for SOIC included expressing its governmental status, relating to the height and scale of the adjacent City/County Building, providing direct links for surrounding government buildings with subway and elevated transit lines, and combining a sense of importance, vitality, and energy efficiency. It is intended that it provide a humane, stimulating environment, thus reestablishing "the social role of architecture."

In choosing the rotunda form, Jahn sought to imply *government*, recalling domed buildings historically associated with such facilities. On the west, north, and part of the east edges of the site, the street line was held. The height of the building and the material of its arcade are responses to the City/County Building. The left over corner court is seen as an element, symbolically enclosed, leading into the main event, the atrium. Linkage with the elevated transit line parallel to the north façade will include a new station, yet to begin construction under a separate contract.

Several major programmatic directions, in many ways interrelated, have provided lively topics for discussion. "Open office" planning was taken to either new heights or ridiculous extremes, depending on who is asked. As a big symbolic step toward assuring the public of government's accessibility and aboveboard intentions, much of the upper-level office space is open to the atrium and has few walls elsewhere. Energy considerations are cited as part of the reason for a low-rise atrium solution with a combination of reflective and clear glazing, providing significant natural illumination. "Active" energy design includes an ice-making capability for handling cooling loads. Double glazing was part of the original scheme of things.

Beyond these most obvious influences, the intended layers and imagery get more complex. Jahn is not unsympathetic to the use of historical referents in his work, but he has interjected a distance in their expression. He cannot, he says, bring himself to be literal in his references. His goal has been to reinterpret or restate them in modern materials, to arrive at a new syntax. To date, SOIC has been his most ambitious built attempt at that synthesis of future and past. A truncated dome, keystones expressed in colored glass, and stone arcade piers that either "freestand" or fail to touch ground all play representational roles as interpreted by today's thesaurus. This build-

ing design sets forth enormous and, in many respects, worthy goals.

Does it "fit in"? How does it relate to its neighbors, its heritage, the grid and plazas of Chicago, or its stated intentions? Helmut Jahn does not like the word "contextual," citing its obvious overuse by architects to justify what they do. If the term, like Post-Modern, has lost whatever edge of specificity it had, it is still useful for getting a handle on relatively broad issues. The issue at SOIC is its "comfort factor" with its venerable or not-so-venerable adjacencies. To the City/County Building, acknowledgment of heights and, minimally, to materials, is present. To the Richard J. Daley Center it judiciously makes no noticeable gesture other than the grand foil of its curved corner/façade.

It is the combination of this sloped-back curve, the free-form plaza elements, the relatively low (17-story) height of the overall structure, and the majority of its surface cladding that gives SOIC its otherworldly aura. At present, it can be seen from Wacker Drive and the river, across cleared city lots. From this vantage point, it has an abstract beauty, the slope and the curves of its sliced east façade counterthrusting amid the staid boxes around it. However, at the closer range of the streets around it, it takes on a heavier, less graceful—albeit still alien—aspect. In Jahn's view, if a building can be contextual, SOIC is more so than most recent and more overt attempts. Contextual, it seems, is in the eye of . . .

Strict adherence to the street line on the west, north, and east reinforces the grid and the canyonlike aspects of LaSalle and Lake Streets. The plaza at the south and east makes the entry hierarchy obvious and is a reasonable *transition* on the way to the interior experience. The dematerializing arcade members that march on to define the antespace, however, were far more bewitching as a paper concept than as reality. The poetry and imagery are diminished. There is something about a stone ruin supported by lollipop-stick columns that disappoints.

Commentary about the appearance of the glass cladding, its color, and its detailing has almost become a bore in its abundance. If you don't like these shades of blue and salmon, you will have trouble with this building. Color is hard to be objective about; the details are easier. The curved wall is beautiful, while the design of other elements of the curtain wall succumbs to a combination of influences, many producing less than positive results.

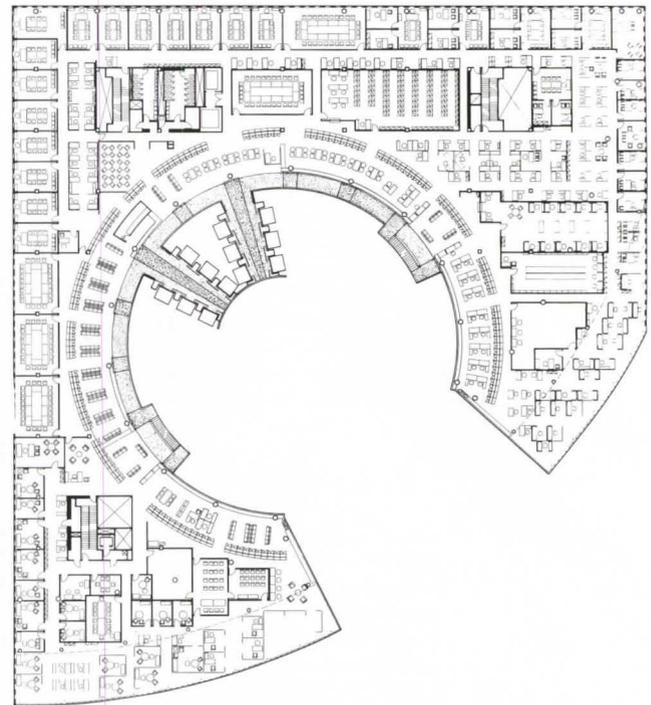
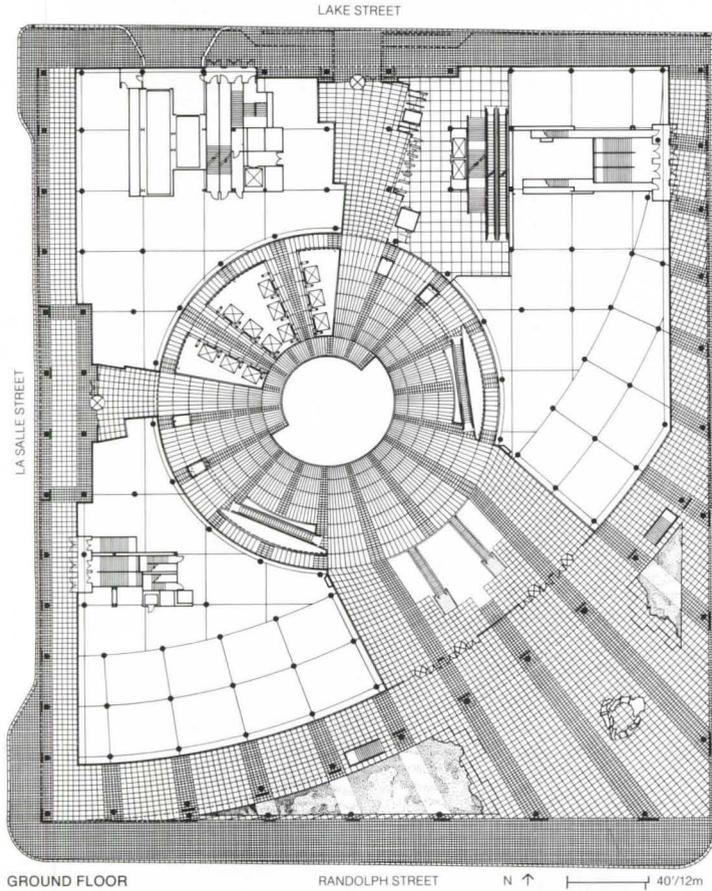
Possibly one of the most exciting prospects held out by a handful of architects in the past few years has been that of polychromy through glass variations. Tried in other places by other architects, the technique has produced less than promised. Jahn has put a whole lot of faith in this approach and has come away with good results, even if the gradations are not all that obvious to the casual observer. Fading from medium dark below to almost white at the top, from reflective to transparent to opaque, the glazing at SOIC—in all of its shades and types—has top billing. The darkest blue, incidentally, represents the maximum allowable amount of blue pigment in the ceramic frit applied to the glass; white applied to "clear" glass results in a green cast. Glass keystones, stripes, and bands perform at least a fair measure of their abstract role.

Silicone glazing, producing the nearly seamless curved wall, was the architects' first choice for the whole building. At the time the specifics were being refined, however, a limit on the liability the manufacturers were willing to accept also limited the area of silicone glazing. It is pleasant, if pointless, to speculate on how the color variations in the glass skin would have looked, uninterrupted by mullions. At the least, a higher degree of elegance on the straight walls would have been a vast improvement. Brought down to people level, concern over the heavy detailing is overshadowed by thoughts of snow removal equipment being deftly choreographed to thread

The building defies conventional architectural classification: its squat form . . . is one part Pompidou Center, one part Piranesi, and one part kitsch 1950s revival. It mixes high tech and high camp. . . . The problem is that the State of Illinois Center is hyperactive; it might be called architecture on amphetamines, a building that is so utterly re-

lentless that it seems never to let you go. One senses that at one point the architect just pulled out all the stops and began to throw into this design every shape, every color, and every idea that had come across his desk. Mr. Jahn has surely killed the curse of dullness that afflicts virtually every other government office building of our time. All of

this adds up to the public building as carnival—a better image, surely, than the public building as forbidding box. — Paul Goldberger, *The New York Times*.



OFFICE FLOOR

A continuous arcade along west, south, and east walls at plaza level is defined by a sloped glass soffit and round columns (facing page, left). The clad columns are outside their accompanying panels at entrances, inside them elsewhere, and behind “runaway” facade parts (facing page, center) around the corner court. As a gesture to the corner, these assemblies diminish with distance from the building. Building columns slip behind the glass skin, while disengaged panels are attached by brackets to their supports. Under the Jean Dubuffet sculpture, the

plaza is both building entry (facing page, right) and the roof of a 600-seat auditorium, entered off the lower level commercial concourse.

its way around and between glass planes.

From the outside, the prospect of a magnificent interior space is conveyed dramatically by the clear glass slice at the center of the curved wall. Not since Saarinen’s Ford Foundation went up in New York has a building displayed such a dramatic atrium to busy city streets in this way. Upon entering, even the most seasoned veteran of the atrium revolution will gawk. A 17-story-high space topped by a rotunda 160 feet in diameter causes that reaction, even if it is involuntary.

Ringed at the lower levels by shops and restaurants, and on the upper tiers by state offices, this space is what the building is really about. The reason for the steel columns outside becomes clearer, if not more desirable, from inside. Here, a very elegant and spidery structure enfolds the void and becomes the matrix on which everything is hung. Layers of office floor trays encircle the atrium, and the mechanics of getting up and down are celebrated. Seemingly freestanding elevator banks and articulated suspended stairways lend an air of kinetic sculpture, an impression compounded almost to limitless degrees by the kaleidoscopic reflective spandrel rings. These segmented bands turn the reflections of moving people into ever-changing Duchamp paintings. The views, whether from top, middle, or ground floor, are spectacular and endlessly changing.

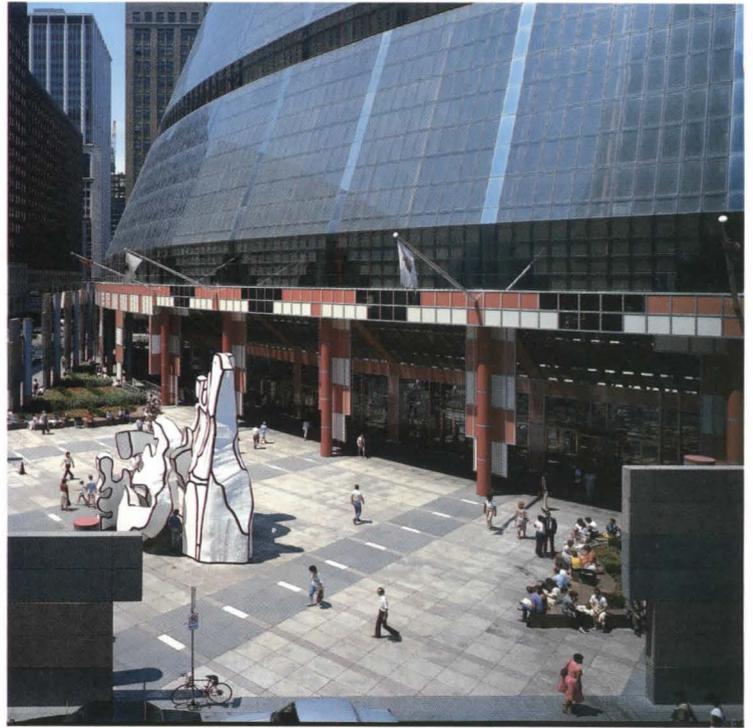
Also celebrated are the nuts and bolts that make the assemblage stand up and function. This ethic is at its peak around the elevators, where bolts, clamps, ducts, wiring, cables, and counterweights all parade their properties. Contrasted with this gutsy display are the pristine details of the elevator cabs, and the elevator car button and ash tray panels. In reviewing steps taken to get this far, a visitor may begin to realize the purposeful payoff between bones and skin that characterizes this building. It is constructivist and high tech simultaneously, with tightly controlled historical references.

Politics and unions and contracts are, if anything, more pronounced factors of doing anything in Chicago than in many cities.

State of Illinois Center is one of the wildest and craziest new buildings this side of Katmandu . . . the best example of high tack around.

The square sides, devoid of features except for the stripes, seem to belong to a different building. The building's odd shape has altered the maze of offices within each ring. Some are square, some rectangular,

some combinations of square and curved. Some have narrow, pie-shaped corners, some have walls in no particular shape. Depending on one's sense of direction, this can be exhilarating or confusing. The proximity of what one employee calls "the void" beyond the balcony has proved unnerving to many.—Kevin Klose, *The Washington Post*.



With the maze of separate contracts covering SOIC, the objections raised by city building officials (overruled in some cases because it was a state job), and the unusual nature of the project, it is no wonder that it is still not completely finished. The magnitude of these and other obstacles can only be mentioned in passing, and they still go on. The three lower retail levels are the province of the City of Chicago, with a whole new layer of complex contracts.

In addition to, and partly because of, aesthetic considerations, the building's detractors jump gleefully on two aspects, the comfort and the cost of the facility. Occupants have indeed been subjected to temperatures in excess of 90 degrees when ice-making failed to keep up with the outside weather. Jahn asserts that a lack of understanding of this sophisticated system was compounded by operators who flushed the atrium with very hot summer night air. No doubt the single glazing substituted as a show of good budget-cutting intentions hurts daytime performance as well. The building and its complexities are still in a shakedown period.

Talk of doubling the initial budget costs, rampant in Chicago, are uninformed and highly misleading, Jahn says. The original funding requested by enthusiastic Governor Jim Thompson was not the "budget," he points out, and that \$80 million was never intended to include such things as land, fees, furnishings, etc. The much publicized final cost of \$172 million includes all of that and more, and should not be compared with the cost of other buildings when they include building costs only.

Because he has tried for so much, Jahn has risked being on a limb that the public—and certain architects—might wish to saw off. It is the Chicago tradition to dare. If SOIC has its glaring faults, and it has, many seem to stem from a stiffening process (and budget compromises) on the way from concept to reality. Despite the avowed gesture to humane design, there is a certain lack of joy in many of the materials and in their detailing. The building is denied the richness that goes with warm materials, while at the same time it fairly

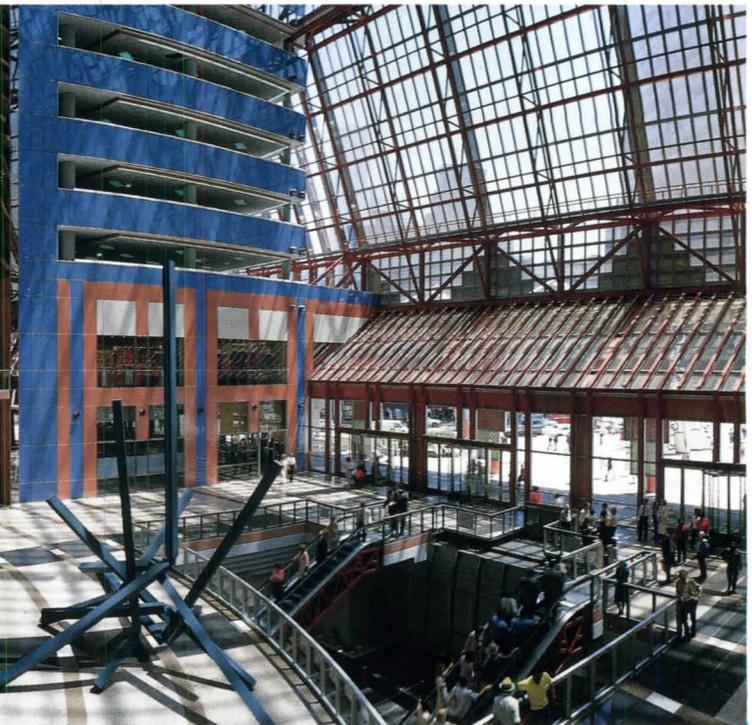
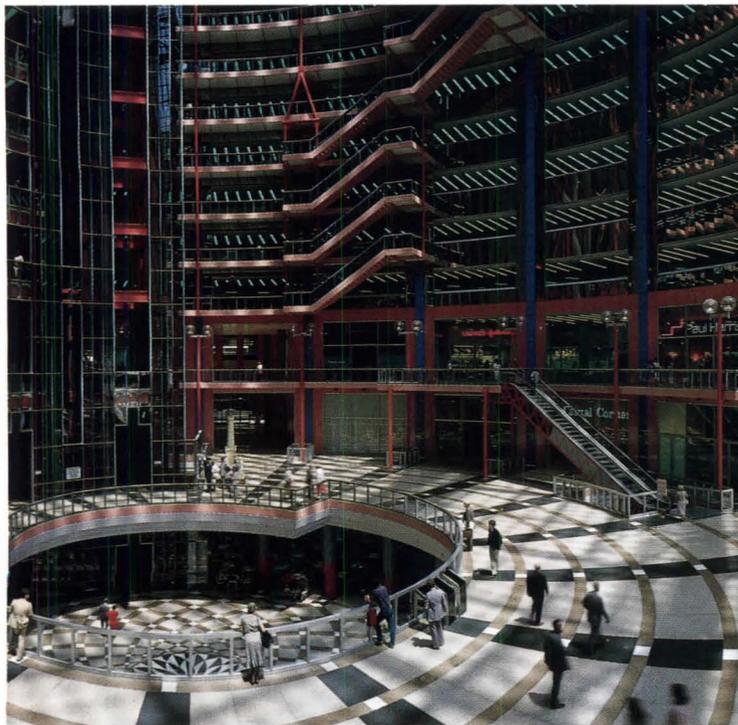
bristles with another type of richness—activity. It is exciting to be in the atrium, on the balconies, and in the office trays, even with complaints of noise and too little enclosure. It is, if anything, too rich at this level, being vibrant almost to the point of overload.

Possibly the last time an architect produced anything this audacious and self-contained in a major city was 1959, when Wright's Guggenheim Museum in New York was completed. It has long since taken its place, but then, Fifth Avenue has more trees and Wright's composition and grace are those of a mature master. Jahn is not Wright and SOIC is not the Guggenheim; but the Chicago heritage of testing and exceeding the comfortable, established limits continues at the hand of a talented and prolific architect. SOIC is a courageous attempt that wins some, loses some, and raises the ante. *Jim Murphy* ■

Jahn's freewheeling sense of fun threatens to trivialize the earnest symbol of open government that he sees embodied in the luminous atrium, with its office tiers open to view. Even some who admire Jahn's use of form wince at the materials, like the strips of aluminum and the tacky-looking colored panels, "popular" elements that con-

found his gestures toward the ideal.

He makes a daring and largely successful attempt to draw stark materials into a tumultuous play of form and light. Without resorting to molded ornament, the atrium reaches toward a rococo extravagance.—Richard Lacayo, *Time* magazine.



Seen from the upper balconies, the patterned granite of the atrium floor (top left) is powerfully focused on the large opening to the concourse below. Waffle-like patterns under balcony

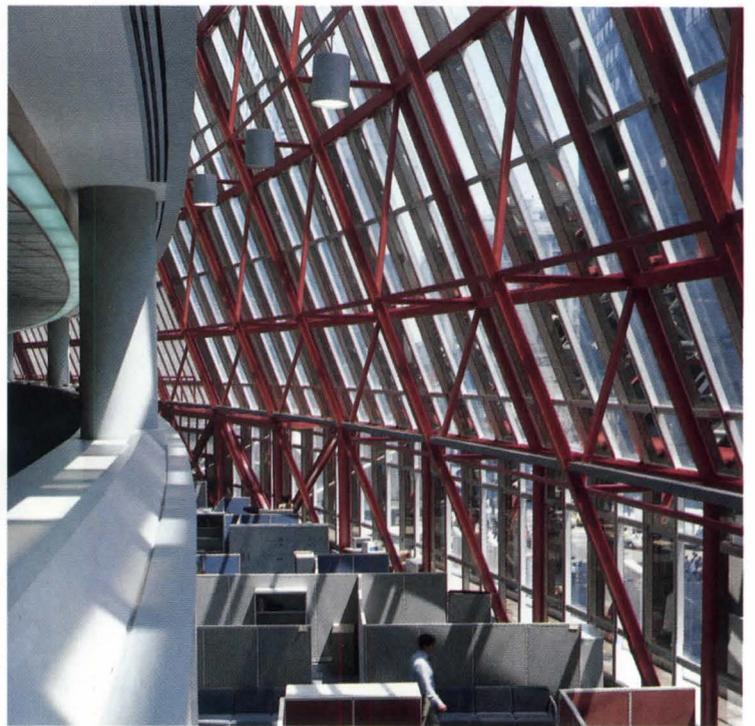
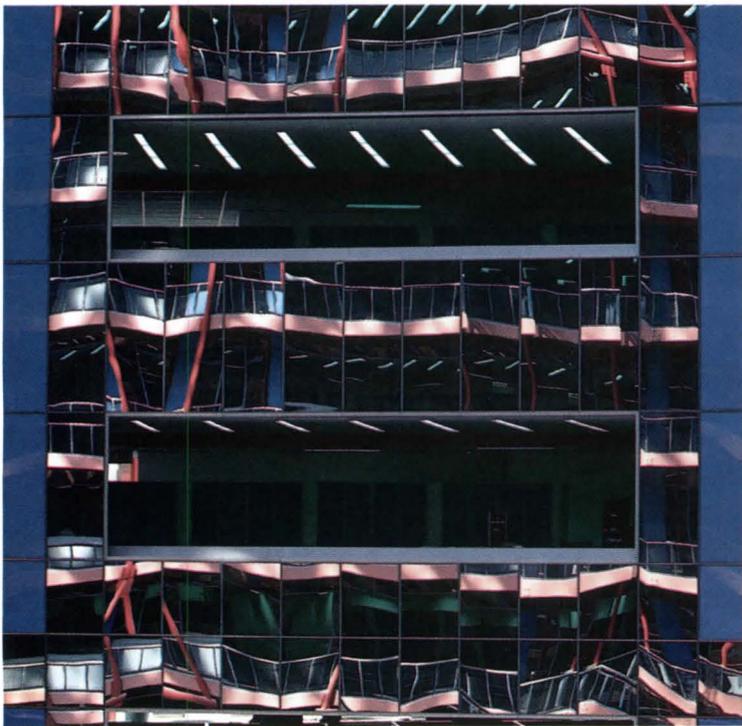
slabs (top right) replace glass block floors intended for these walkways. At the entrance (above right) optional paths lead to the atrium or to the lower concourse via escalator. In

between up and down escalators is a "water feature," still to be completed. The concourse, ground, and second levels are commercial.

It is impossible to find a citizen of this town (Chicago) who doesn't possess a fervid opinion of the blue-striped, three-tiered structure, which glitters downtown like a stadium-sized spaceship. It is expensive, visually excessive, and it didn't come out quite the way it was supposed to. Jahn's vaunted plan for an energy-saving double-glass ex-

terior was dropped due to its outrageous expense. . . .

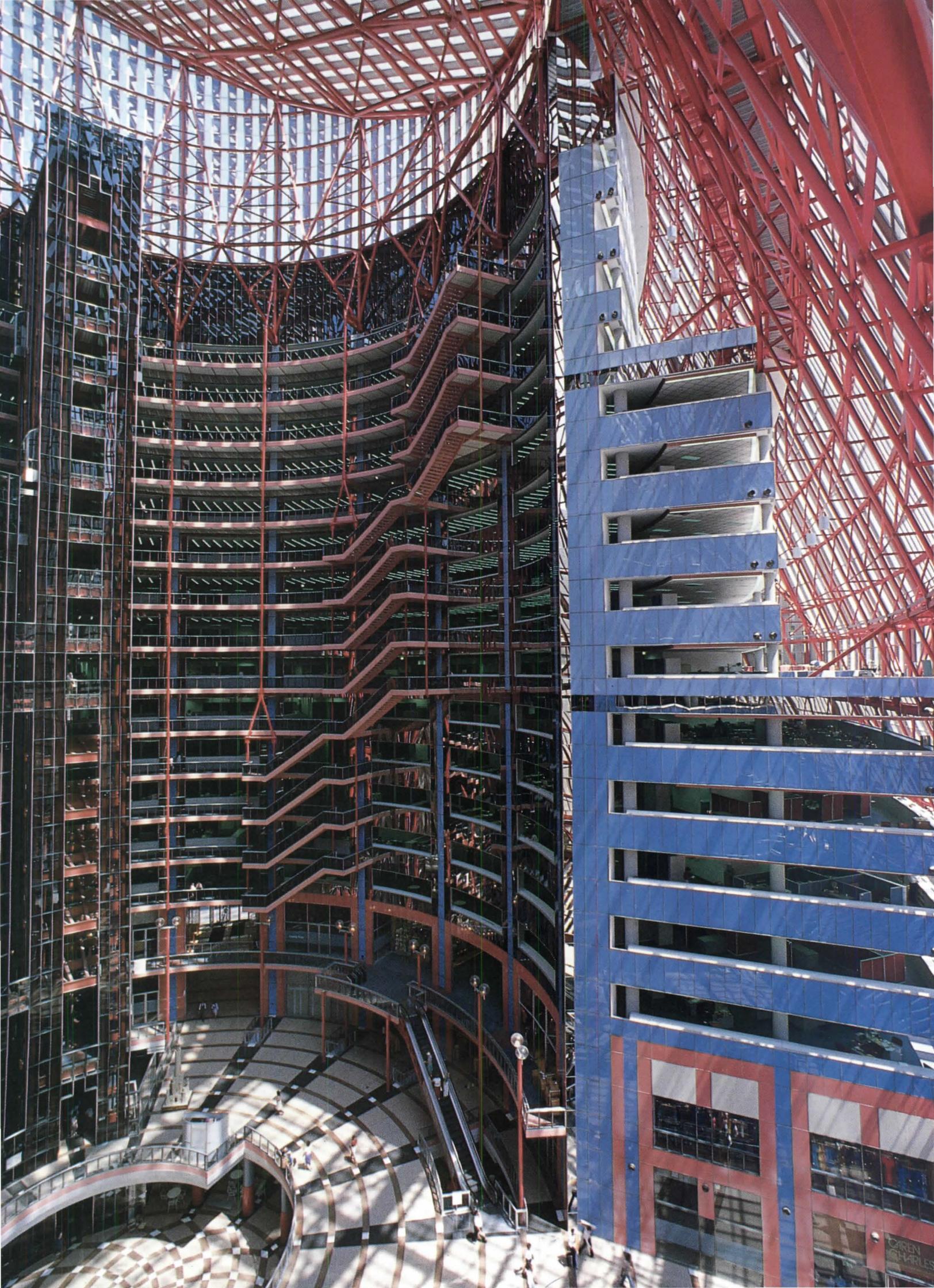
Sunlight, mirrors, and clashing colors make the lobby occasionally blinding, what with burnt-orange structural steel crisscrossing the front and roof, and balconies and stairways in baby blue and dusty pink.—Meg Cox, *The Wall Street Journal*.



Elevator lobbies (top left) and shaft assemblies (top right) are studies in bare bones detailing in combination with slick infill and skin treatment. The weblike tracery of the rotunda,

the stair hangers, and the framing for the exterior wall, play off against a planar and volumetric effect, as seen in the elevator structure and the kaleidoscopic spandrels (above left).

Radiating lighting creates a vibrant pattern, viewed directly or in reflections.

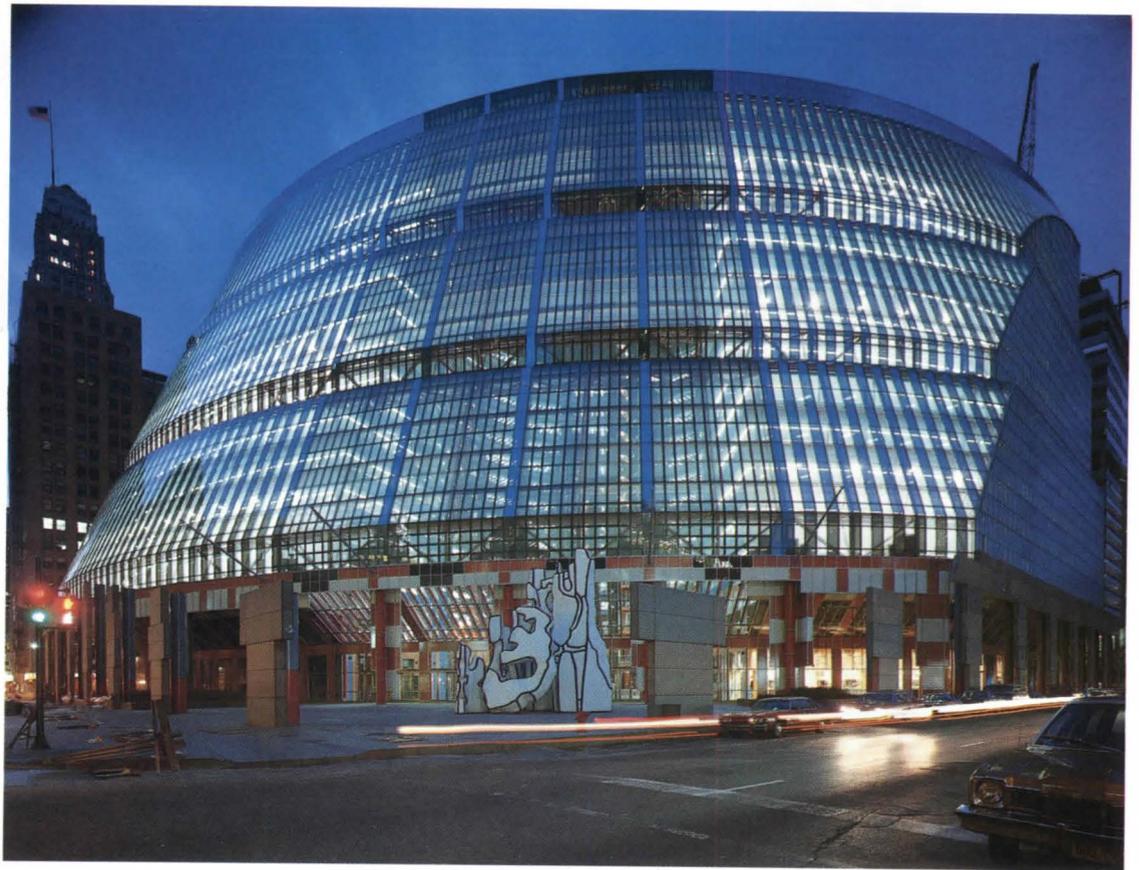


Helmut Jahn's State of Illinois Center is the most cerebral, the most abstract, yet easily the most spectacular building ever constructed in the Loop. Those who say it was a waste of money to give the Center its monumental character and towering rotunda (horrors, that's empty space that has to be heated and cooled!) are to be pitied for their pinched sense

of values. Yet the undeniable strength of the state building's interior is sadly counterbalanced by its clumsy, almost grotesque facades. The exterior of the structure presents itself as chunky, tawdry, and vulgar. No couturier can save the fat girl at the senior prom. (Still,) none but the hopelessly partisan will be able to call it (Governor)

Thompson's Folly.—Paul Gapp, *The Chicago Tribune*.

Four bays of clear glass (right) define the open "wedge" that is cut through from the outside wall to the core of the atrium (facing page). Framing for the truncated cylindrical cap was assembled at grade level and lifted into place. Five-story triangular atriums are formed between the sloped glass and three tiers of office "trays." The reflective spandrel glass of the inner circle is turned around the edge of the "slice," and slips across the top of each tier to the exterior wall catwalks.



Project: State of Illinois Center, Chicago, Ill.
Architects: Murphy/Jahn, Inc. and Lester B. Knight & Associates, Chicago, a joint venture. (Helmut Jahn, James Goettsch, Thomas O'Neill, and Donald Hitchcock, project principals; Helmut Jahn, principal in charge of design; James Goettsch, project architect; David Sauer, project manager; Edward P. Wilkas, manager of production; Lou Moro, structural engineer; Shepard Eisenberg, mechanical engineer; John Mohan, electrical engineer.)
Client: State of Illinois; James R. Thompson, Governor. Constructing agency, Capital Development Board;

Gary J. Skoien, executive director; Thomas Madigan, director of operation; Frank J. Conroy, project executive.

Site: one full block in Chicago's North Loop, bounded by La Salle, Randolph, Clark, and Lake Streets.

Program: office building for the State of Illinois, to house some of the state agencies. Commercial space to be provided on the lower three levels, along with access to subway and elevated rapid transit lines.

Structural system: structural steel frame on caisson foundations. Composite metal deck and concrete floor system.

Major materials: glass and aluminum curtain wall, both dry glazed stick system and shop glazed structural silicone unitized system, granite spandrels, column facing, and paving (see *Building Materials*, p. 108).

Mechanical system: hybrid heat pump and ice system, using R-22 refrigerant to produce 800,000 lbs. of ice during low rate night hours; reheat air systems.

Consultants: Structural: Kolbjorn Saether. Acoustical: Lyle Yerges. Ice system: Industrial Refrigeration Inc. Fire protection: Rolf Jensen & Associates. Elevator: Frank Zimmerman. Curtain wall: Eugene O. Tofflemire.

Space planning and interior design: Vickrey Ovresat Awsumb. Construction manager: Morse/Diesel. Commercial developer: Palmer Group. **General contractors:** Newberg/Paschen Joint Venture; Walsh Construction Company of Ill.; A.N. Ebony Company.

Costs: shell and core structure only, \$80 million; total including land, site preparation, street work, design fees, interior, furnishings and equipment, \$172 million.

Photos: James R. Steinkamp.

Rooms at the Top

A penthouse apartment renovation by Frank O. Gehry & Associates is an arresting roofscape of miniature buildings, and an unusual example of collaboration between client and architect.

TWO words that are often applied to Frank Gehry's work are "personal" and "idiosyncratic." But what we often forget is that Gehry is just as interested in his clients' personalities and idiosyncrasies as he is in his own. A good case in point is the duplex apartment recently completed for artist Miriam Wosk. Starting with the third and fourth floors of a nondescript, four-story, 1960s vintage apartment building on a relatively unassuming Beverly Hills street, Gehry explored his current preoccupation with breaking a single building into several smaller ones—each of which contains a single room—while at the same time encouraging his client to put her own—equally strong—artistic stamp on the project.

While the collection of what seem to be miniature structures perched on the roof of the peppermint-pink building appears startling from the street (Gehry demolished the fourth floor to make room for it), it is simply another manifestation of his experiments with appropriating forms from the surrounding urban landscape and arranging them in a single, dense grouping, as he has done in recent works such as the Aerospace Museum and the Loyola Law School (P/A, Feb. 1985, p. 67). But, as in both those projects, the forms of the Wosk Residence are filtered not only through the mind of the architect but through that of the client as well. Gehry described his first model of the project as "a 3-D statement of everything I'd heard from her," encompassing sources that ranged from Middle Eastern synagogue architecture to Art Deco. From this freewheeling and fairly extravagant first version, Gehry edited and reedited the design down to more or less its present state. While the blue-domed form that houses the kitchen does indeed refer to Middle Eastern sources, the dining room piece, which Gehry had wanted to resemble a *succah*—the hut made of branches that is a traditional part of the Jewish holiday of Succoth—was ultimately vetoed; instead, the dining room is a gabled greenhouse. The adjacent living room is contained in a blocklike volume clad in swimming-pool blue tile "scales," the architect's response to his client's "playing Gaudi" in her tile designs for the kitchen, bathrooms, and terrace, and for the stained-glass skylight of the kitchen dome. Other elements of this roofscape include a ziggurat (housing the den) clad in metal with a gold auto-body paint finish; its shape provides what Gehry drily refers to as "the easy stepped form" that makes the transition from the low-ceilinged den to the taller living room space. Adjacent to the ziggurat on the east side is a black granite "baldacchino" over the dramatic curved stair that leads down to the third-floor bedrooms and baths. Finally, Miriam Wosk's studio is, at her request, an industrial-looking, pared-down shed of corrugated aluminum, with a vaulted roof and generous skylights. Gehry loaded a lot of architecture onto a rather small pedestal, but the result is density rather than overkill.

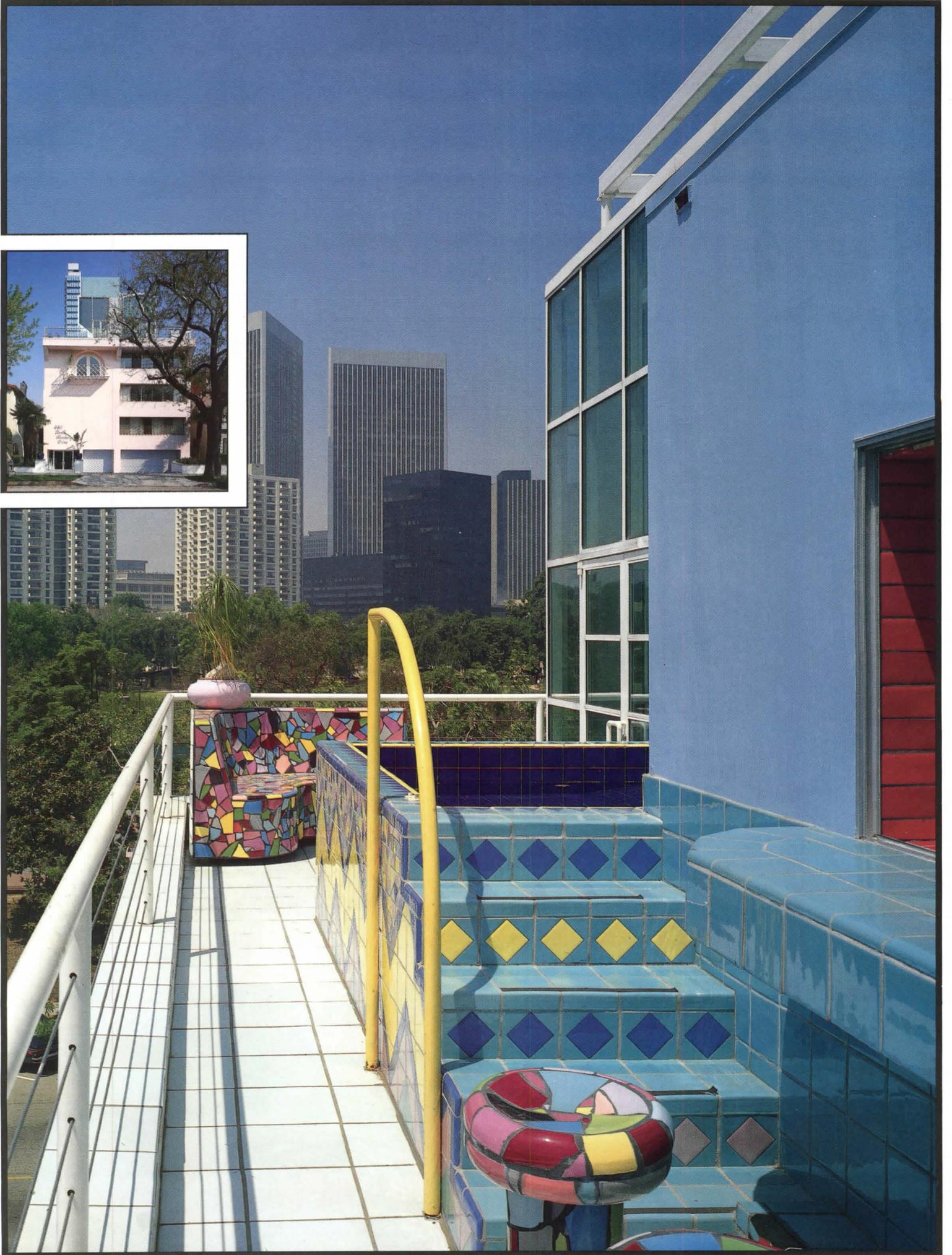
As is so often the case with Gehry's buildings, the initial shock of seeing one of them quickly gives way to the ease of actually being *in* it. Taking ample advantage of the low scale of the neighborhood, Gehry provided the penthouse with an abundance of natural light and stunning views. He did more than simply respond to the diversity of the building's context; he brought that context indoors by offering generous visual access to it. The apartment's rooms are not particularly large, yet they seem grand in scale. This is due not only to the vistas they command, but to Gehry's insistence on making the various pieces of the composition transparent enough so that you can see several of them at once from *within* the building; however, these elements are as distinct on the outside as their contained spaces are continuous on the inside.

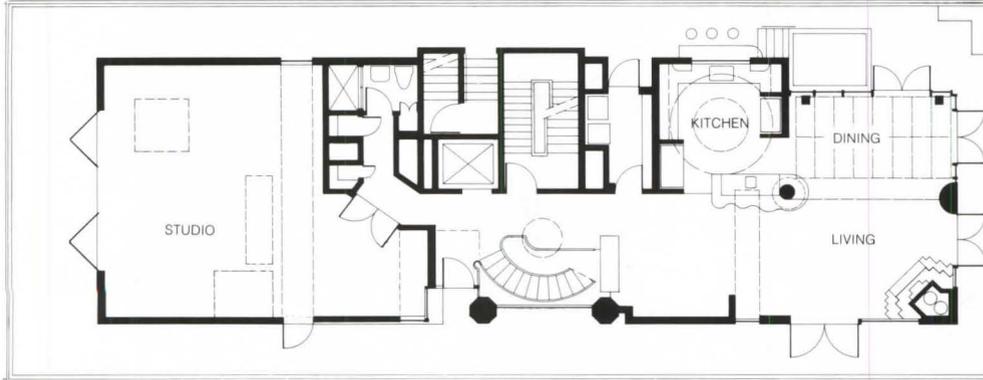
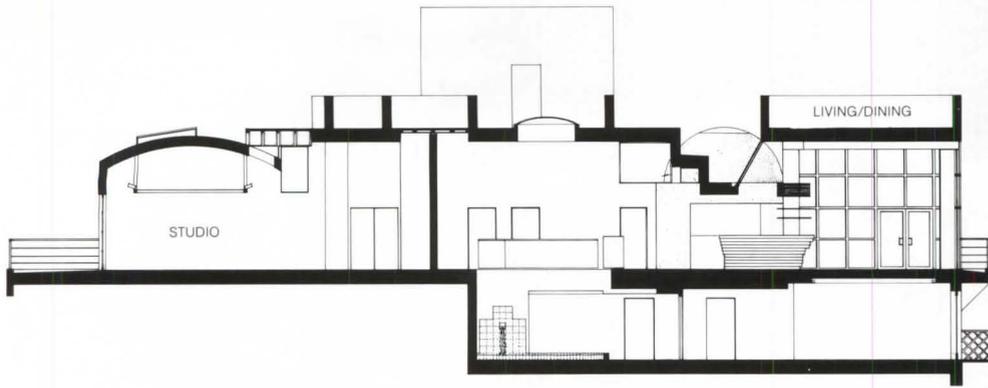
All this is typical of Gehry's work. What makes the Wosk project different is the degree to which he collaborated with the client, especially a client who is an artist in her own right and who sees a house as "a primary work of art." Rather than feeling threatened by this, Gehry encouraged Wosk to "struggle with her own aesthetic" by being both supportive and critical; Wosk in turn considered Gehry an "art director" for her own ideas. And while her fondness for decorative patterning, Art Deco and contemporary art furniture, and luxurious finishes may seem at odds with his famous "cheapskate" repertory of industrial materials, one of Gehry's greatest strengths is his willingness to acknowledge each client's preferences, even if it means, as Wosk put it, "taking a big risk." Gehry's architecture supports Wosk's eclectic interiors without actually deferring to them, and, while the collaboration had its ups and downs, the net result proves that the project was indeed big enough for both of them.

Pilar Viladas

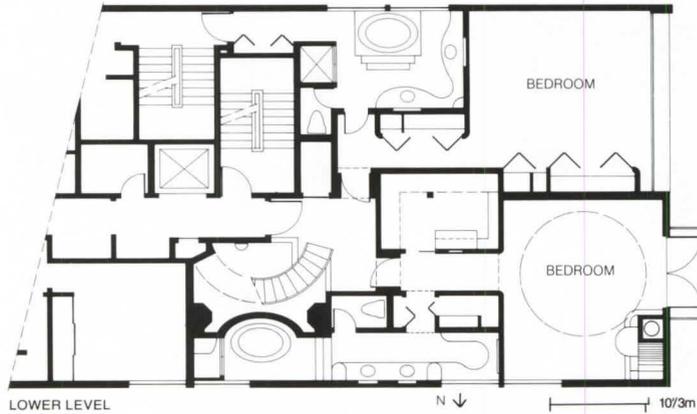


From the street, the Wosk residence (small photos) is a surprising cap on its rather plain Jane, 1960s vintage base. The architects demolished the original fourth floor to make way for the new penthouse "roofscape," and extended the new fourth floor out slightly over the front of the building. On the south side of the penthouse (facing page), patterned tile designed by Miriam Wosk adorns the terrace, which has an impressive view of the Century City towers to the west. The tiled bench is by Marlo Bartel.



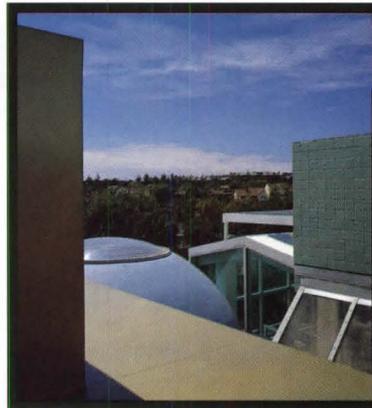
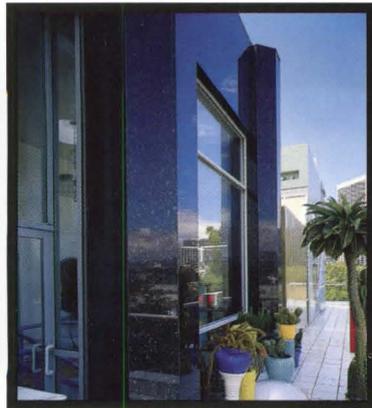


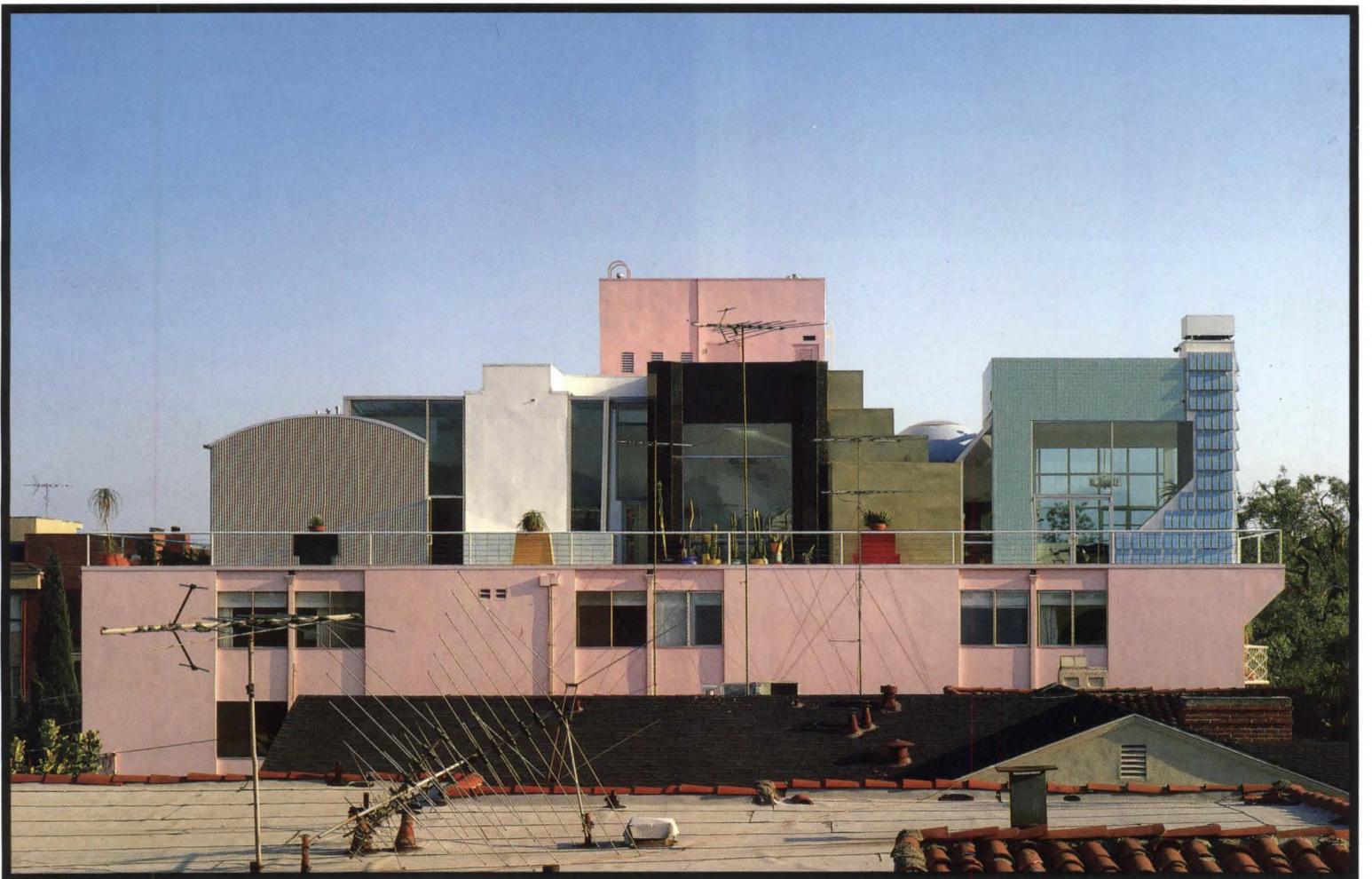
UPPER LEVEL

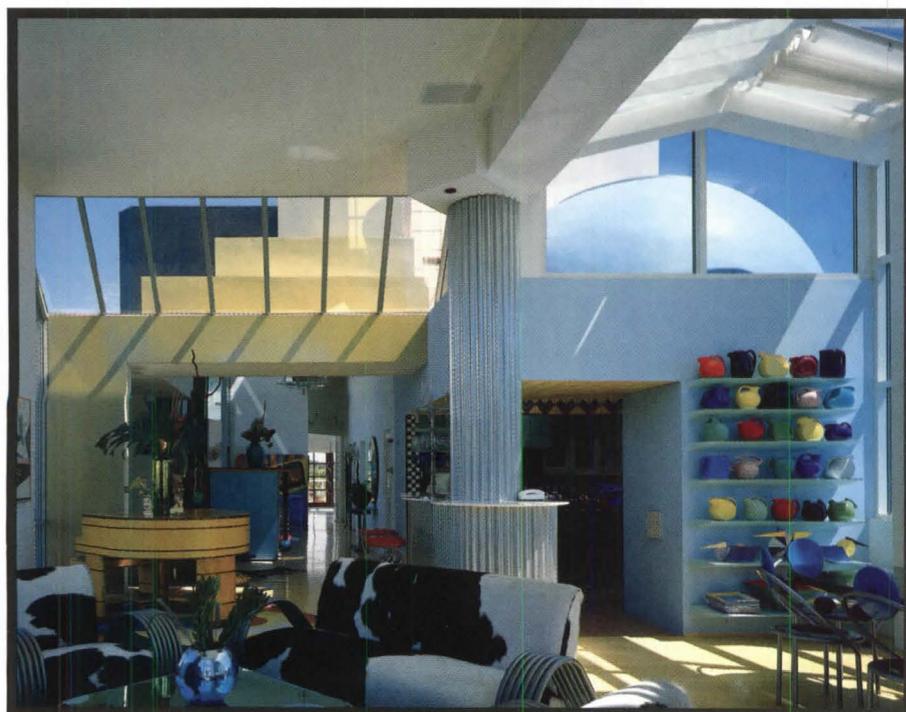
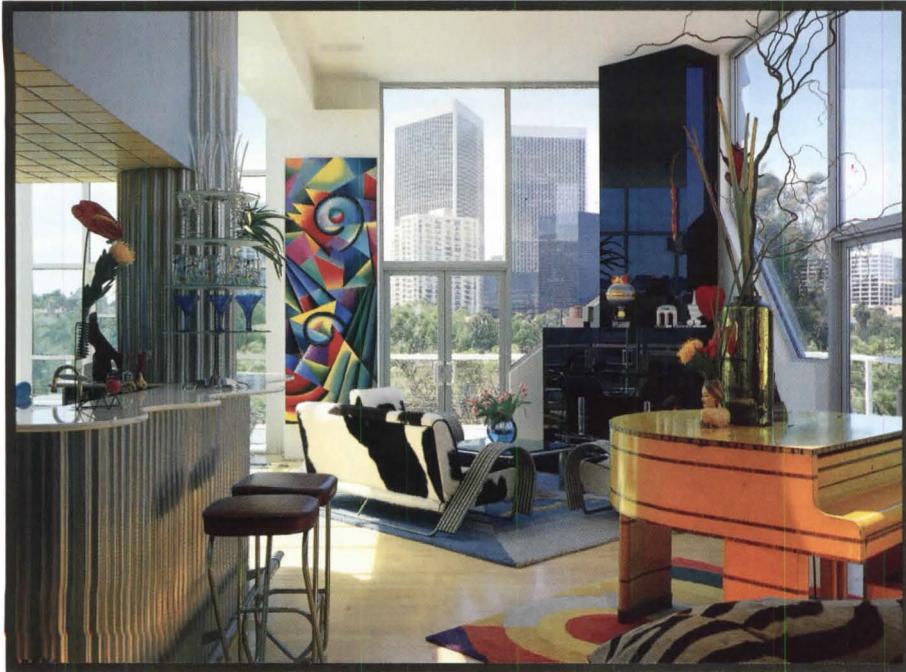


LOWER LEVEL

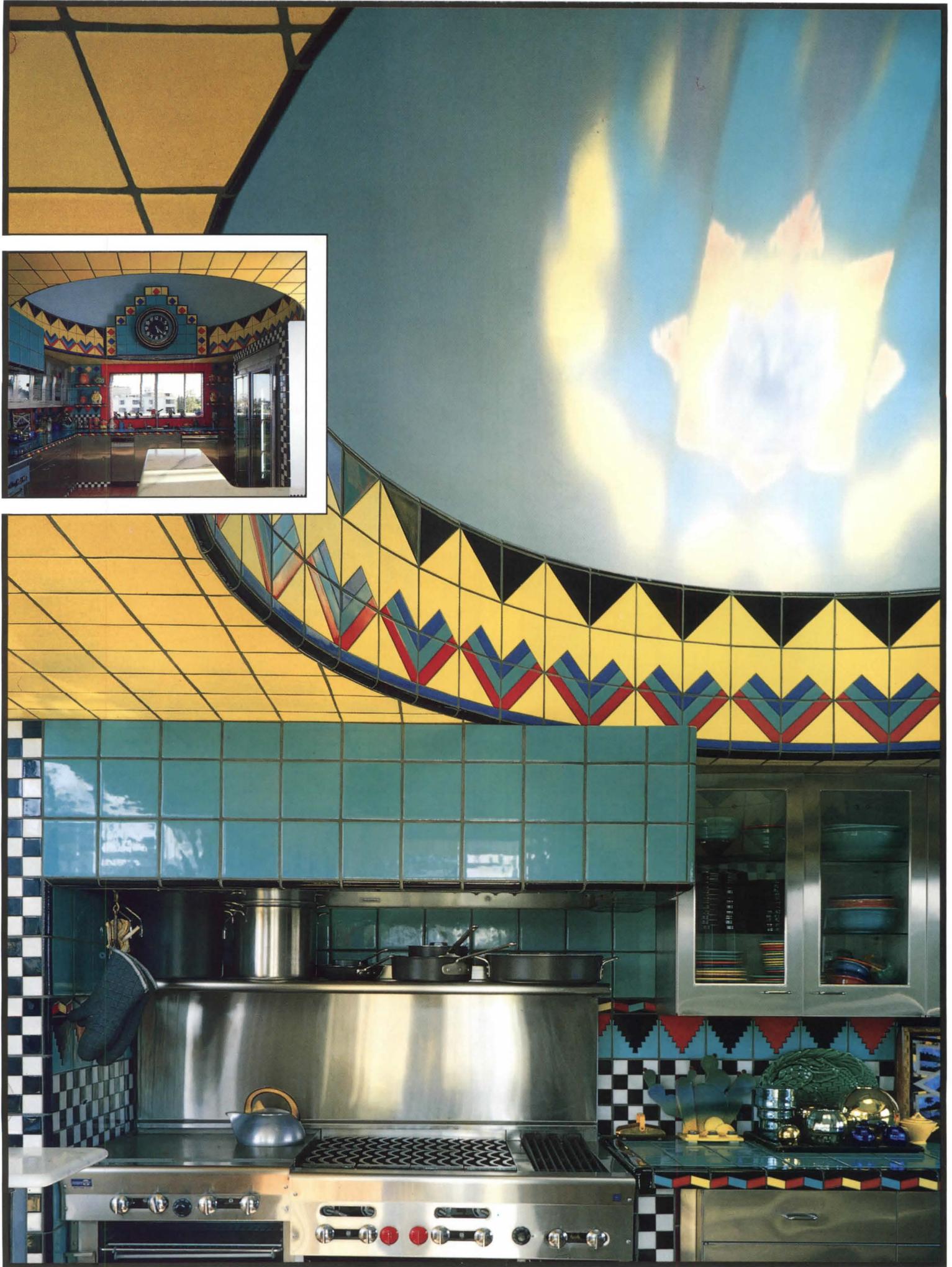
From neighboring rooftops (facing page), the Wosk residence appears to be a city in miniature (detail, this page, bottom right). On the south side, the corner greenhouse contains the dining room; the blue-domed volume houses the kitchen; and the vaulted shed is Miriam Wosk's studio (the pink stucco central form is the existing elevator tower). On the west, the corner living room structure is clad in blue tile "scales" (detail, this page, bottom left); the gilt ziggurat contains a den; and the black granite baldacchino (detail, this page, bottom center) crowns a curved stair opposite the elevator. The entry is at this (the fourth) floor; the stair leads down to the third-floor bedrooms and bathrooms.







Daylight floods the interior of the apartment, which has an almost panoramic view of Los Angeles. The black glass fireplace (top) echoes the forms of distant Century City, while the greenhouse dining room (center) looks south. Looking east from the living room, generous skylights reveal the exterior of the gilded ziggurat/den as well as the kitchen's blue dome. Inside the kitchen (facing page), tile patterns designed by Miriam Wosk adorn the walls and dome, for which she also designed a stained-glass skylight. The corrugated aluminum bar and column (this page) are Gehry creations, but the rooms also bear the unmistakable stamp of their owner, with Art Deco and contemporary art furniture, rugs designed by artists Sonia Delaunay and Juan Gris, and a piano from the S.S. Caronia. One of Wosk's paintings hangs in the living room (this page, top).





Looking west from the elevator entrance toward the living room (left), one of the baldacchino's black granite columns is visible to the right of the curved stair leading to the third-floor bedrooms (master bedroom, below). Miriam Wosk's studio (facing page) is a plain, corrugated-aluminum shed with a vaulted roof and generous skylighting. Wosk wanted the studio to have a stripped-down, industrial look, and both she and Gehry were chagrined to have to paint the metal exterior and enclose the interior beams to meet local code requirements.



Project: Wosk Residence, Beverly Hills, Calif.

Architect: Frank O. Gehry & Associates, Venice, Calif. (Frank O. Gehry, principal in charge; Gregory Walsh, Paul Lubowicki, Sharon Williams, Rene Illustre, design team).

Client: Miriam Wosk.

Program: remodeling of third and fourth floors of an existing four-story apartment building to include living and dining areas, kitchen, studio, master bedroom and bath, and guest bedroom and bath, totaling approximately 3500 sq ft.

Major materials: stucco, corrugated aluminum, steel, glass, granite, drywall, marble, mirror, ceramic tile, maple flooring (see *Building Materials*, p. 108).

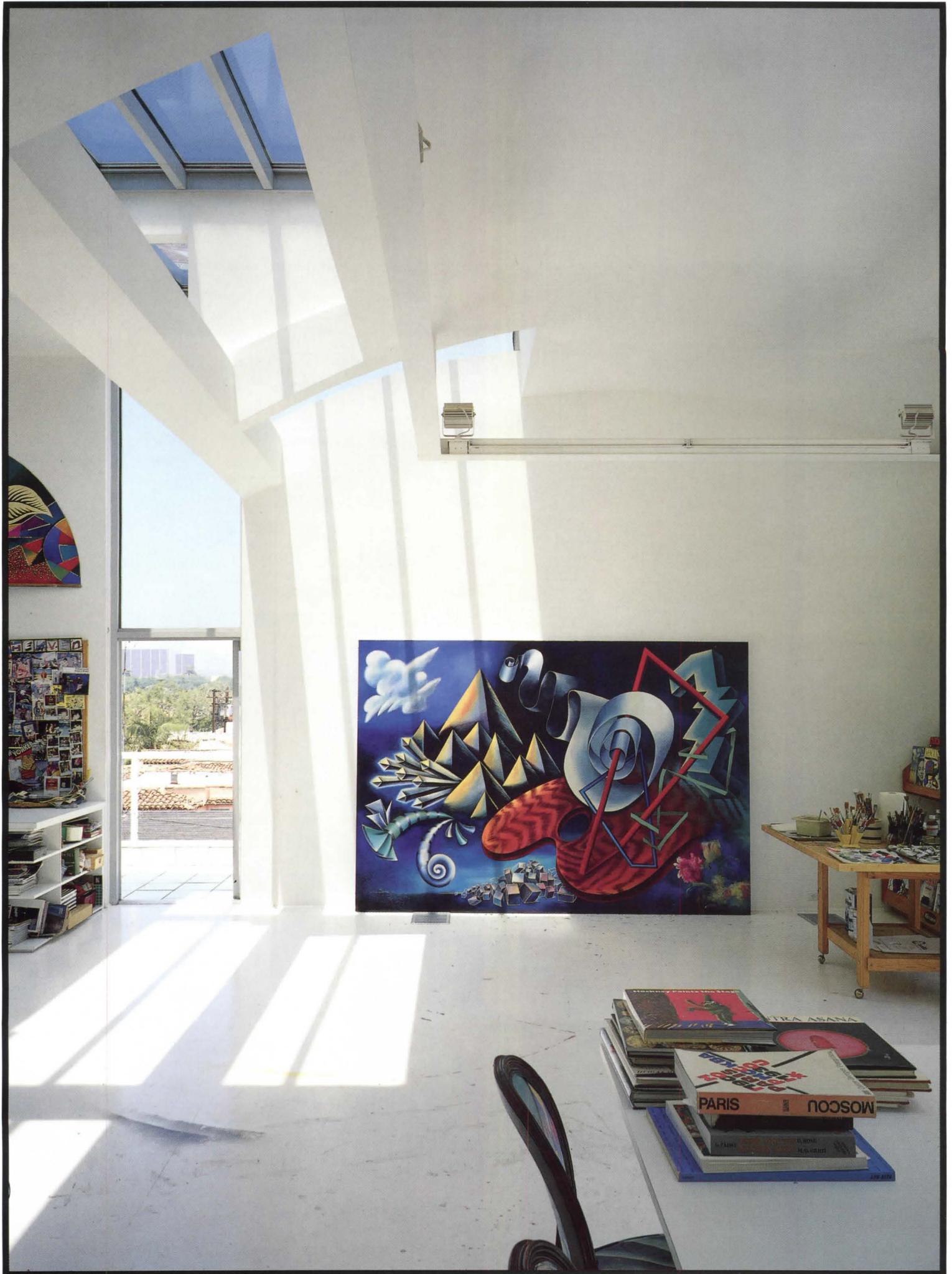
Mechanical system: forced-air heating with individual heat-pump units.

Consultants: Kurily & Szymanski, structural; Sullivan & Associates, mechanical; Athans Associates, electrical; Steve Galerkin, custom furniture and cabinets.

General contractor: Chartered Construction Company.

Costs: withheld at client's request.

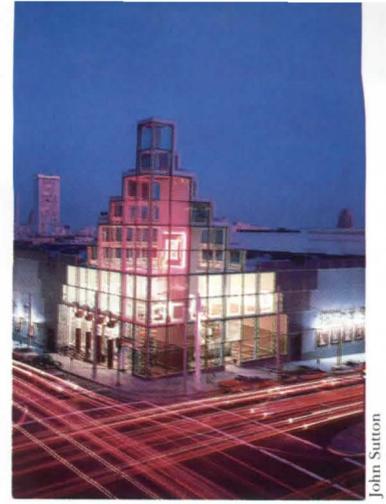
Photos: Michael Moran.



Entrance Cues



Entrances pose problems of security, safety, and accessibility. Solving those and other problems demands paying attention to how people actually use or misuse entrances.



John Sutton



John Sutton

“I am standing on the threshold about to enter a room,” wrote the English scientist Sir Arthur Stanley Eddington in 1928. “It is a complicated business. . . . I must shove against an atmosphere pressing with a force of fourteen pounds on every square inch of my body. I must make sure of landing on a plank travelling at twenty miles a second round the sun . . . (and) I must do this whilst hanging from a round planet head outward into space.” The difficulties Eddington, the scientist, had making an entrance are no worse than those an architect can have designing one. Forgetting our speed around the sun or our hanging out in space, an entrance is a complicated business.

A range of components make up even the simplest public entry, including sliding, swing, or revolving doors; closers; hinges; locks; handles; thresholds; weatherstripping; glazing; sidelights; transoms; floor mats; lighting; and signage. A number of companies make those products, over 150 in Sweets alone. And an array of standards and

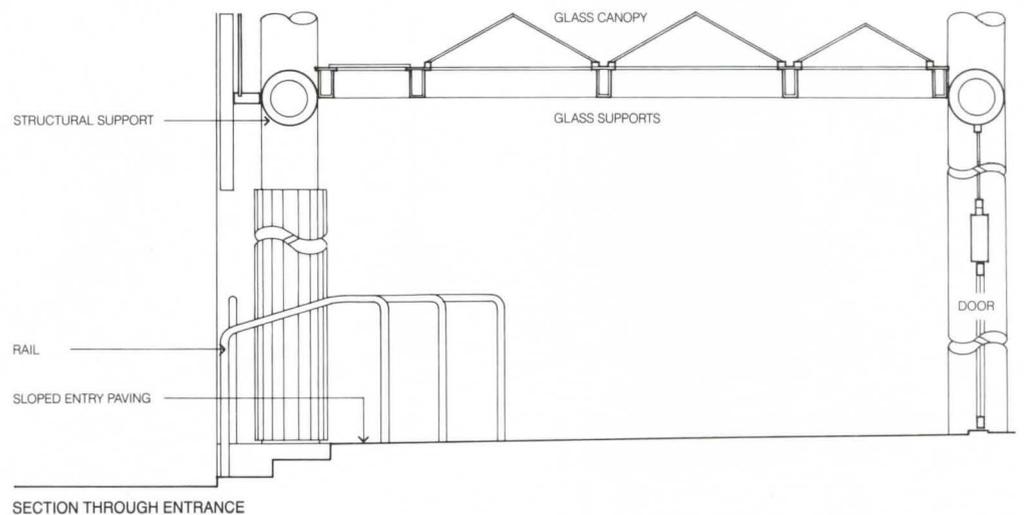
codes govern their use, regulating everything from the long-term durability and performance of products to the egress capacity and accessibility of entrances.

Yet complexity doesn't always bring complications. Ample reference material exists to help sort out the various regulations and components. Where coordination becomes difficult, such as that between door and hardware, consultants are available to help in the selection and specification of products (see page 45). To further simplify the process, many entrance manufacturers offer packaged systems that include the doors, hardware, sidelights, glazing, and even lighting.

The Balance of Scales

Where the complication arises is in the design of entrances. Knowing no simple formula, no handy reference book or regulation, their design demands balancing the sometimes conflicting interests of aesthetics, security, safety, maintenance, accessibility, and cost.

In the area of aesthetics, the scale of en-



Kaplan, McLaughlin, Diaz have turned the lobby of the Galaxy Theater in San Francisco into a huge glass crystal (top) that not only highlights the theatrical function of the building but makes the entry location very clear. The actual entrances (left, above) are recessed into the glass lobby to protect people queueing at the ticket booth. Internally lighted glass cubes serve as column capitals to further identify the entrances.

Handicapped people have a level access into the building where the slope of the site puts the entry and sidewalk at the same level. Of note in this building are the number of strategies used by the designer, Robert Karn, to emphasize the entrances. The enlarged scale, the dramatic lighting, the recess, even the recall of column capitals all work together well.



RS Photography

trances presents one such conflict. While human use determines the size and arrangement of doors and hardware, a person distant from and perhaps unfamiliar with a building must be able to identify its entrances. They must relate to both the scale of the person using them and the scale of the building and context within which they sit. Recent efforts at mediating those different scales have made entrances more important and more visible elements in buildings. Further bolstering that trend has been the renewed interest in imagery and wayfinding, since entrances define people's impressions of and orientation to buildings.

Securing Security

The visibility of entrances, though, does more than impress or orient people; it enhances their security. Oscar Newman's *Defensible Space* is the best known of several studies on the relationship of entrance visibility and security. Ensuring that an entrance (and exit) can be seen from both outside and inside a

building, minimizing hiding places, making travel routes short and direct, locating parking lots away from buildings, and erecting symbolic as well as physical barriers are some of the major crime-prevention techniques to emerge from those studies.

Not that those techniques apply in every case. Research conducted by James Wise & Associates into bank robberies has shown that well-lighted banks with large windows are more, rather than less likely to have a takeover robbery because the visibility of the interior is more easily cased by would-be robbers. Unless pedestrians also can see easily into the interior, Wise recommends limiting its visibility.

The most visible entrance also won't secure a building if it has poor quality doors and hardware. Solid core doors, laminated or thick plastic glazing, reinforced frames (particularly at the latch and hinges), concealed hinges, and electric or mechanically operated deadbolt locks all decrease a burglar's chances. So does the various electronic

monitoring equipment now available, such as motion or sound detectors, security cameras, and card access systems.

Preventing the vandalism of entrances requires slightly different strategies. Concealed hinges and closers and securely fastened knob handles have the best resistance to vandals. (Door pulls and lever handles, in contrast, are easily pried off.) The vandalism of closed doors usually involves the pounding or scratching of the surface, so metal-faced, solid-core doors with a minimum of (plastic or laminated) glazing and a surface coating that matches the color of the substrate offer the most resistance. Locating the middle hinge one third of the way down from the top and using anchor hinges along the top of the door can help prevent its vandalism when open.

The Accidental Entrance

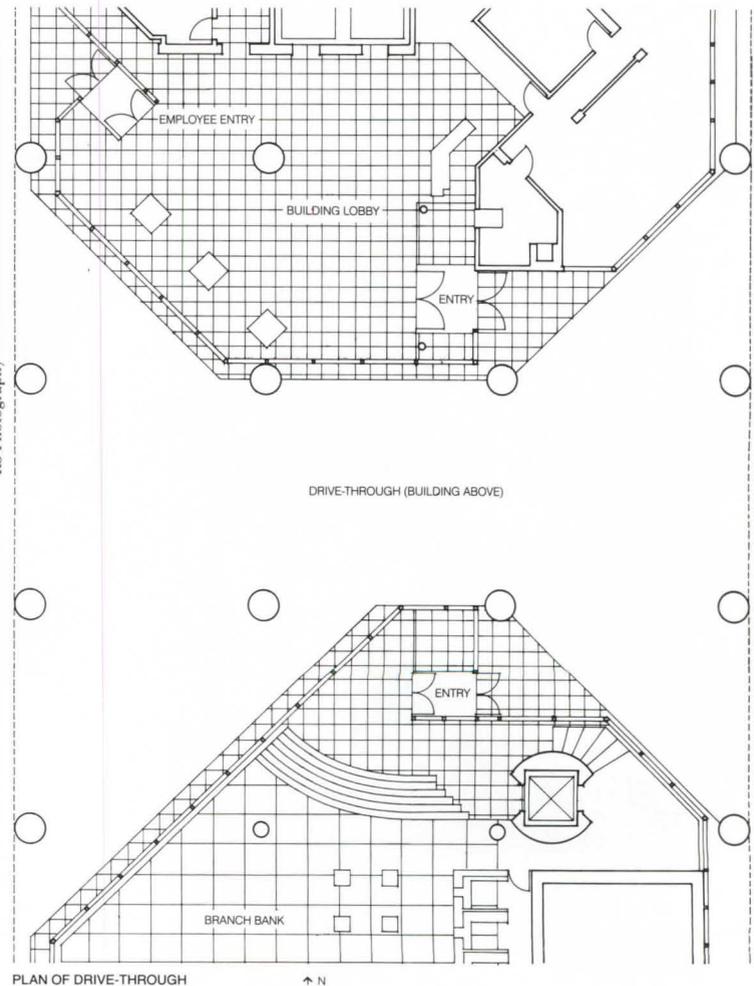
Doors account for one third of all accidents in the home, according to Ralph Sinnott, a British researcher who has investigated the



RS Photography

The headquarters of the United Jersey Banks in Princeton, N.J., by The Hillier Group (top) has a drive-through entrance that separates the office entrance from that of the branch bank. The drive-through also gives visitors parking at the front of the building and employees parking at the rear equal access to the building. The enlarged opening (above), made to appear two stories high through the use of clear glass in a bridge over the drive, also helps iden-

tify the building's entrance from a nearby highway. Knowing that the size of the opening would increase the velocity of the wind moving through it, the architects kept the entrance away from its diagonal or inside face. Interior vestibules (right) further reduce the effect of the stronger winds on air infiltration. The architects' awareness of those issues helped make a success of a difficult situation.





Wolfgang Hoyt © ESTO

safety of entrances. While the visibility and security of doors can help prevent people from colliding with or getting caught in them, entrance safety follows its own set of rules.

Accidents involving collisions include those where a door swings into circulation or activity space or into other open doors. Using laminated glass, making handles large enough to distinguish glass doors from their sidelights, keeping activity areas away from entrances, and planning for the full swing of all doors—be they pedestrian doors or doors on equipment such as appliances or lockers—can help prevent accidents, says Sinnott.

Environmental forces, not always predictable, also can cause collisions with doors. Bright sunlight can cause momentary blindness on entering or leaving a building. To help prevent people from walking into a glass door, it should have easily seen hardware or surface pattern or design. Increased lighting levels in the lobby and spotlights aimed at the glass also can reduce the collision hazard.

At night, light aimed about four feet in front of a door will prevent people from walking into it as they see their reflections in the glass.

The wind presents another source of collisions at entrances, causing doors to whip open or slam shut. Ideally, entrances should not face into the prevailing winds or drafts and should not stand at diagonal corners. If they must, revolving or balance doors should be used and windbreaks considered.

Entrances can become the site of falls as well as collisions. Overhangs, secure nonslip mats, rough-textured paving material, and a grade sloping away from the entrance will reduce that risk. Of all those precautions, positive drainage is the hardest to achieve, requiring vigilant site supervision.

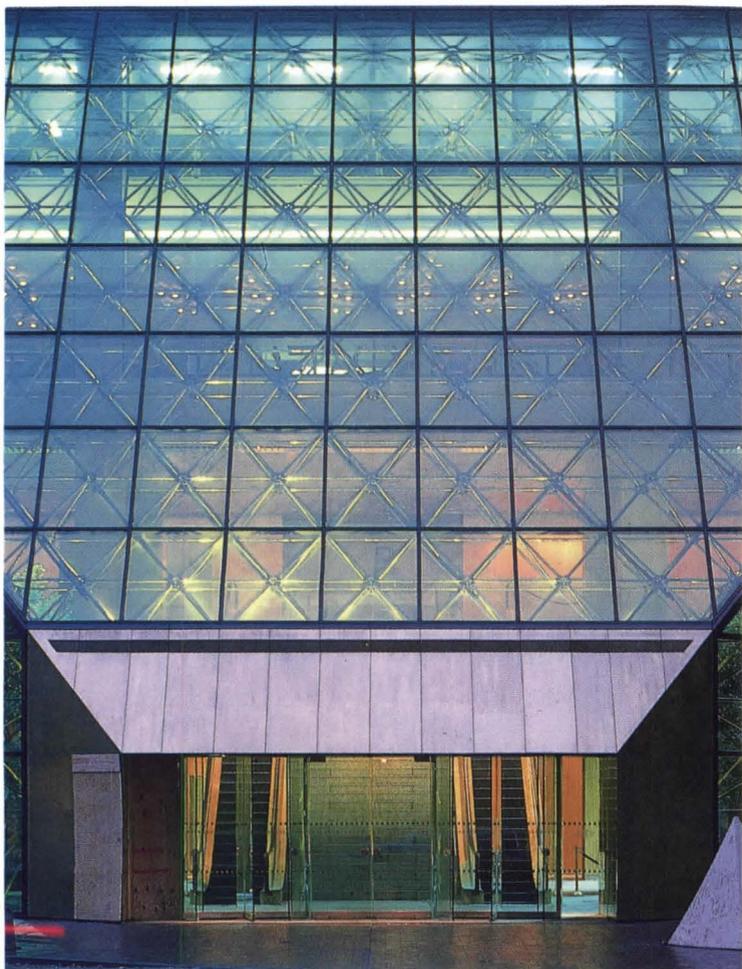
The other type of accident that often occurs at entrances involves people getting caught in or by a door. Children getting their hands pinched between the heel of a swing door and the frame is a common example. Sinnott recommends the use of doors with heels recessed into the frame, balance doors

with stile attached to the frame, or swing doors with wide edge seals made of a resilient material. Open-ended lever handles can catch people's sleeves and cause injury. The simplest solution to that, and one that also satisfies the requirements of the handicapped accessibility codes, calls for a lever handle with an end return.

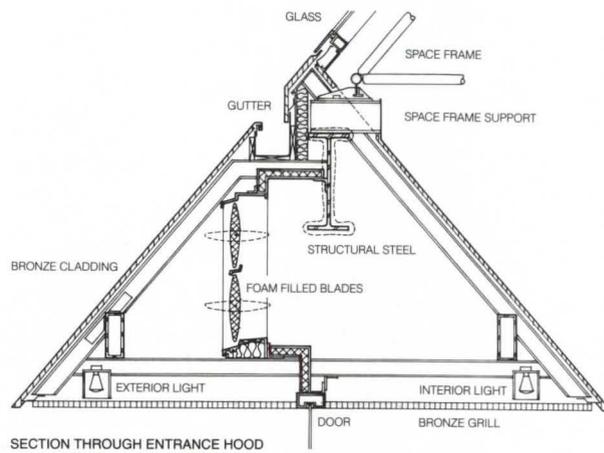
Air Handling

Entrances lose energy in several ways. Conduction and radiation losses are fairly easily controlled through the use of wood, insulated metal, or double glazed doors and wood or metal frames containing a thermal break.

Convection losses, the result of air infiltration around the door or door frame, are more significant and less easily stopped. While revolving doors, entry vestibules, door closers, and edge seals will reduce air infiltration, they can present problems. For example, the codes governing accessibility for the handicapped so limit the pressure and return of swing doors that, unless electric or com-



Wolfgang Hoyt © ESTO



Continental Center in New York City, designed by Swanke, Hayden, Connell Architects, has a four-story atrium with entrances at three corners (top). The bronze-clad entrance enclosures (left) continue the slope of the atrium glazing and contain a gutter and leader system to accommodate runoff (above). The enclosures also contain recessed lighting on both sides of the doors, a fan-powered heating system that creates a down-

draft in front of the entry, a smoke exhaust system that works in conjunction with similar ventilation equipment at the top of the atrium, and steel columns and beams that support outriggers that, in turn, support the atrium's space frame. While the entrances go against the current trend of enlarging the scale of entrances to enhance their visibility, the mirror-finish bronze cladding makes the entrances unmistakable.



Norman McGrath

bined pneumatic and hydraulic closers are installed, the stack effect in buildings can keep the doors from closing.

Inadequate maintenance, particularly of the edge seals around doors, also reduces their resistance to air infiltration. Interlocking metal weatherstripping can become bent, spring-type seals can lose their tension, and caulking can crack or lose adhesion. While no design can completely compensate for inadequate maintenance, it can avoid some obvious problems. On heavily used doors, concealed weatherstripping that depends upon simple contact, sweep, or compression will help ensure a longer lasting seal. Overhangs and sloped surfaces outside entrances will help prevent water from collecting under sills and thresholds. And high-quality caulk will help reduce sealant failures.

The durability of an entrance also depends upon the quality of the products used. If frames weaken, parts break, and finishes deteriorate prematurely, no amount of maintenance will ensure an entrance's thermal per-

formance, or, for that matter, its security or safety. The first and last element people encounter in a building is the entrance; it is not the place to cut costs.

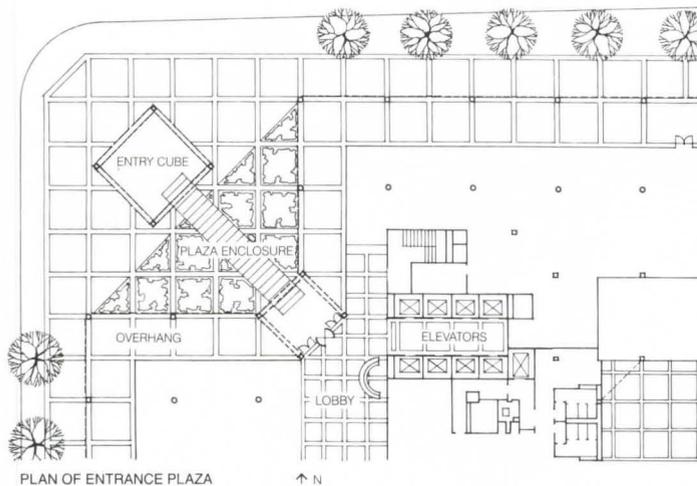
Access and Egress

The accessibility of an entrance also encompasses issues of visibility, security, and safety. The research firm Building Diagnostics Inc. has investigated those issues in housing for the elderly. It stresses the importance of one address per entrance and one entrance per street; of elements that identify the entrance from a distance and that communicate the desired image of the building; of a vehicular pull-over and short-term parking near an entrance; of an outside overhang and a shelf on which to set objects in a locked vestibule; of an inside waiting area located near and with a view of the entrance; and of a direct path between the entrance and elevator that bypasses the waiting area. The relative importance of those elements may vary with different building types. But the need for

easily identified, clearly seen, directly accessed, and well-sheltered entrances applies to most structures used by the public.

Exits face similar access problems. For example, the codes specify illuminated signs and emergency lighting along egress routes. But research has shown that emergency lighting can reduce the contrast of letters in an exit sign and that smoke can quickly obscure exit signs located above doors. Seeking a better relationship of exits and exit lighting, researchers have investigated such alternatives as an exit beacon near the floor that would serve as a target for oncoming pedestrians and illuminate any obstacles in the way; or, in research Fred Malvern recently completed for the Lighting Research Institute, as blinking lights along the ceiling or floor that would double as emergency lighting and as directional cues to exits.

High-rise and historic buildings also have prompted a reevaluation of egress requirements, since their size or complexity may not allow their complete evacuation during a fire.

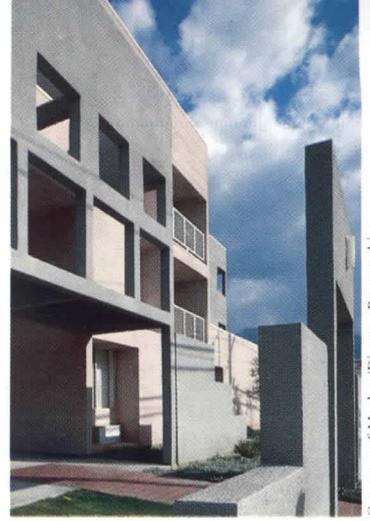


The main entrance at Champion International's headquarters in Stamford, Conn., by Ulrich Franzen & Associates faces a corner plaza and a major intersection in the city (top). An open cube announces the entrance at a scale compatible with the size of the building, while a glass and steel enclosure leads visitors diagonally across the plaza to the actual entrance doors, which are protected by a diagonal overhang (above and

right). The plaza enclosure not only keeps people dry; it keeps the paving materials dry, reducing people's chances of slipping. And it protects people from downdrafts and high winds that are common at corner locations and exposed sites such as Champion's. ("The wind nearly blew us away when we first visited the site," recalls Ulrich Franzen.) This entry sequence is a good solution to an often ignored problem.



Norman McGrath



Courtesy of Mutlow/Dimster Partnership

The idea of exiting into a refuge area within the building, protected by fire doors on fusible-link closers, smoke exhaust systems, air curtains, or water deluge systems, is one of several alternative life-safety measures allowed by many codes.

Exit the Entrance

An entrance is more than a means of entering or exiting a building. If well designed, it can orient visitors, bar intruders, prevent accidents, save energy, encourage access, as well as denote owners' social status, artistic taste, economic position, or even their sense of humor. "Doors," said the author Val Clery, "are amongst those meaningful features of life that we see often and notice seldom."

Yet noticing doors—how they're used and the problems that they incur—is an essential part of their design. The best entrances come, not from a reference manual or code book, but from a designer's careful observation. Every act of entering a building should

become an opportunity for analysis, to the point where, as Eddington said, "It is easier for a camel to pass through the eye of a needle than for a scientific man to pass through a door." **Thomas Fisher** ■

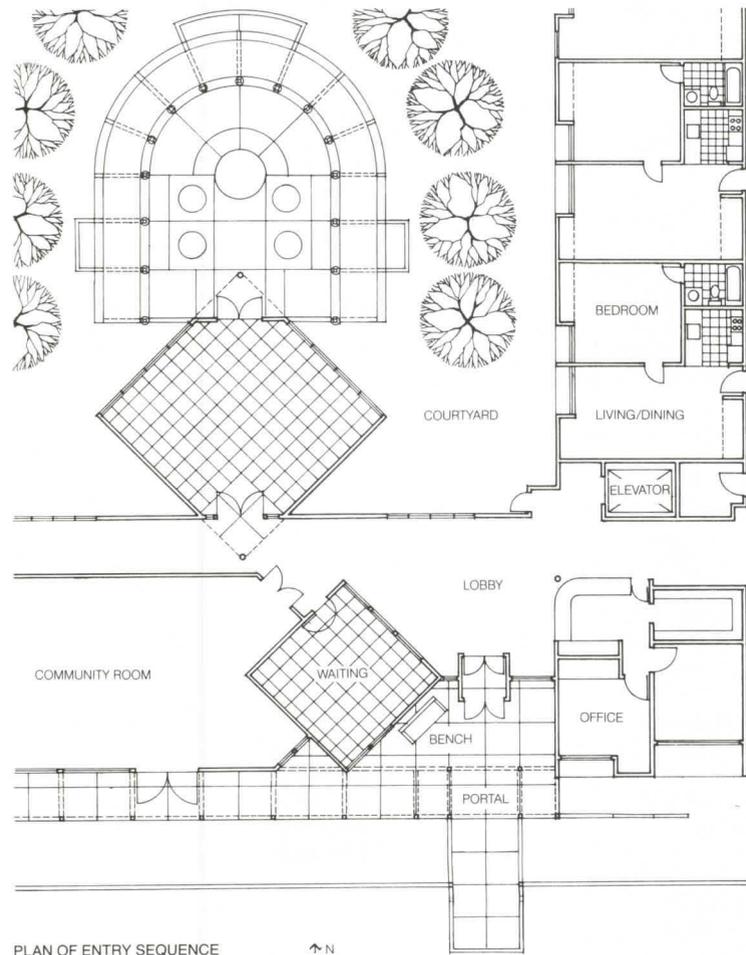
Acknowledgments

We would like to thank the following people for contributing to this article: Alice Forster, Ulrich Franzen, Ulrich Franzen & Associates; Linda Williams, Robert Blakeman, The Hillier Group; Elaine Rose, Herbert McLaughlin, Kaplan, McLaughlin, Diaz; John Mutlow, Mutlow/Dimster Partnership; William Koelling, Jerry Avalos, Swanke, Hayden, Connell; John Zeisel, Building Diagnostics Inc.; Rus Eckland, Ellison Bronze; Terry Vick, Amarlite; John Milslagle, Drew Downing, Kawneer; Jean Wright, David Johnson, PPG; Anita Alvare, Horton; H. Paul Moore, NPM; Robert Spargo, Rixson-Firemark; John Farrington, General Products; Bruce Forbes, United States Aluminum; Robert MacDonald,

Detex; Richard Tracy, Crane Fulview; Pat Olmsted, Von Duprin; Darcy Otis, Stanley; John Bartley, Baldwin Hardware; Max Blum, Blumcraft; Donald Oehler, Fenestra; Jan Tava, Willdon; Claud Frederick, Steelcraft.

Further Reading

Graphic Standards and the Selection Data volume of Sweets catalog have extensive material on entrance design and products. Ralph Sinnott's research into safety issues has been published in his book *Safety and Security in Building Design* (Van Nostrand Reinhold, N.Y., 1985). The research into "Midrise Elevator Housing for Older People" that Building Diagnostics Inc. conducted for HUD is available from the firm (77 North Washington St., Boston, MA 02114).



Courtesy of Mutlow/Dimster Partnership

Verdugo Hacienda, designed by John Mutlow of the Mutlow/Dimster Partnership, is an elderly housing complex in Los Angeles, Calif. A portal pulled away from the building emphasizes the entrance from a distance (top). The entrance itself is recessed, to protect people from the elements, and contains a bench for waiting. Views into the entrance from an adjacent library/lounge enhance its security (above). In-

side, residents have a short, direct route to the elevator, past the reception desk and mailboxes (left). That, plus the large size of the lobby, offers ample opportunity for informal interaction. To get the residents to use the courtyard space, the architects made it visible from both the lobby and the large dining and assembly room. The entire entry sequence shows a clear understanding of the needs of elderly people.

Technics-Related Products

The Owl® outdoor luminaire has the option of 35- or 50-watt high-pressure sodium or 9-watt fluorescent lamps. It uses a Lexan® polycarbonate prismatic refractor, which is easily installed in the ballast housing by a tamper-resistant method. Another option is a Lexan polycarbonate frosted ball globe. General Electric Lighting Systems Dept.

Circle 114 on reader service card

Quarry tile design guide covers commercial and residential applications. There are 39 color installation photos, 36 detail drawings, and descriptions of patterns shown. Applications illustrated include offices, restaurants, hotels, malls, plants, exteriors, transportation, and residences. American Olean Tile.

Circle 224 on reader service card

Hollow Metal Doors and Frames brochure explains the capabilities of manufacturers who are members of the Hollow Metal Manufacturers Association. It includes fire doors, frames, multiple swing door opening frames, and stainless steel and louvered doors. Charts

show fire ratings for several styles of doors and frames, and there are recommended architectural specifications. Member companies are listed. Hollow Metal Manufacturers Association, National Association of Architectural Metal Manufacturers.

Circle 225 on reader service card

'Door Control the Dorma Way' describes and illustrates a series of door operators, including surface, floor, and overhead models. There are fire/life safety controls, including one with integral smoke detector. The eight-page brochure includes accessories for tempered glass installations. Dorma Door Controls, Inc.

Circle 226 on reader service card

Marquee™ Back-Lit Awning Fabrics data sheet has color photos illustrating how the awnings work to illuminate company logos and designs. The 62-inch-wide fabric is triple coated with acrylic for prolonged life and easy cleaning. It is flame retardant and resists damage from mildew and normal atmospheric chemicals. Astrup Company.

Circle 227 on reader service card

Floor grids and mats to prevent tracking dirt and water into buildings are available for recessed or surface installation.

Floor grids are tread bars locked in a U-channel and are available with carpeting, vinyl, abrasive, or serrated aluminum surfaces.

Floor mats roll back for easy cleaning underneath. They are available with carpet treads in 20 colors or vinyl treads in 7 colors. Balco, Inc.

Circle 115 on reader service card

Surface-mounted outdoor luminaires are of rugged aluminum construction, fully enclosed and gasketed, and UL listed for wet locations. There are round and square models, each in two sizes, for ceiling, pendant, wall, or up-and-down lighting. Lamp options are mercury vapor, metal halide, or high-pressure sodium up to 250 watts. mcPhilben Lighting.

Circle 116 on reader service card

A bollard pole for patios, walkways, driveways, and other pedestrian areas has a heavy-gauge aluminum frame and panels with durable bronze acrylic coating. It is 36" high, 10" wide, 1½" deep, with two anchor bolts for

rigid mounting. A fully removable front panel permits easy installation. Lighting options are incandescent, fluorescent, and high-pressure sodium. Ruud Lighting, Inc.

Circle 117 on reader service card

Grounds-Keeper™ indoor and outdoor mat provides all-around protection of entrances and other heavy traffic areas. Its long-wearing 100 percent olefin pile traps dirt and up to 1.2 gallons of water per square yard. A solid vinyl backing keeps moisture from seeping through. The mat is easily cleaned with a hose or vacuum cleaner. Colors are blue, brown, charcoal, avocado, and red. Durable Mat Company.

Circle 118 on reader service card

Entry foot mats and gratings to control dirt and eliminate slippery floors have self-cleaning recessed treads that are closely spaced, yet allow dirt and sand to collect below the surface. They are easily removed for cleaning. There are eight carpet colors and seven vinyl colors; standard finishes are gold anodized, mill finish, and medium bronze aluminum. J.L. Industries.

Circle 119 on reader service card



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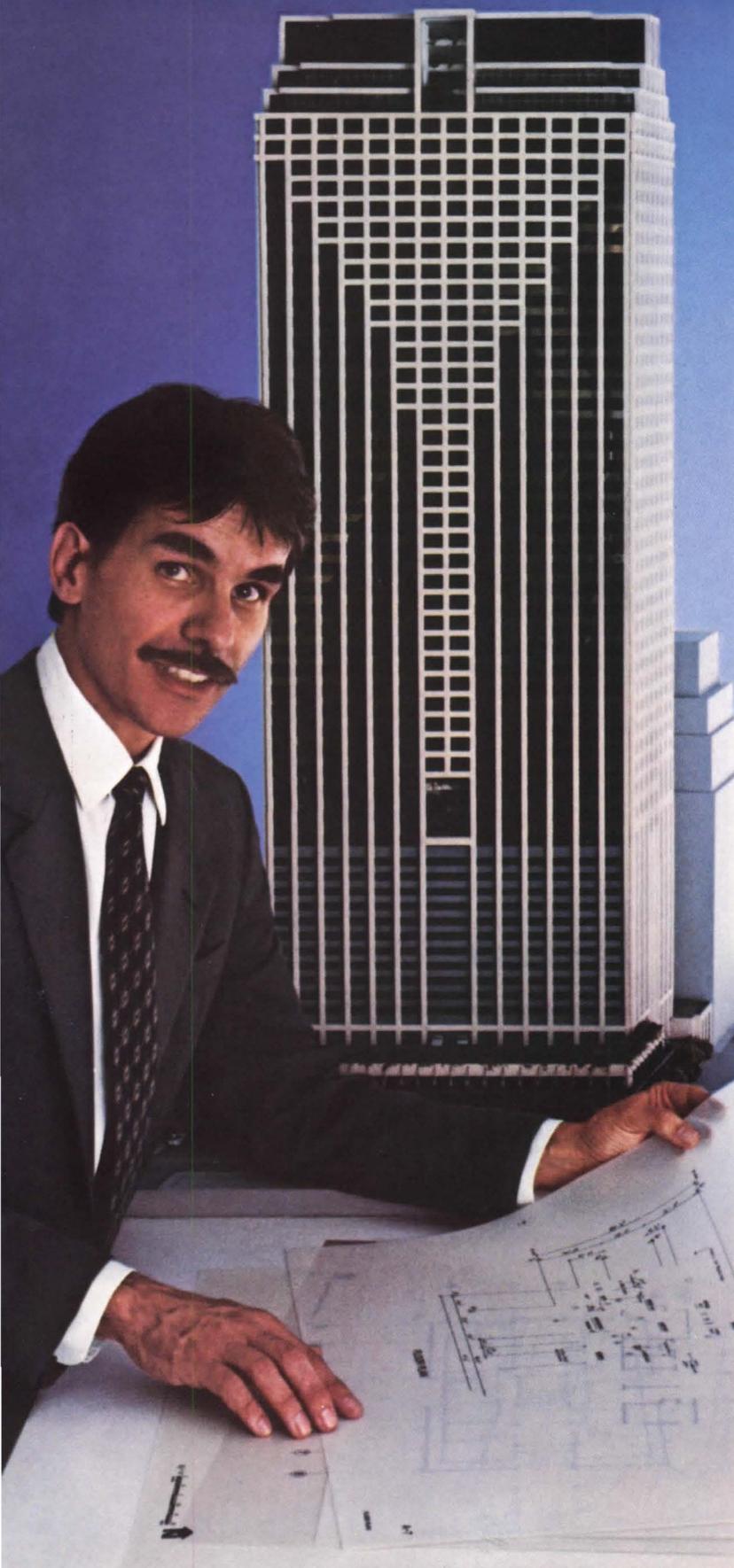
Both series, made with genuine marble, come in 24 standard colors. Custom colors are available.

Flexible accent strips and cove base trim pieces complete the story.

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*James W. Rivers, Vice President
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The Paneline exit device is an ideal way to meet life safety codes and build in extra security without sacrificing style. It is available on Kawneer standard series 190, 350 and 500 entrances. And the optional matching panels for vestibule doors, and fixed rails for sidelights, and center lights, allow design continuity to be maintained throughout the entrance area.

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Books

American Modernism

Of the many trends in today's architectural thought, perhaps the most popular is the one that divides it into the distinct and opposing camps of Modernists and Post-Modernists. If this division is accepted, one is forced to place Gwathmey/Siegel and Mitchell/Giurgola, whose work is illustrated in two recent publications, on the same side of the debate. The long and illustrious careers documented in these publications speak eloquently of a continued faith in many Modernist precepts that have been rejected by equally successful Post-Modernist architects. On the other hand, a comparison of these two books affords a unique opportunity to examine the complexities within the so-called Modernist camp and to reveal the meaninglessness of such simplistic categories. Just as Modernism itself encompassed a multiplicity of concerns, the architects who today persevere in exploring those concerns have not produced a monolithic body of work. Gwathmey/Siegel and Mitchell/Giurgola have turned not only to different Modern architects for inspiration, but they have also been influenced by different historical moments within the Modern era. Therefore, despite a certain amount of common ground, the different ways in which each has looked at Modern architecture has inevitably affected the form and significance of their work.

Mitchell/Giurgola Architects is a beautifully illustrated volume, with a somewhat unconventional mode of organization. Rather than following a simple, chronological sequence, the architects have chosen to group their projects typologically, with chapter headings such as "Meeting Places," or "Places for Study." This discourages charting of stylistic evolution and encourages evaluation of each building "separately according to its ability to acknowledge the variety of human pleasure, desires, needs and aesthetic concerns which are bound up in any project," as Giurgola states in his introductory essay. Moreover, the architects included a few preparatory sketches that offer a glimpse into the design process itself. The exploratory nature of the presentation is reinforced by an analysis of the firm's work by Kenneth Frampton, which points out its historical importance and its relationship to important current concerns.

A completely different attitude towards architectural presentation is evident in *Charles Gwathmey and Robert Siegel, Buildings and Projects 1964-84*. The intention of this book seems to be not exploration, but celebration and documentation. The chronologically displayed work is given no introduction other

than a short statement by the architects. However, allowing the work to speak for itself emphasizes, particularly in formal terms, certain consistencies in the firm's understanding of architectural design. For example, the suburban house, with which Gwathmey/Siegel have had much practice, emerges as a building type defined as possessing an ideal, essential structure, one that is generally geometrically complex and conceptually abstract. By far the most significant invariable throughout the book, however, is the fact that almost every project description begins with: "The problem was to design a..." For Gwathmey/Siegel, architecture might be seen not an environment to be created, but a problem to be solved. Defining design as "problem solving" is fundamentally, of course, one of the ways in which the architects articulate their indebtedness to a particular tradition of thought that was integral to the development of Modern architecture. Specifically, they refer to the belief that, provided with a set of preconditions, a rigorous application of logic will invariably produce the most appropriate design, both functionally and aesthetically. Therefore, with this short phrase, they have adopted a highly charged, rhetorical legacy.

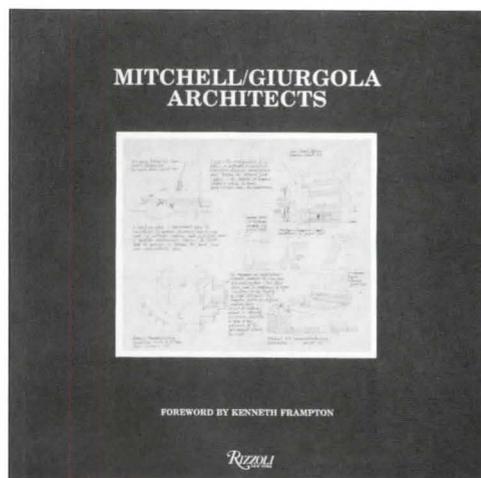
Their most pervasive and enduring influence is derived from Le Corbusier's work of the late 1920s, echoes of which can be seen throughout their career, and which continue the alliance between their work and that of Richard Meier and Peter Eisenman. As the firm's houses have grown in scale and complexity, they have departed somewhat from the earlier expressions of clarity and repose, epitomized by the house and studio Gwathmey built for his parents in 1965. In contrast, the de Menil house of 1979 in East Hampton, New York, is based on loosely connected geometric elements and elaborate framing devices that make grasping a single or overall image extremely difficult. Nevertheless, despite this digression from the absolute coherence of Le Corbusier's early villas, that influence remains clear.

The primary influences of Mitchell/Giurgola are not only more numerous than those of Gwathmey/Siegel, but the uses to which they have been put are also exceedingly complex. The firm's interest in Le Corbusier, for example, has included the work of the 1960s, such as La Tourette, as well as that of his purist period. As representative of the Philadelphia School, Louis Kahn has been an imposing presence. However, Mitchell/Giurgola's Brutalist vocabulary has frequently been softened by the more organic forms of some European architects, particularly those of Alvar Aalto, as Frampton points out in the

Charles Gwathmey and Robert Siegel: Buildings and Projects 1964-1984, edited by Peter Arnell and Ted Bickford. New York, Harper & Row, 1984. 295 pp., illus., \$50; paperback, \$29.95.

Mitchell/Giurgola Architects, Foreword by Kenneth Frampton. New York, Rizzoli, 1983. 271 pp., illus., \$29.95 paperback.

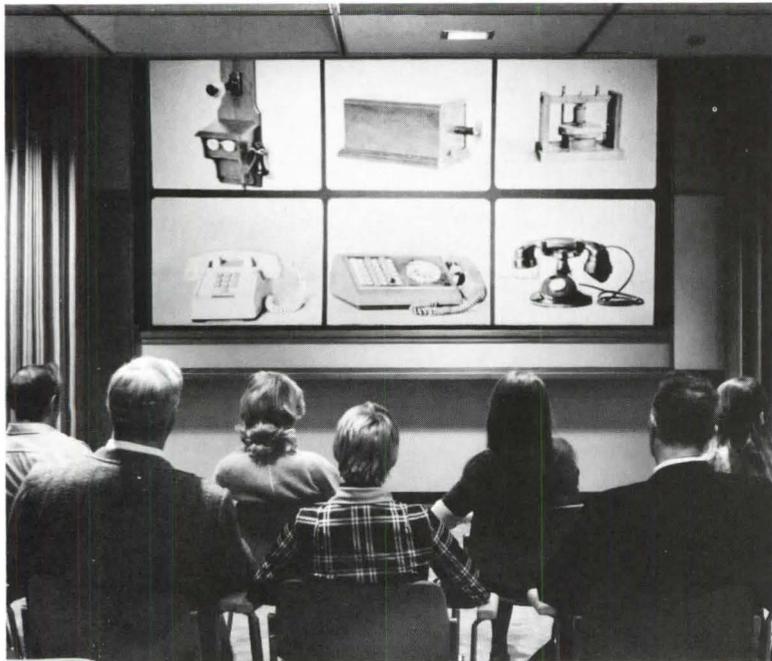
The Practical Specifier, A Manual of Construction Documentation for Architects by Walter Rosenfeld. McGraw-Hill Book Company, New York, 1985, 181 pp., \$29.95.



Foreword. Although there is some intertwining of these various formal precedents, the architects' intention does not seem to have been the forging of a novel vocabulary. Rather, a particular influence tends to become dominant in response to a project's specific physical or conceptual condition. For example, the sculptural elegance of the United Way Headquarters Building in Philadelphia of 1971 befits its urban context, while the academic setting of Bryn Mawr's Graduate Center of 1981 led the architects to use a more expressionistic vocabulary.

Mitchell/Giurgola have created successful corporate headquarters, office buildings, industrial facilities, and domestic buildings. A significant amount of their practice, however, has also been dedicated to urban design and civic architecture, types of commissions that reveal the firm's preoccupation with pro-

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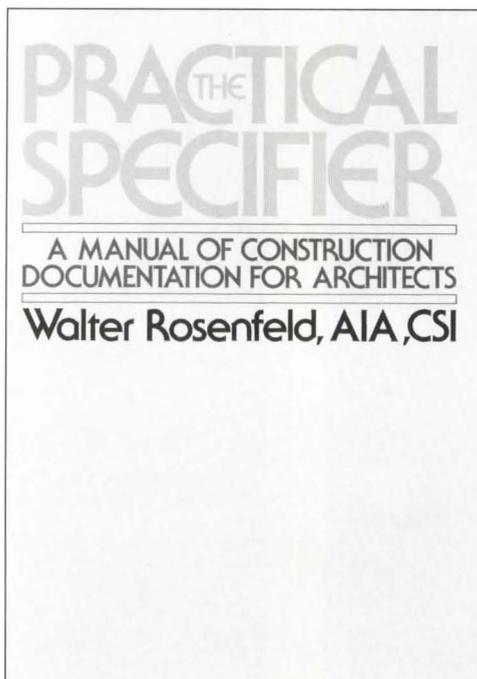
viding the general public with a "sense of place." Furthermore, according to Frampton in the Foreword, Mitchell/Giurgola "alone among the large production offices of the American scene have succeeded in creating a large body of public work which is sensitive, appropriate, economic and beautifully built. . . . Their practice has been exemplary, for they have succeeded, in a highly privatized epoch, to build responsively for the needs of the society as a whole."

Although Gwathmey/Siegel still pursue issues that were in evidence in the 1960s, they have responded to recent trends by introducing into their work episodes of formal symmetry. The appearance of more traditionally defined spaces also can be attributed to current interest in pre-20th Century formal conventions. However, the architects sum up their attitude towards Post-Modernism in their introduction, where they condemn "historical misinterpretations and misquotations resulting in cartoon images rather than a true new reality" as "suspect." In contrast, Mitchell/Giurgola's evolution has depended on a wide range of architectural precedents, which have enabled them to be more receptive to new or re-discovered architectural traditions and to incorporate them into their architectural vocabulary. The Parliament House for Australia, in Canberra, is an excellent example of Mitchell/Giurgola's ability to integrate and synthesize a multitude of ideas. The firm has learned some of the indisputable lessons of Post-Modernism, such as contextual responsibility and the value of properly used tradition. At the same time, however, they have retained the worthiest of Modernism's aspirations, namely a social conscience and dedication to the quality of man's experience of architecture.

These two monographs, albeit in different ways, illustrate the growing pains Modern architecture is now suffering. For example, while Gwathmey/Siegel remain committed to the forms of Modernism, they acknowledge in their introduction that Modernism "has not been able to solve the large scale or urban problem," even though urbanistic issues were crucial to the development of Modernism and constitute part of its historical importance. Sympathy for Modernism's physical apparatus combined with antipathy for some of its theoretical underpinnings is a conflict experienced by many architects today. Giurgola, on the other hand, has loosened his grip on the Modernist vocabulary in an effort to "design places and accommodations which have a more apparent significance for people's lives," a goal expressed in his introductory essay. However, a detractor might consider this to be an abandonment of Modernism's aesthetic ideals. Ultimately, the greatest testimony to these paradoxes is the very existence of the monographs themselves and the avid market they represent. They are symptomatic of the tremendous pressure our culture exerts on the profession by demanding digestible and immediate information. Both firms, however, are attempting to keep up with this public while hoping to maintain the slower pace necessary for thoughtful architectural production.

Sylvia Lavin

The reviewer is a doctoral candidate in architectural history at Columbia University, New York.



Specification Writing

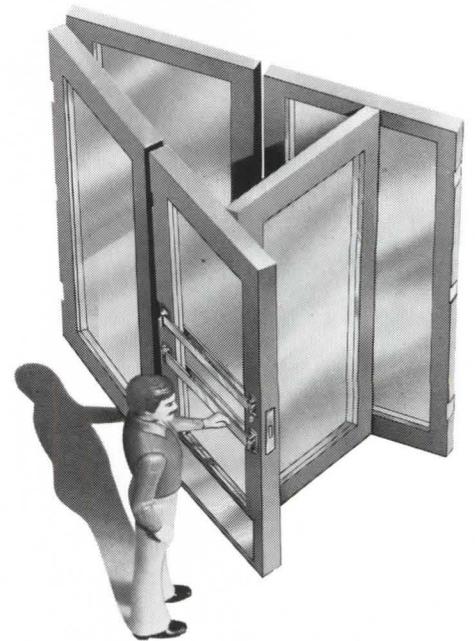
P/A's contributing editor Walter Rosenfeld has written a book entitled *The Practical Specifier*, based upon his experience as the head of the Specifications Department at The Architects Collaborative. The book covers three broad topics: the project manual, the context within which the specifier works, and the specifier's role. A fourth section in the book contains appendixes that include an article on communication and a sample outline specification.

While many of the chapters first appeared as articles in P/A and may be familiar, their direct, common sense approach makes them worth rereading. Rosenfeld ranges from technical questions, such as when to have a bid opening and how to evaluate new products, to those more broad in their implications, such as who owns a project manual and how specification writing relates to other types of prose.

If one idea emerges in the book, it is the sheer complexity of specification writing—fraught with uncertainty and linguistic traps, and valued according to its consistency and clarity. And if one attitude seems a constant refrain, it is, as Rosenfeld says in various articles, "recognizing . . . the limitations of the project manual," "proceed(ing) cautiously," and "choosing wisely." The practical specifier is a careful specifier. And the *Practical Specifier* is a careful and thoughtful book.

Thomas Fisher

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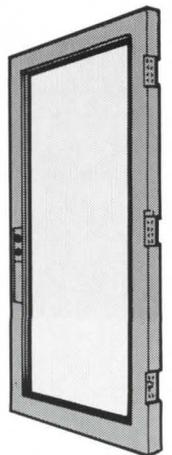


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New Products and Literature

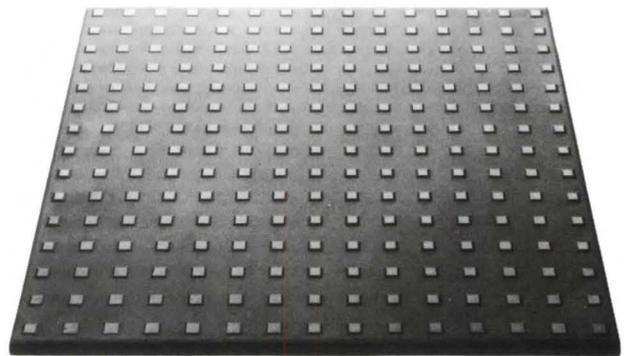
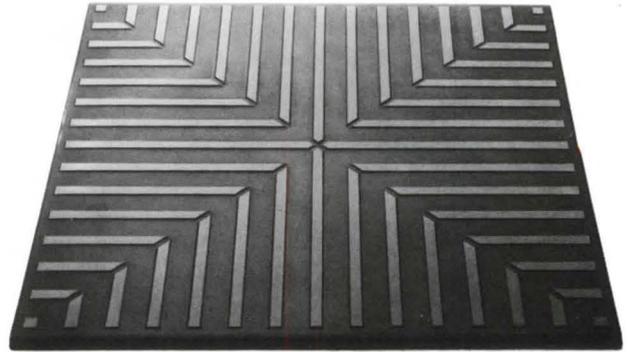
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- 94 *Technics-Related Products*
 - 105 *Thin Granite*
Ceramic Granite
 - 106 *Stone Products and Literature*
 - 107 *New Products and Literature*
-



Granite cut $\frac{3}{8}$ -inch thick.



Manhattan building (middle) faced with thin granite.



Various patterns available in D-Line tiles.

Thin Granite

Marble Technics Ltd. now offers granite in sheets as thin as $\frac{3}{8}$ inch and as large as 2' x 4'. Fabricated in Italy, the thin granite sheets can be cut on site using diamond tip saws and applied to its substrate using adhesives. The ability to use less skilled workers further reduces costs. The Manhattan townhouse (above) designed by Leonard Colchamiro uses $\frac{3}{8}$ -inch polished and $\frac{1}{2}$ -inch flame-cut granite panels applied with a latex-modified thin-set adhesive to a plaster scratch coat. "It's revolutionized granite," says Ted Licht of Marble Technics, "turning it into an off-the-shelf product."

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D-Line is a ceramic tile, manufactured by Castellarano-Fiandre Ceramiche in Italy and marketed in this country by Trans Ceramica Ltd., that is 30 percent harder than granite. Made from granite by-products such as feldspar and quartz, the D-Line tiles are pressed in a 1200-ton press and fired at over 2100 F. Their surface is then polished. At present, the tiles are available only in one-foot-square sizes, in black or gray, and in plain or dot, line, or cross-patterned surfaces, but "more colors and patterns," says H.S. Kwiatkowski of Trans Ceramica, "are coming." **Thomas Fisher**

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Stone Products and Literature

Every September, the village of Sant' Ambrogio di Valpolicella, near Verona, Italy, is the setting for an international show of stone and stone-working equipment. Dubbed MARMOMACC, by a casual combination of the Italian words for "marble" and "machinery," the fair includes hundreds of producers, representing—this year—22 countries. At the most recent MARMOMACC show, about 50,000 architects, designers, and stone industry representatives attended. A sampling of products selected by P/A's Editor is presented here.

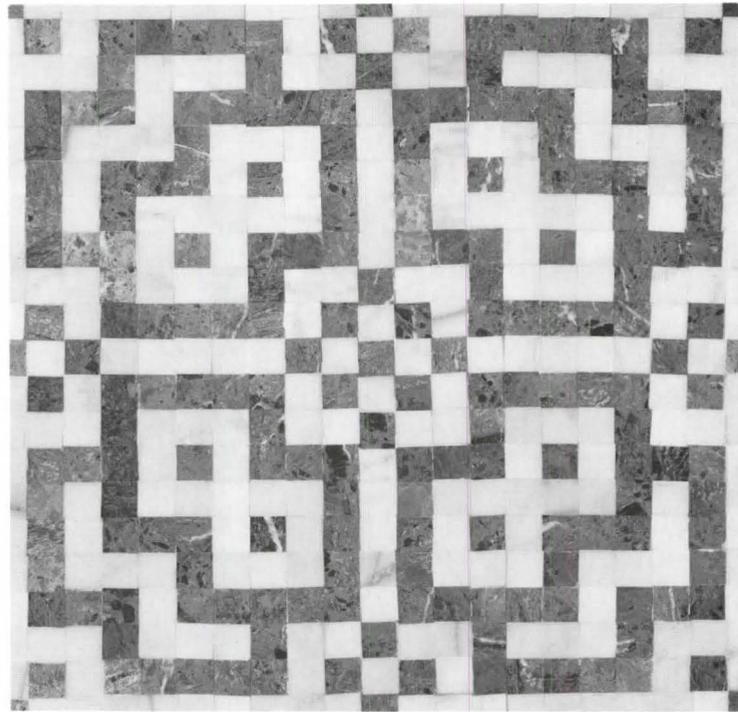
A guide to building stone is available to architects and designers at no charge from the Italian Marble Center. The two volume set contains specification information and a full-color pictorial guide to 150 types of marble, granite, travertine, and other stones. Written requests should be addressed: Italian Marble Center, 499 Park Ave., New York, N.Y. 10022.

Marbles and granites in extensive variety from 12 regions of Italy and as many other countries are offered by this producer. Included are hazel-colored Cremamora marble, flame-treated Baltic Brown granite, and a variety of figured travertines. Antolini Luigi & Co.
Circle 135 on reader service card

Resin-bonded paving and cladding units, consisting of 96 percent marble, are manufactured, using a proprietary process, by this producer. Said to be superior to natural marble in impact resistance, absorption rate, and other qualities, the material comes in an extensive range of colors and patterns, including new offerings with the look of fine-textured granite. Tiles and custom sizes are available. Installations include office buildings, hotels, and stores in the U.S. Rover S.p.A.
Circle 136 on reader service card

North American installations of granite and marble are illustrated in this producer's brochure, which shows a variety of colors and finishes. Cremar S.p.A.
Circle 235 on reader service card

Greek marbles offered include subtly tinted Thasses, Naxos, and Pentaliko varieties, plus rich red, green, brown, and black types. Iktinos-Hellas, S.A.
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Mar-mo inlaid marble

Inlaid marble flooring and wall-cladding units 50 cm. square combine stone of various colors in geometric patterns with such names as Lahore, Baghdad, and Samarkand. Company also produces units of other sizes, including 6 x 12 and 12 x 12 marble tiles. Mar-mo S.p.A.
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Slate and Quartzite pavers are offered in a variety of subtle colors, cut in various sizes, and random-looking patterns of rectangular slabs. N.V. Stone, S.A.
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Manufactured units composed of crushed marble, with 6-7 percent polyester resin, are said to be superior to natural marble in resistance to cracking, staining, and abrasion. They can be installed mechanically for curtain walls and with adhesives on interiors, as well as traditionally. The range of units includes polished or hammered finishes, vivid and neutral colors—even some with brass flecks. Stone Italiana.
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Portuguese marbles include a variety of roses and cream colors, with subtle shadings and veining. Plácido José Simões.
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Marbles in the Humana Building lobby (P/A, July '85, p. 21) were shown in installation photos by this exhibitor. Exceptional varieties include Brescia Aurora marble, Marron Guaiba and Nero Africa Assoluta granites. Company claims exceptional



Handcrafted marble is produced by a 70-year-old shop whose artisans carve figures directly from sketches. Applications have included restoration architecture and Modern ornamentation in works of Carlo Scarpa. Soc. Coop. Unione Marmisti.
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Serpentines in a characteristic range of greens and grays, in polished, rubbed, or shot-textured finishes, offer understated surfaces of unusual character. Nuova Serpentino d'Italia.
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German Jura marble flooring, wall-cladding, and tiles are offered in several subtly figured varieties of gray, beige, and yellow coloring, in rough or polished finishes. This stone has been used throughout Europe for residential, institutional, and commercial buildings. Stiegler Solnhofen.
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Marble tiles in standard 6" x 12" and 12" x 12", plus other sizes to order, are available in various beige and brown travertines, white, gold, and black marbles from this Italian producer. Luigi Maccari & Co.
Circle 149 on reader service card

Granites from many countries are featured in this company's catalog. Included are usual offerings from Russia, India, South Africa, and Brazil, along with Italian, Scandinavian, and Iberian varieties. Henraux S.p.A.
Circle 236 on reader service card

Roman travertines in a classic range of colors and figures are available in rough slabs, blocks, and shaped units. Bruno Poggi & Figli.
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skill with specially shaped units. Industria dei Marmi Vicentini.
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Onyx, marble, and granite are offered internationally by a company with plant and headquarters in Italy, plus offices in Switzerland and Argentina. Gold-veined green onyx from Argentina is an exceptional offering. COMIMAR.
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International collection of stone includes granites from Italy, Spain, Finland, India, and Brazil, marbles from Italy and Bulgaria in colors rich or delicate. S.I.E.M.
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Exclusively produced Perlato Sicilia Classico and Botticino Royal are marbles among the many varieties of stone that this producer quarries and processes. Expert technical assistance, cost estimates, and samples are offered. Jovino Marmi S.p.A.
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New Products and Literature

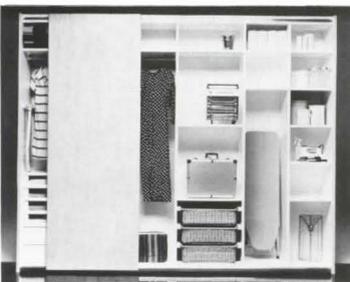
specification guide. Measuring 13½" x 14¾", the kits fit easily into a bookcase or product library. Series offered are Canyonstone, Desertstone, Orizonti, Ecologica, Castelli, and Comuni-Citta-Metropoli. Marazzi USA.

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Stipo sliding-door wardrobes, manufactured by Bellato of Italy, have a white lacquer interior finish and a choice of exterior finishes including Italian walnut, natural ash, white, gray, and black glossy lacquer. Door finishes also include clear or bronze mirror or fabric coverings. There are three- and four-door wardrobes available in two heights and three widths. Accessories are drawers, shelves, and baskets. Ambienti.

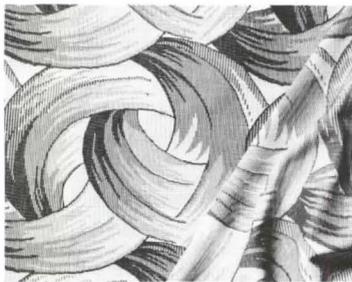
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Strings wallcovering of Koroseal® vinyl is available in 40 colors. It has a Class A UL fire rating and can be used in high traffic areas. It adds texture, and the varied string widths help conceal seams. B.F. Goodrich, Wallcovering Products.

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'Living Documents' planning guide illustrates the use of overlay drafting techniques for producing living documents in the design of new buildings or additions. It covers specification systems, creating new designs, creating a data base, applying the system, and documenting changes on existing structures. E.I. du Pont de Nemours & Co., Photosystems and Electronic Products Dept.

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Voisin Texture upholstery fabric, from a design by Le Corbusier for the 1930s Voisin automobile, is all cotton, 55 inches wide. The Modernist spiral pattern is available in beige and ecru or cream with red, blue, or black. Brunschwig & Fils.

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Conservare® stone strengtheners are clear liquids that replace the natural mineral binding materials in masonry with silicon dioxide. They penetrate the substrate to improve surface and subsurface integrity, yet do not interfere with the masonry's natural vapor permeability. Pro-SoCo, Inc.

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'The Designer's Guide to Italian Ceramic Tiles & Their Installation,' originally published in 1983, has been revised and reprinted. The 64-page, full-color book covers the varieties of tiles, their uses, and installation information. It has color illustrations of tiles in room settings, a list of standards and test methods, and a glossary of terms. The Italian Tile Center.

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The 'Rockwell II' chair, designed as a sidechair by John Pyle and originally produced in the 1950s for Herman Miller, is being reissued. Later modifications included the addition of a molded plywood arm developed by Paul Goldman and a one-piece molded plywood seat and back. Made famous in a Norman Rockwell painting for the *Saturday Evening Post*, the chair as now offered has a roomier seat and back, with upholstery, wider

arms, and wider legs for greater stability. Plycraft, Inc.

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Window and patio door catalog shows Hurd's complete line of aluminum-clad windows and patio doors. New items are a clad horizontal slider and a clad swinging patio door, both available with Heat Mirror™ transparent insulation. The 20-page catalog has full product descriptions, energy ratings, cross-sectional diagrams, and size listings. Hurd Millwork.

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Model 100 hand-held computer uses ultrasonic ranging technology to measure distances from 1 to 50 feet. Measurements are clearly shown in feet and inches, yards, or meters. Temperature-sensing circuitry compensates for variations in sonic speed. The four-function calculator has ten storage registers for storing and recalling distance measurements or constants. PRG.

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SkyTrac™ residential skylight has a motorized translucent acrylic shade that operates in response to a built-in sun sensor. In summer, sunlight automatically closes the shade; in winter, the shade is closed until the sunlight appears. Skyview Control Systems, Inc.

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Custom profile extrusions catalog illustrates metal and wood wiring grommets, paper slots, furniture pedestals, table legs and bases, desk hardware, and file lock bars. The company also offers laminated work surfaces in custom sizes and shapes, chalk boards, and whiteboards. Doug Mockett & Co.

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Trilogy conference tables, designed by Norman Cherner, are offered in 14 natural finishes oak, walnut, mahogany, cherry or maple and 15 colors. There are three choices of base type in polished stainless steel or bronze, and round, rectangular, and racetrack tops. Modern Mode, Inc.

Circle 132 on reader service card

[continued on page 108]



Rolladome is a motor-driven operable dome skylight of galvanized steel with bronze acrylic glazing. Opening the skylight vents heat buildup in summer, and single glazing allows maximum solar gain in winter. Rollamatic Roofs, Inc.

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Americana Series elevators are shown in color in a 28-page brochure, which discusses service capabilities, control systems, cab and hoistway entrances, cab interiors, and fixtures. Engineering data are included for both traction and hydraulic elevators, with plans and elevations for each. U.S. Elevator.

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The Galaxy Table, designed by Michael Wolk, has a painted metal and polished steel base and a ¾-inch beveled glass top. The base is available in a choice of colors or all polished steel. Amcoa Metals.

Circle 121 on reader service card

Systems 3 vinyl wallcoverings consist of 38 patterns in a variety of matching and coordinating colors and textures. They are durable and easily maintained, meet federal specifications, and have a Class A fire rating. Sinclair Wallcovering & Fabric.

Circle 122 on reader service card

Specifier's tile sample kits, revised for six series, are available to architects, interior designers, and facility planners. Intended for product libraries, each kit contains color chips, a color number chart, technical product information, and a short form

Airthrust sports flooring has a pneumatic cushion that absorbs impact and provides sound isolation. The cushioned subflooring has compressed air cells that create buoyancy and resilience to absorb jolts. Flooring can be parquet or maple, oak, or pine strips. It is suitable for libraries, gymnasiums, running tracks, squash courts, and music rooms. Airthrust International, Inc.

Circle 133 on reader service card

Safety devices for mechanically assisted high-density storage systems eliminate the risk of injury to someone standing in the aisle. The two options are a safety floor and a safety sweep. The floor features an elevated, passively sensed floor package and mechanical safety brake with a solenoid lock that operates on as little as 25 pounds of pressure. The safety sweep also engages the brake when it encounters an obstacle in the aisle. Spacesaver Corporation.

Circle 134 on reader service card

Durasan technical brochure discusses commercial fixed wall and movable wall installations of this vinyl-surfaced gypsum wall panel. It provides code approv-

als, application instructions, advantages such as fire, abrasion, and fade resistance, and explains limitations. A chart of 39 colors and 9 textures is included. Gold Bond Building Products.

Circle 233 on reader service card

Custom millwork of hardwood, featured in a four-color brochure, includes fireplace surrounds, wainscoting, floor-to-ceiling coverings, coffered ceilings, moldings, and furniture such as desks and tables. The company also has a complete line of prehung oak or other hardwood doors, exterior doors and sidelights with leaded, beveled, and etched glass, and French doors. Architectural Walls, Ltd.

Circle 234 on reader service card

Building Materials

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

Project: Conrad Sulzer Regional Library, Chicago (p. 51).
Architects: Joseph Casserly, Hammond Beeby and Babka, Inc.,

Chicago. Face brick: Endicott. Granite: Cold Springs. Steel windows: Hopes. Aluminum skylights: Lin-El. Hollow metal doors: Superior Fireproof Door Co. Rolling steel overhead door: Overhead Door Co. Carpets: J&J Industries. Terrazzo: John Caretti & Co. Standing seam roofing: Zip-Rib. Waterproofing: Carlisle. Sealant: Tremco. Rigid insulation: W.R. Grace. Roof drains: J.R. Smith. Urethane enamel paint: Degracon 'Syn/Gard.' Latex paint: Pratt & Lambert. Full mortise hinges: McKinney. Locksets: Russwin. Door closers: Norton. Panic exit hardware: Von Duprin. Security system: Silent Knight. Fire equipment: Simplex. Book conveyor: Baldwin. Elevator and dumbwaiter: Montgomery Elevator. Coat storage: Republic Steel. Exterior lighting: J.H. Spaulding. Interior indirect surface lighting: Lam, Visa. Tubs, lavs, w.c.'s: Kohler. Plumbing fittings: Chicago Faucets. Flush valves: Sloan. Metal toilet stalls: Accurate Partitions. Washroom accessories: Bobrick. Water fountain: Haws. Heating system: A.G.A. Cooling tower: B.A.C. Chillers and electric air handlers: McQuay. Office furniture and

files: G.F. Furniture Systems. Steel library shelving: Wilson Shelving. Wood Windsor chairs and tables, custom stained: Cornucopia. Metal blinds: Levoior. Signs: Architectural Signing/Chicago.

State of Illinois Center, Chicago (p. 72). Architects: Murphy/Jahn, Inc., and Lester B. Knight & Associates, Chicago. Hinges: Stanley. Locksets: Sargent. Door closers: Sargent, Rixson, Von Duprin. Computer room: Tate. Security: Autocall. Public seating: Castelli. Lavatories and water closets: American-Standard. Plumbing fittings: Chicago Faucet. Flush valves: Sloan. Toilet stalls: Global. Washroom accessories: Bobrick. Sprinklers: Viking, Reliable.

Wosk Residence, Beverly Hills, Calif. (p. 80). Architect: Frank O. Gehry & Associates, Venice, Calif. Drywall: U.S. Gypsum. Roofing: Flintkote. Intercom/security: Morse. Elevator: Coast Elevator. Exterior lighting: Hubbell; Supreme. Interior lighting: Cole, Prudential; Halo. Plumbing fixtures: Sherle Wagner; Kohler. Bathroom accessories: Paul Associates.

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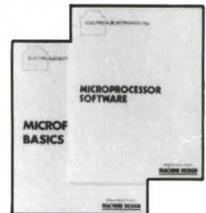
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P/A in January



Jury for the 33rd P/A Awards: Front row l. to r. Thom Mayne, Susana Torre, Richard Rogers; back row l. to r. Janet Carpmann, Harvey Bryan, Chad Floyd, Malcolm Holzman, Tom Aidala.

P/A Awards issue

The eight eminent professionals on this year's P/A Awards jury were more selective, at least statistically, than those of recent years. Only 17 projects were honored with awards and citations—seven in architectural design, six in planning/urban design, and four in research. The qualities that make these few submissions winners, along with the jurors' commentary on them, will yield an insightful view of American architecture on the horizon as we enter 1986.

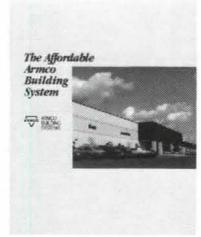
P/A Awards survey

This January, P/A will also include a revealing survey, updating readers on the progress of winning projects from previous years. As a further follow-up, there will be features on several completed winning projects during the year.

P/A in the following months

The February issue will concentrate on completed work, including (as does this issue) a previous P/A Award winner brought to gratifying completion. The early 1986 issues will also demonstrate some revisions that P/A's editors have been developing for the magazine. You will be able to read about some of our new features, and the objectives behind them, in the January Editorial.

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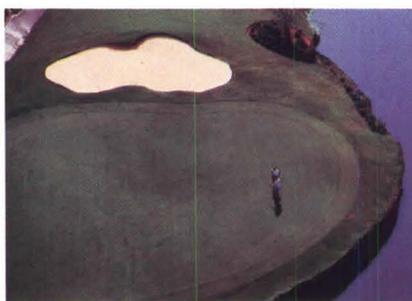
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Progressive Architecture

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Hammond, Beeby & Babka: Conrad Sulzer Regional Library, Chicago (Dec., pp. 51–61).

Brian Healy: Florida House and Nursery, Fort Myers (Jan., pp. 104–105).

Heery & Heery, The Marmon Mok Partnership, W.E. Simpson Company: San Antonio Airport, Texas (June, pp. 98–103).

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Hodgetts & Fung: Cookie Express, Orange County, Calif. (Jan., pp. 124–125).

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Eric R. Kuhne & Associates: The Courtyards, Fort Wayne, Ind. (Jan., pp. 110–111).

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Martin/Soderstrom/Matteson: Pioneer Courthouse Square, Portland, Oreg. (Aug., pp. 93–98).

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The NBBJ Group: Scottsdale Memorial Hospital, Ariz. (March, pp. 82–85).

Jean Nouvel, Gilbert Lezenes: Municipal Theater, Belfort, France (Feb., pp. 94–101).

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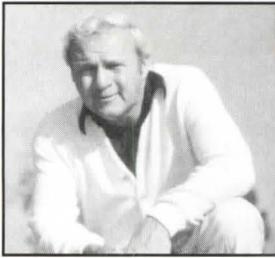
James Stewart Polshek & Partners: Delafield Estate, Riverdale, N.Y. (Jan., pp. 122–123).

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George Schieferdecker: *Duplex Apartment, New York (Sept., pp. 138-140).*

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Robertson: *OSU Center for the Visual Arts, Columbus, Ohio (Jan., pp. 98-100).*

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Eric Lloyd Wright, Martin Eli Weil: *Restoration of Storer House, Los Angeles (Nov., pp. 112-117).*

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The University of Oregon Department of Architecture is seeking applicants for the Distinguished Visiting Critic Program. Candidates experienced in the practice and/or teaching of architectural design are invited to apply for an appointment of one to three quarter terms beginning in the fall of 1986. Responsibilities in each quarter include directing a graduate and/or undergraduate design studio and conducting an independent subject course. Candidates should regard each of these as an opportunity to pursue new areas of professional interest. Completed applications, due January 31, 1985, must include a statement of interest, a current curriculum vitae, a brief portfolio of creative work by the candidate, one letter of reference, and three addi-

tional references to be contacted by the Department. Further inquiries and completed applications should be addressed to: Donald B. Corner, Head, Department of Architecture, University of Oregon, Eugene, Oregon 97403. The UO is an EEO/AA employer.

The University of Oregon Department of Architecture is seeking applicants for three fixed-term tenure track positions to begin fall term, 1986. Advanced Structures: Course-work in advanced structures and construction with regular involvement in design studios as a consultant, co-teacher, or principal critic. Assistant or Associate Professor levels. Design and Technology: Architectural design studio and subject courses in structures, construction, environmental control, preservation technology, or professional practice. Assistant Professor level. Design and Theory: Architectural Design studio and subject courses which develop theoretical understanding of the physical, social, cultural, or historic contexts of architecture. These understandings must inform the processes of building design and/or preservation. Assistant or Associate Professor level. For all positions candidates will be expected to have advanced degrees in the appropriate fields as well as experience in teaching, research or professional practice. Completed applications, due January 31, 1986, must include a current curriculum vitae, a portfolio of work (including examples of student work done under the direction of the candidate), a statement of interest which relates the research and teaching objectives of the candidate to a comprehensive view of architectural design, one letter of reference and three additional references to be contacted by the search committee. Further inquiries and completed applications should be addressed to: Chair, Faculty Search Committee, Department of Architecture, University of Oregon, Eugene, OR 97403. The University of Oregon is an EEO/AA employer.

The University of Virginia, School of Architecture, is seeking outstanding candidates for full-time tenure track teaching positions in architecture. Qualifications shall include prior teaching experience with evidence of a developed didactic orientation, advanced professional experience, and prior success in research and/or scholarship. The following positions are available: Graduate Program Director of the Division of Architecture at the rank of Associate or Professor of Architecture. Can be a tenured appointment. Salary commensurate with position. Should have proven design skills and capacity to lead graduate studies in urbanism and/or architectural theory as well as administer the graduate program in architecture. Assistant or Associate Professor of Architecture in tenure track position to teach and conduct research in the area of architectural technologies. The ability to teach in the design studio is highly desirable. Assistant Professor

of Architecture in tenure track position to teach architectural design with expertise in theory, basic design, graphics, or technology. Please submit resumes and letter of intent to Bruce Abbey, Chairman, Division of Architecture, University of Virginia, School of Architecture, Campbell Hall, Charlottesville, Virginia 22903. The University of Virginia is an Equal Opportunity Employer.

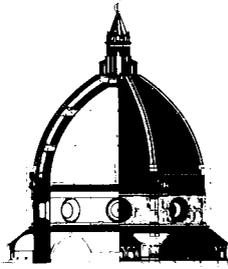
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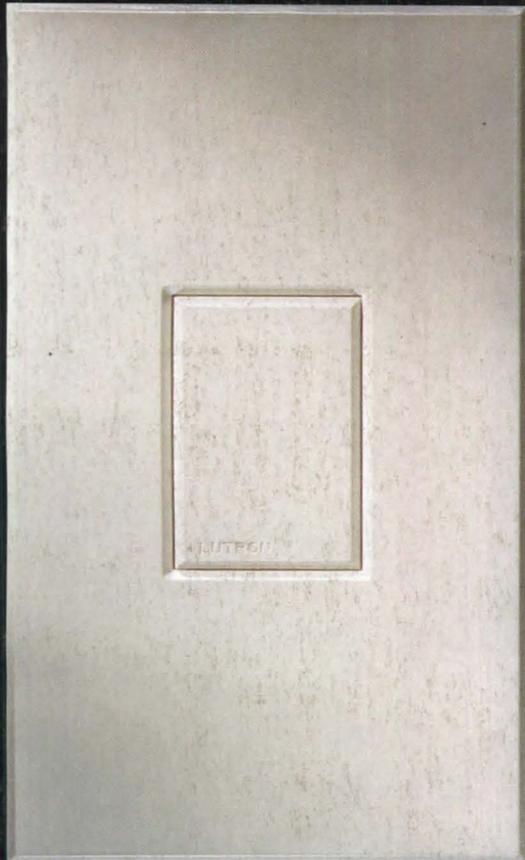
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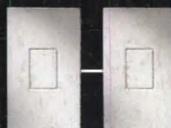
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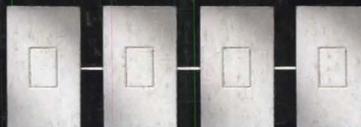
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