

Progressive Architecture

December 1983



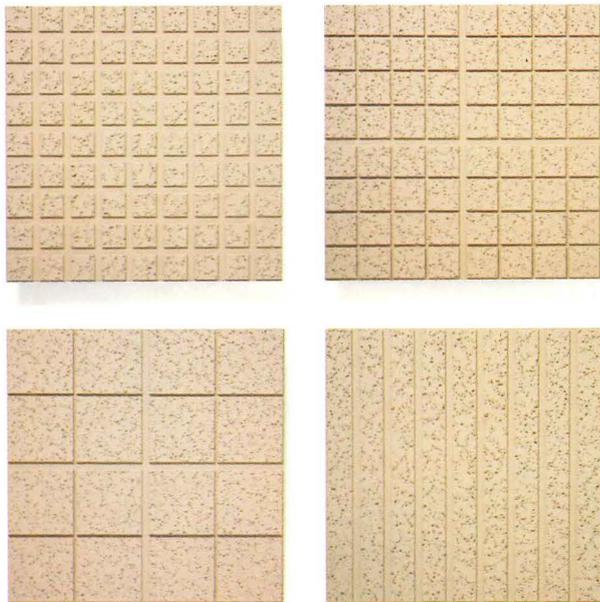
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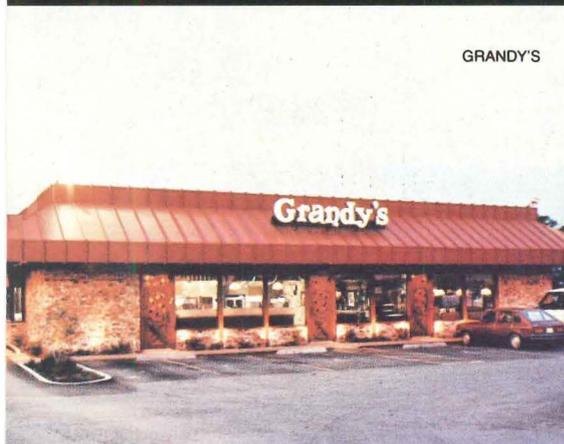
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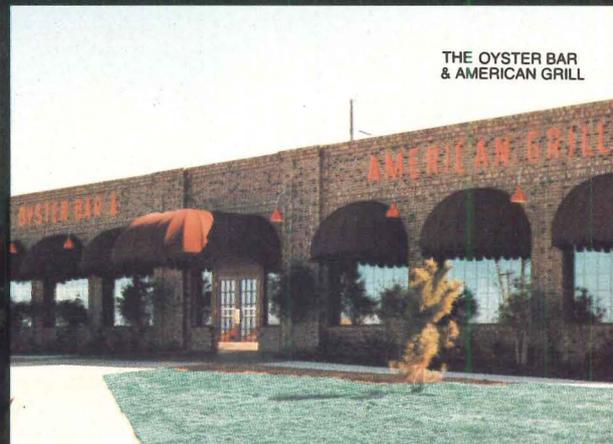
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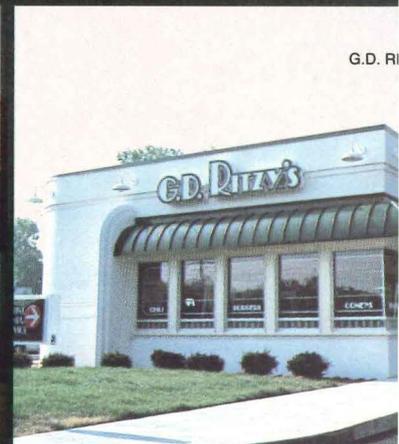
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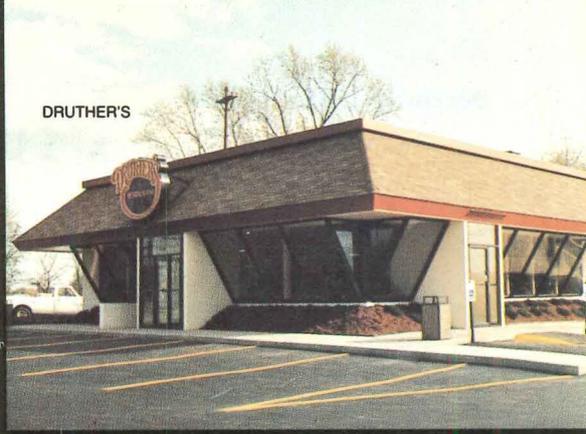
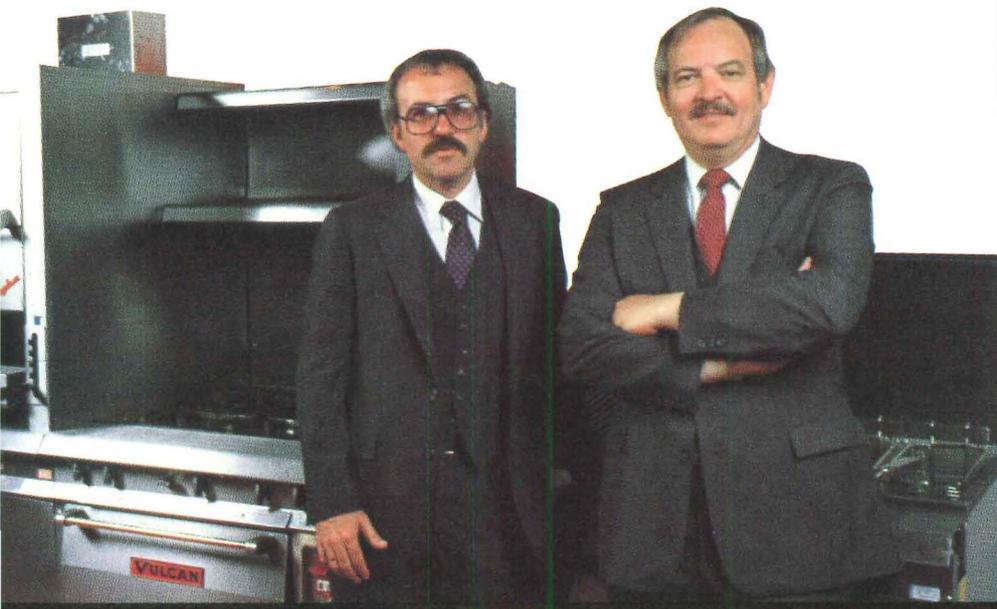
Obviously, Hamill & McKinney know the value of natural gas as an efficient fuel for today's energy-conscious building designs. "Anywhere gas is available, it's our first choice for all energy needs," says Earl McKinney, engineer.

He and his partner, Jim Hamill, started Hamill & McKinney Architects and Engineers, Inc., in 1978. Success came quickly, and today they have seven offices: Lexington, Ky., Dallas, Orlando, Denver, Los Angeles, San Francisco and Atlanta.

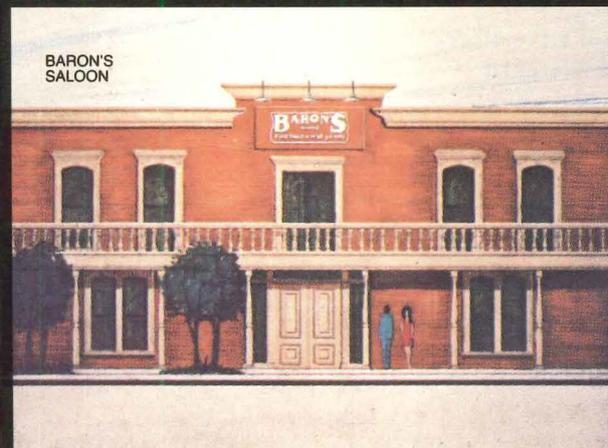
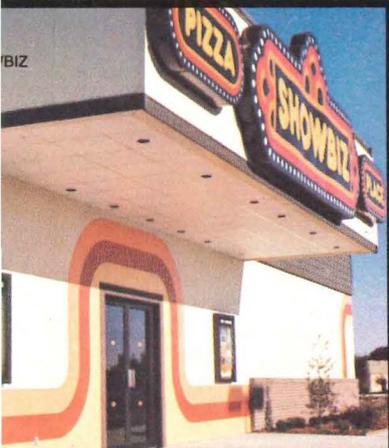
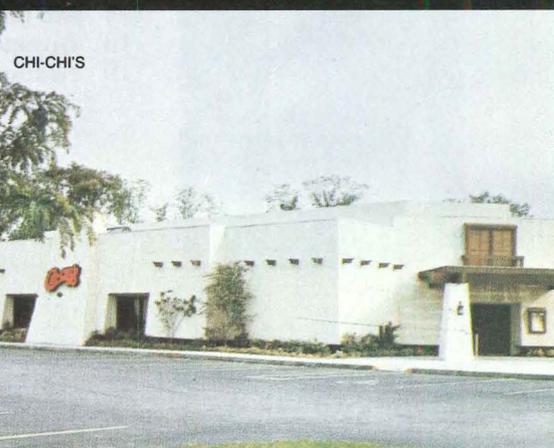
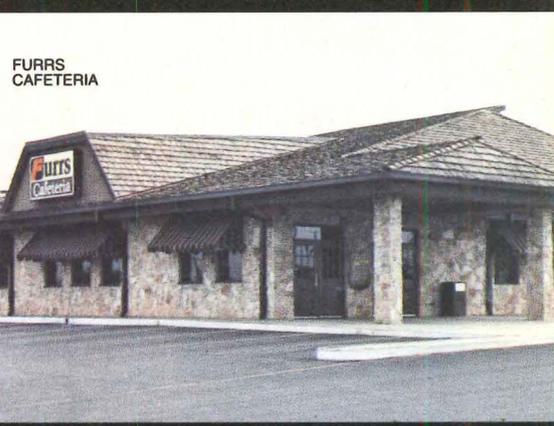
They are professionally registered in architecture and engineering in 39 states. Fifty percent of their work is restaurant renovation, most of which has to be completed in 30 days, but their expertise also extends to multi-family, hotel/motel, office buildings, shopping centers, adaptive use and commercial/retail/industrial design.

Their success, they feel, comes from understanding their clients' needs. "That means how to get the most from a specified budget, and how to get the job done fast to make a property start paying for itself," says Jim Hamill, architect.

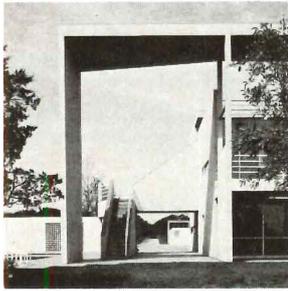
In looking at operating costs, they feel the energy choice is one of the most important considerations. That's why they believe a restaurant should choose gas as its primary fuel. They find gas equipment more reliable and easier to maintain. For cooking, gas has no equal, providing high heat, fast response and total control. And it can't be beat for efficient space conditioning and water heating, especially with the new generation energy-saving gas equipment now available.



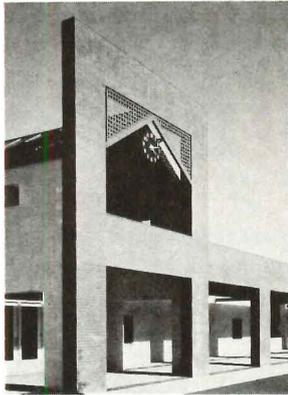
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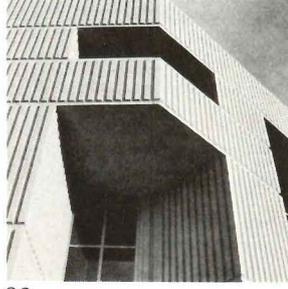
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Cover: *Sunset at the de Menil house (p. 47) in East Hampton, N.Y., by Gwathmey Siegel & Associates. Photo: Roberto Schezen.*

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Architectural design

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A house in East Hampton, N.Y., shows complex developments in the work of architects Gwathmey Siegel & Associates.

58 Child's play

Tai Soo Kim, Hartford Design Group, uses abstract forms of traditional elements in the Middlebury Elementary School.

64 Precursor: California Classicist

Arthur Brown, Jr., a master of the Classical idiom, is only now gaining the recognition he deserves. *Richard Guy Wilson*

72 Measured in mils

By careful use of colors, Charles Herbert & Associates revitalizes the interior of Tifereth Israel Synagogue.

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Curtain wall

Thermalized windows

Sliding patio doors

Balcony railings

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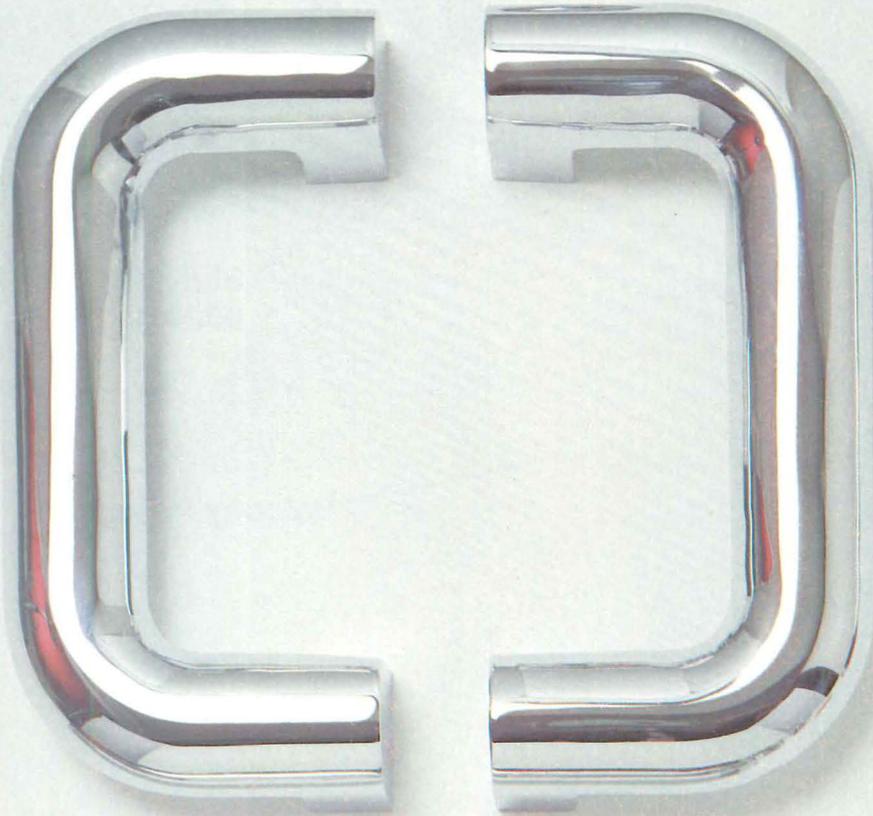
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The right client

The program may be sound and the budget ample, but unless the client really wants good architecture, the best professional talents are unlikely to deliver it.

To get good architecture, you need a good architectural firm, of course. (A "good architect" is not enough, unless that architect manages the rare feat of *being* a good firm.)

Next, and almost as absolutely, you need the right client. For one thing, only the right client is going to select the good firm for the appropriate task, and with valid expectations. Even if the firm is capable of greatness, consider some of the ways the client can go wrong:

The firm's good reputation may be all the client wants, attached to a building that represents the lay wisdom of an individual or a committee.

The firm's hopeless task may be to reconcile two or more irreconcilable intentions, held by a single individual or by factions within a client organization.

The architectural commission may be expected to accomplish impossible aims—shoring up a politician's image, making a company popular with its employees or customers, patching up a failing marriage.

If the client is any kind of organization, a change in key personnel may leave the job at the mercy of unsympathetic forces; clumsy eleventh-hour changes may result, and the architects' reputations may be threatened.

If the client is a public one, a whole additional set of handicaps may be imposed, having to do with conducting business in the public spotlight:

Projects may be budgeted low, initially, to encourage early support, then grow through program increments, upgrading of quality, etc. These additions, plus any inflation of costs during the extra time required for these adjustments, usually end up being called "cost overruns" or causing unwise deletions.

The firm's design may have to undergo intensive scrutiny by public agencies and commissions (sometimes comprising disgruntled architects) to eliminate anything for which officials are afraid to take the rap; often that means any deviation from the familiar.

Construction contracts may have to be awarded to the lowest bidders, with no effective recourse where the contractor is known to be unreliable, financially shaky, or notorious for bidding low, then concocting "extras" in an effort to turn a profit. Inordinate delays, poor workmanship, and the disruption of contractor bankruptcy are all too common in these instances.

Field observation of construction may be reserved for public servants, to the exclusion of the designing firm.

Most readers will be able to list other things that can go wrong at the client end. But what makes the right client? Beyond avoiding such pitfalls, it takes an enthusiasm for fine design that is congruent with the architectural firm's

strengths. Consider some of the work shown in this issue:

When François de Menil commissioned Gwathmey Siegel to design his house in the Hamptons (p. 47), he undoubtedly knew the kind of houses the firm had produced, and knew that what he wanted: intricate, fluid, Modern spaces, with muted surfaces—no six-over-six windows, no keystones, no high tech flourishes, no exotic geometry. For him, the architects went beyond the accomplishments of earlier houses—to extend the design out into the site, to assemble a collection of period furniture. There is nothing humble about the result; it celebrates the strong will of both client and architects.

Decades ago, when San Francisco commissioned Bakewell & Brown to design its City Hall (p. 66), the city followed some of the procedures most likely to yield a fine result: there was a master plan, a grand but attainable one, drawn up by another fine architectural team; there was a design competition, with a qualified jury and a public report, under circumstances that induced the best firms to enter. And apparently the selected firm was allowed to spend what was needed to build a civic monument; there may well have been disputes in that process, but the final building was surely not compromised in any significant way.

Risk-taking is not necessarily a salient attribute of the good client; often it is enough to elicit a sound architectural solution within well-established parameters. Risk-taking, however, distinguishes the *patrons* of architecture, such as the Cummins Foundation, the New York State Urban Development Corporation (for most of its fitful history), or some of our major universities. Clients such as these tend to get innovative architecture that may be exceptionally good or—on occasion—woefully unsuccessful.

An awesomely wealthy client, the J. Paul Getty Trust, has recently announced its intention to build a \$100 million museum/study complex in Los Angeles (P/A, Nov. 1983, p. 49); an architectural advisory committee chaired by Bill N. Lacy, FAIA, President of the Cooper Union in New York, is reviewing qualifications of firms to arrive at a short list for the client early next year. The Getty Trust is certainly the client with the resources—and the mandate—for superior architecture. They have made a promising start. We'll be eager to see whether they turn out to be the right client for whatever architect.

John Morris Difer



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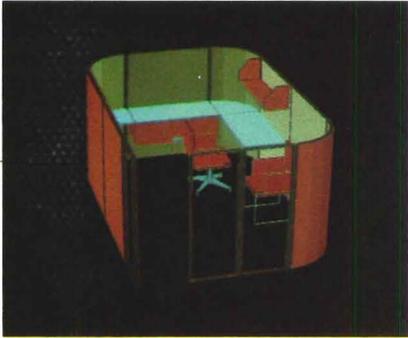
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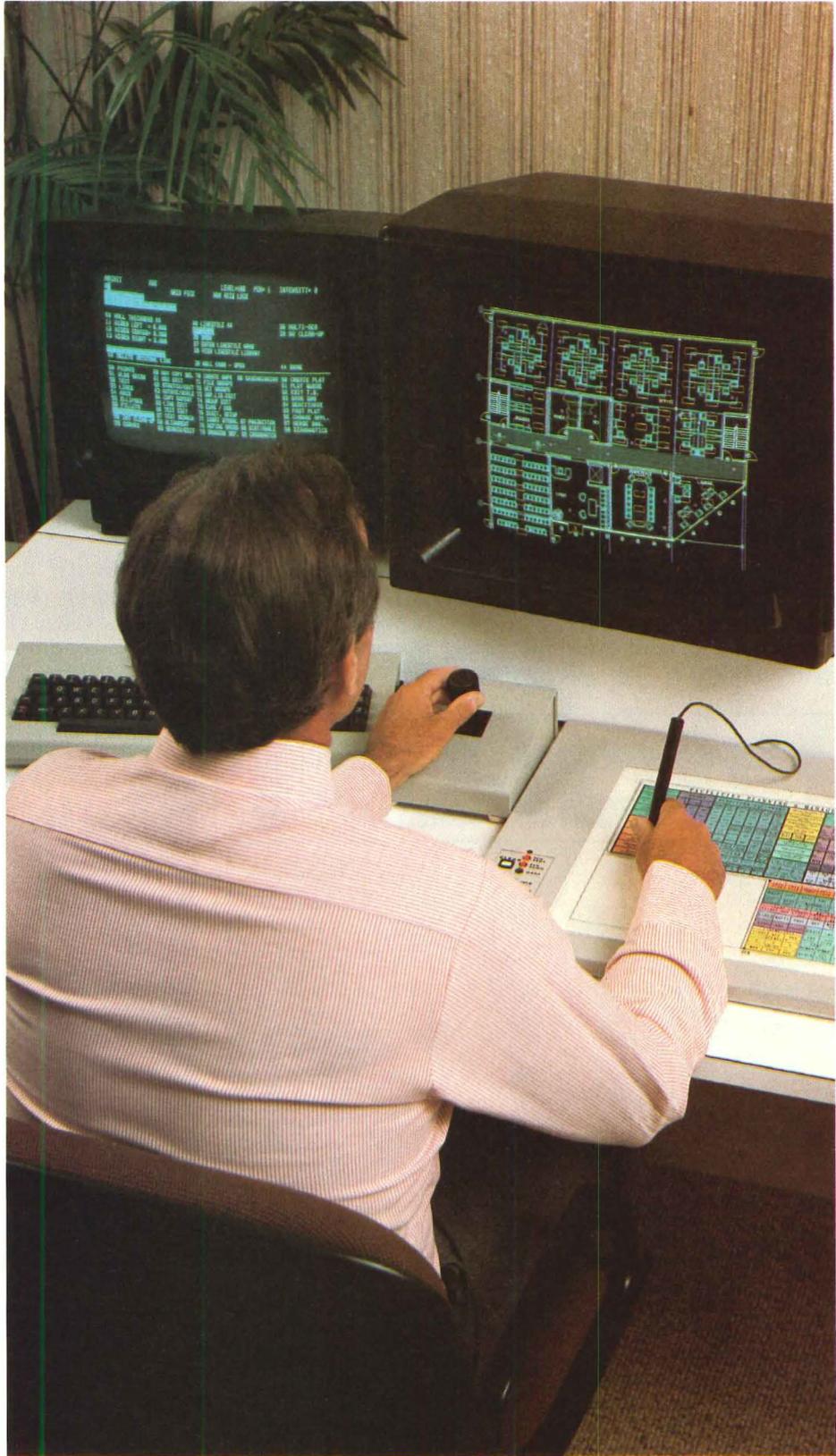
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health care consumer (you and me) spends the greatest portion of their sick time in the preponderance of low tech areas of a hospital. While growing, the average health care bill still goes to low tech facility areas like physician offices, H.M.O.'s, patient rooms, laboratories, outpatient departments, etc.

Fortunately, few of us will experience first hand neutron therapy or linear accelerators, but most of us mortals will use an emergency room, an obstetrical suite or a nursing unit—there is a lot of thoughtful design including new building forms, planning concepts and interiors solutions that are worth regular coverage in P/A—there are even good “Post Modernist” hospital solutions to satisfy that segment of your readership.

Norman Rosenfeld
Norman Rosenfeld, A.I.A. Architects
New York, N.Y.

Photo credits

In the Technics article “The Medical Machine (P/A, Oct. 1983), the photograph on p. 108 is the work of Paul Ferrino.

The photograph of 333 Wacker Drive (Oct., p. 81) should be credited to Gregory Murphey.

Author credit correction

Aaron Betsky is the editor of *CRIT*. (P/A News Report, Sept., p. 48). Carol J. Burns and Robert Taylor are coeditors of *Perspecta 21*.

Health facilities: more thought

Cheers to P/A and Tom Fisher for your October Technics column. Quite aside from the pleasure of seeing one of our high tech hospital projects in the article, P/A's return to covering the world of design for health care is long overdue and most welcome. Unfortunately, too few architectural periodicals choose to cover this important and high dollar-volume building specialty. Mr. Fisher did a yeoman piece of research and reporting in trying to demystify and communicate the planning, architectural and engineering issues that need to be addressed in providing a humane home for new health care technology.

While all this new hardware is very costly and very sexy—reported on almost daily in the news and financial press—the reality is that the average

Credit correction

For the Tabor Center in Denver (P/A Oct. 1983, p. 86), Kohn Pedersen Fox Associates were architects for the office towers. Architects for the hotel and retail areas were the Urban Design Group Denver. The master plan for the complex represents the efforts of both firms

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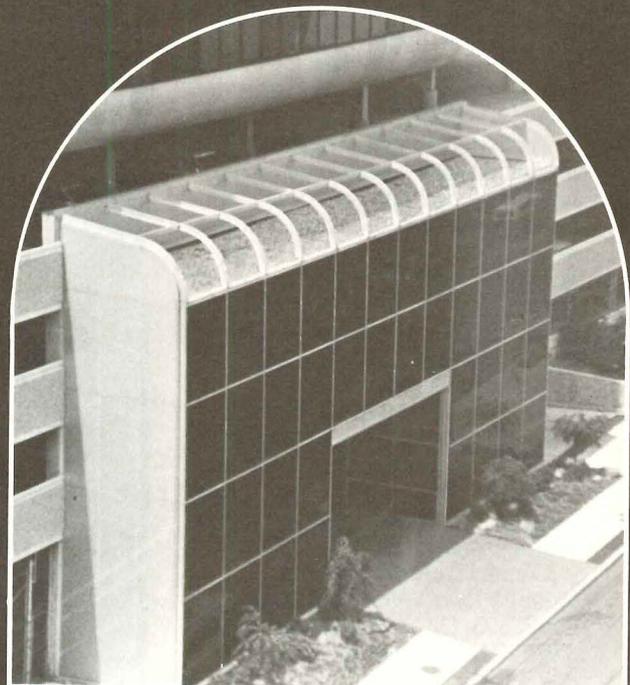
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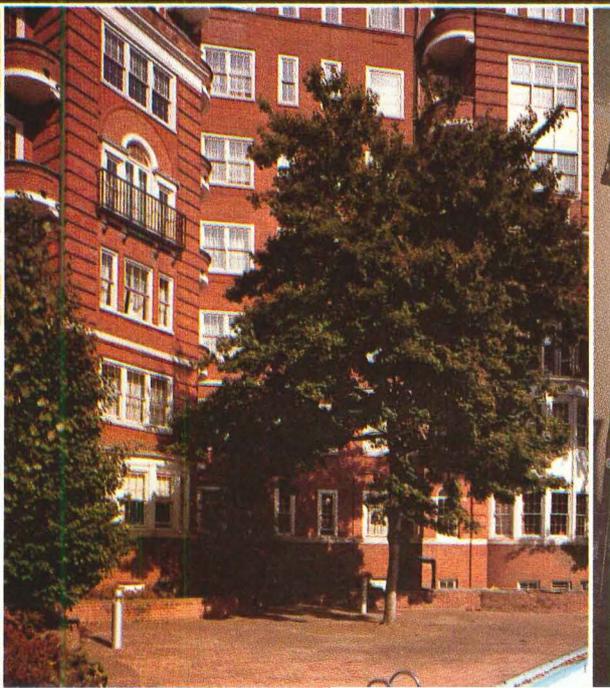
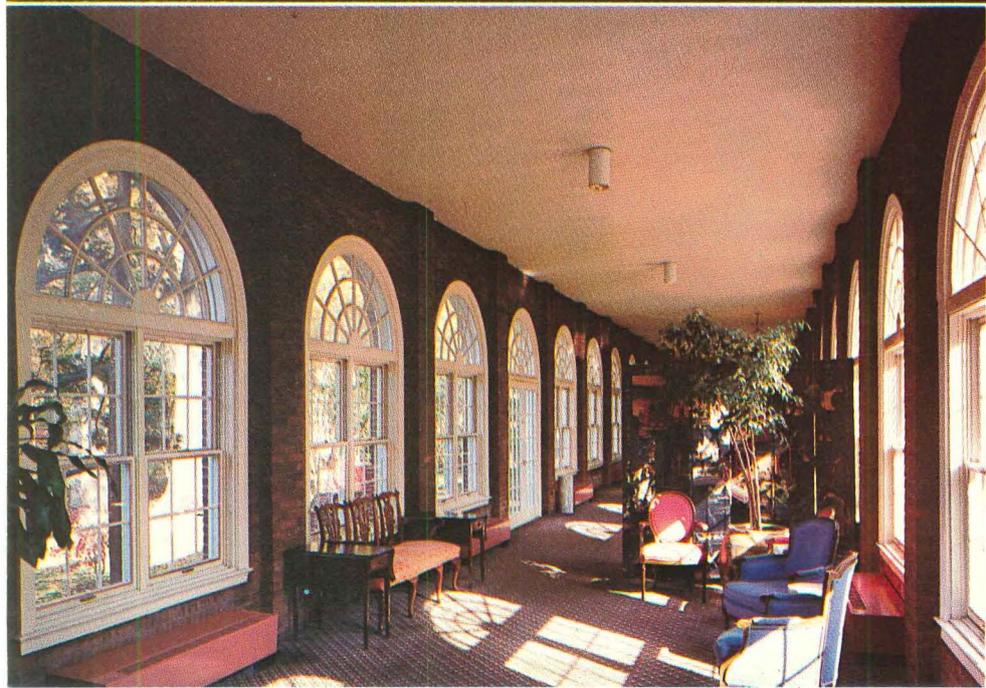
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The de Menil Tables
Design: Gwathmey Siegel, 1983

The tables, like the house, evidence Gwathmey Siegel's new move towards rational decoration. The surface pattern is not arbitrary embellishment, but a colorful expression of solid and veneered wood components.

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In a city filled with famous people, few buildings can claim to have housed more notables than the Sheraton Wardman Tower. Located high above Washington, D.C., the eight-story building designed in 1928 in the English Colonial Revival style by architect Mihran Misrobian features four wings off a central octagonal service core. Over 300 rooms are home to the District's famous and nearly famous.

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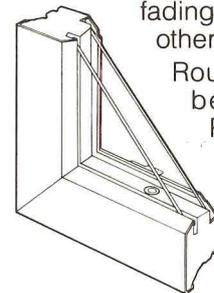
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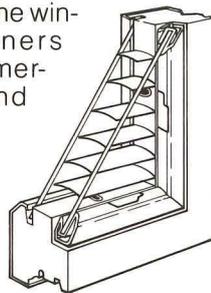
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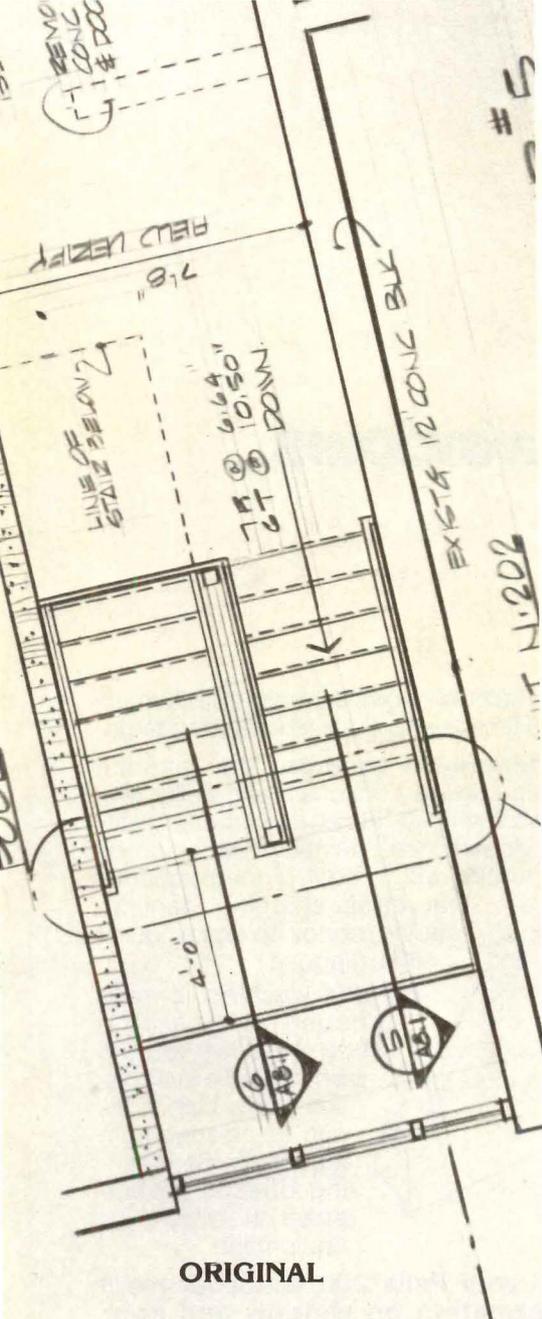
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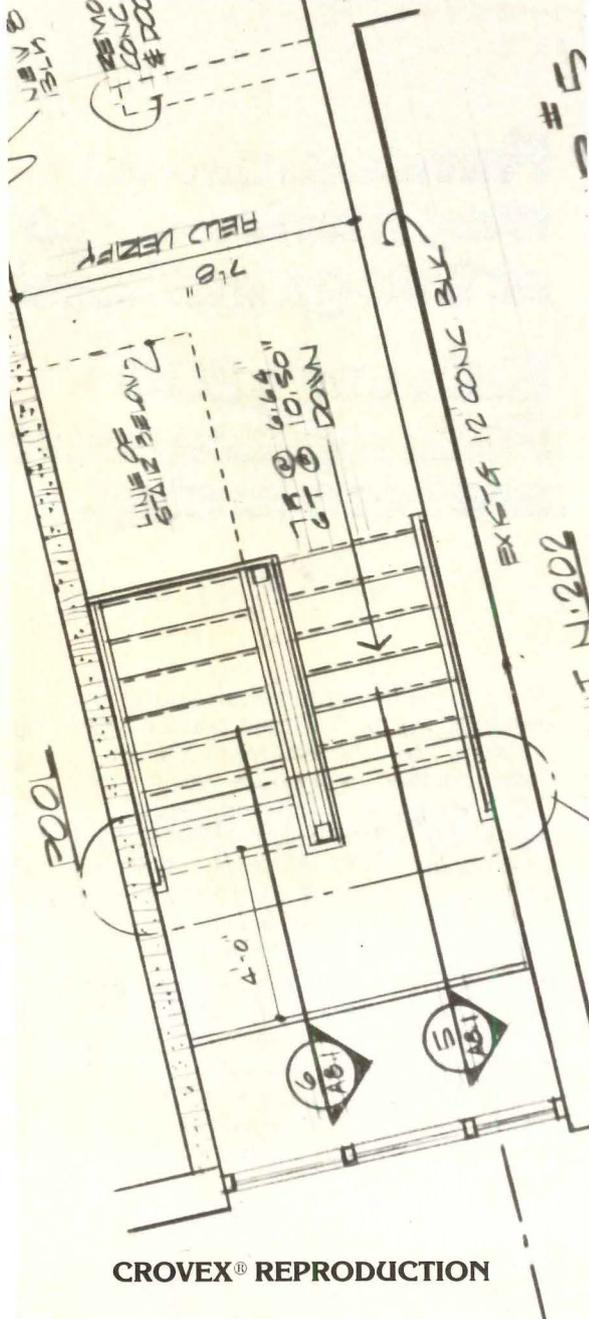
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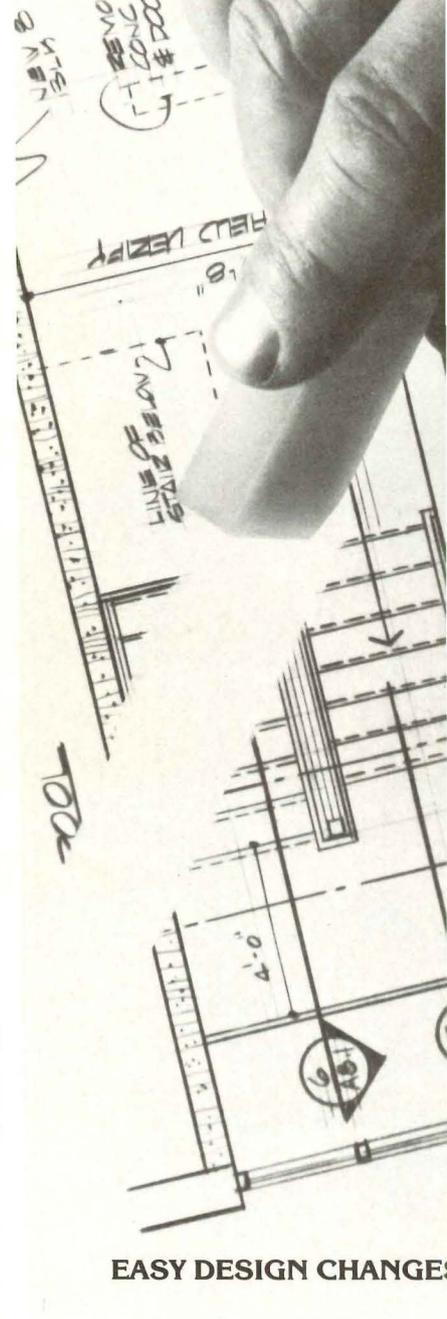




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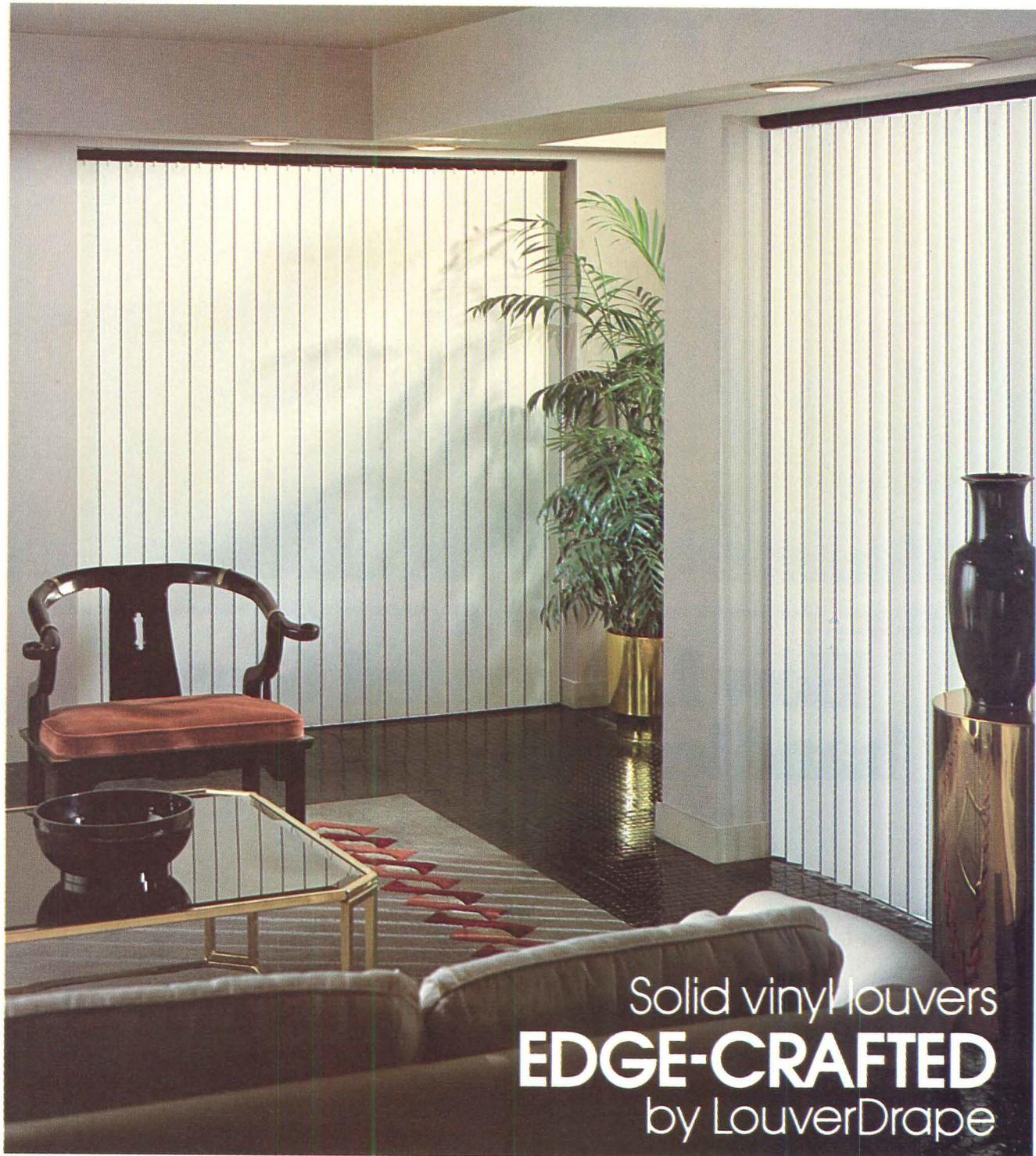
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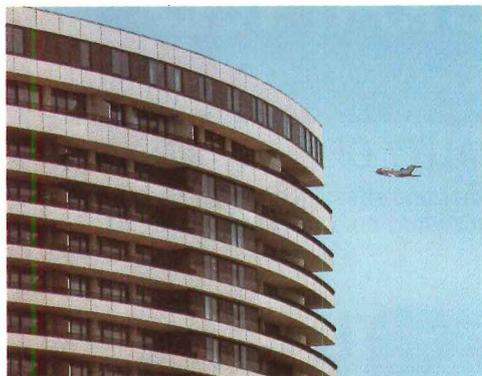
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Washington D.C.'s Crystal City residential and commercial complex was designed by Weihe, Black, Jeffries, Strassman & Dove of Washington D.C., and is managed by Charles E. Smith Building Corporation

How Laminated Glass handles noisy neighbors at Crystal City.

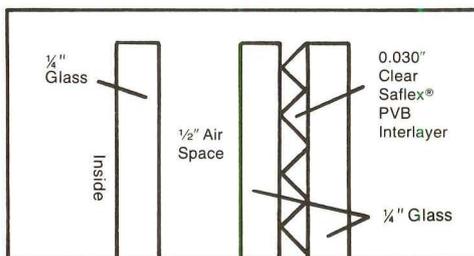
To keep noisy neighbors like cars, trains—and 150 jet takeoffs from nearby Washington D.C. National Airport—from disturbing Crystal City tenants, laminated glass with a Saflex® polyvinyl butyral



interlayer by Monsanto was the ideal, cost-efficient solution. The Saflex interlayer is only 0.030-inch thick—but it is the key sound-reducing component, thanks

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Tests identified peak dBA levels of 76-79 at Crystal City. Design criteria called for an STC performance of 37-40. The final configuration for 55,000 sq. ft. of windows is detailed in the illustration:



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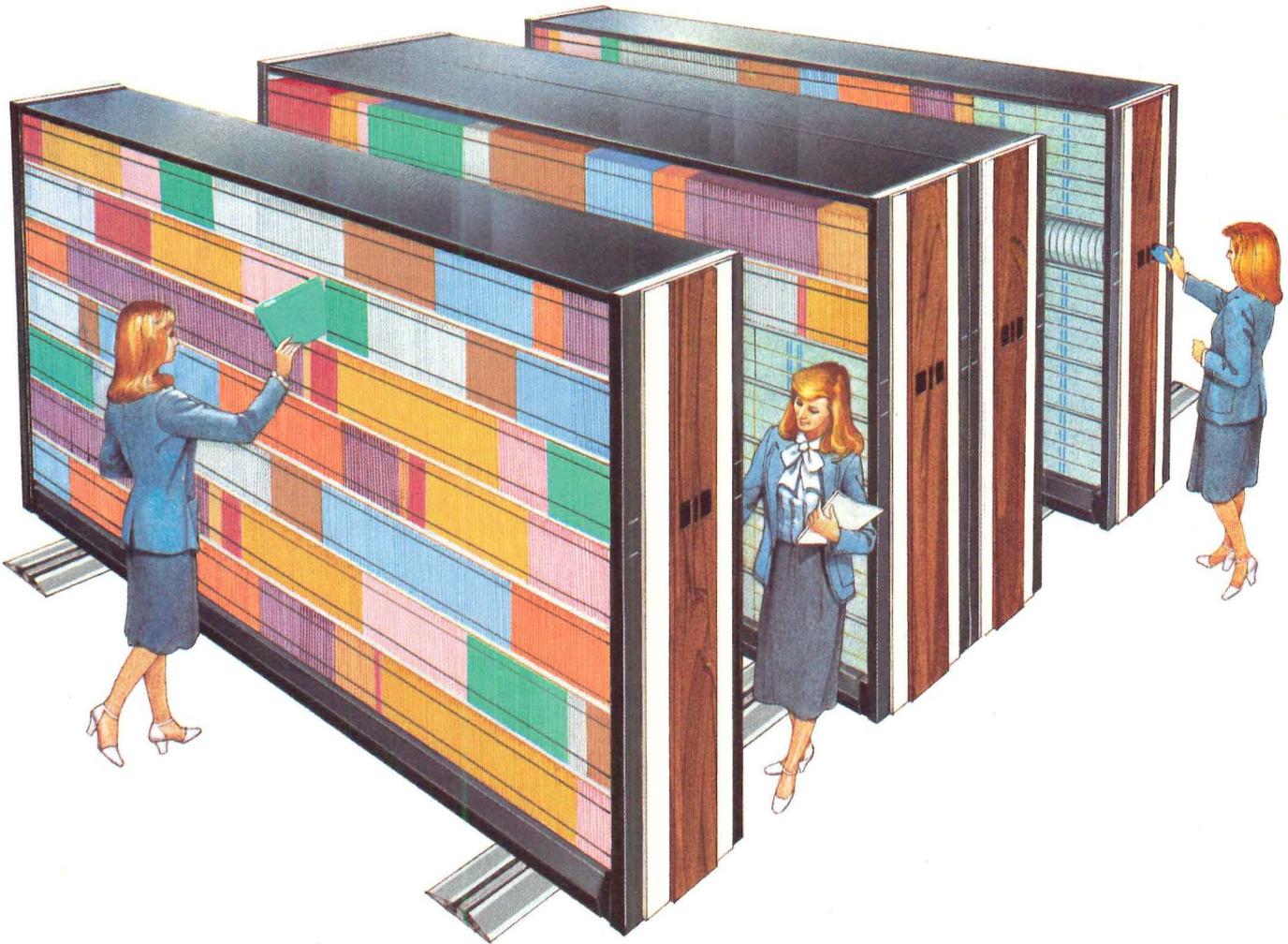
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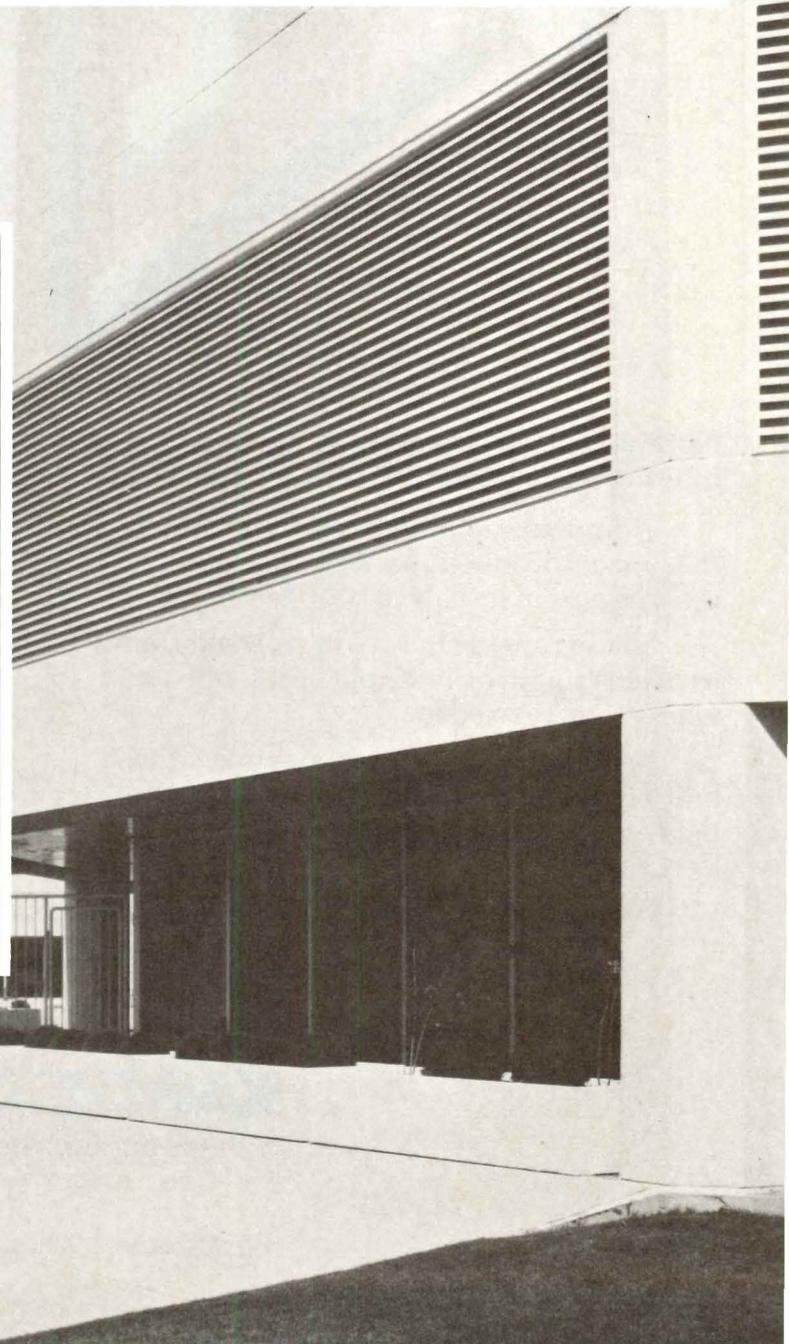
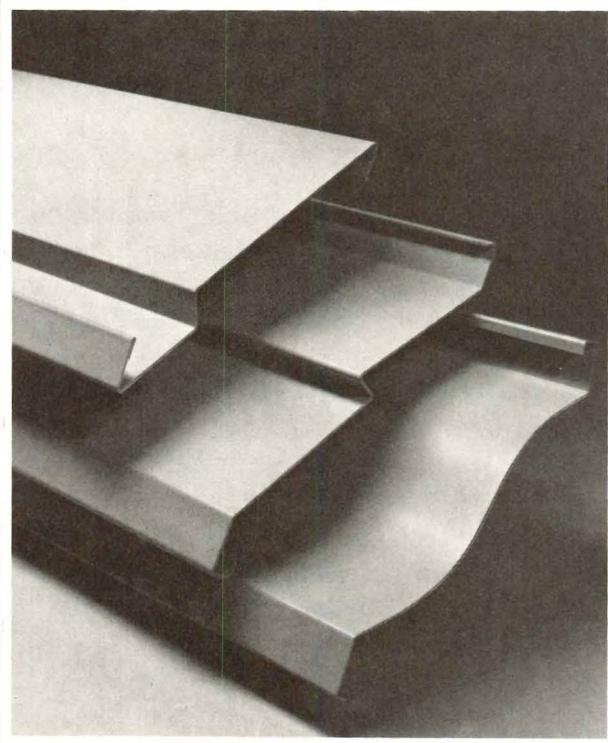
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Threat to Corb chapel continues
 The fate of Le Corbusier's church at Firminy Vert remains in doubt, despite repeated protests from the international architectural community.
 Last year's campaign, spearheaded by Richard Rogers, resulted in the relocation of a municipal gymnasium planned to abut the chapel.
 But there seem to be no further plans at present to protect, or even complete, the church.
 Of equal concern is the uncertain status of Corb's Unité d'Habitation at Firminy. The local housing authority has moved to close down and wall off the northern half of the building.

San Fran Center
 The San Francisco Museum of Modern Art has announced plans to establish a Department of Architecture and Design, the first such on the West Coast.
 The museum expects to appoint a curator early 1984.

Ward Willitts update
 The Ward Willitts Foundation failed in its attempt to acquire the Frank Lloyd Wright-designed house in Highland Park (P/A, Nov. 1983, p. 39) when the owner exercised his right of first refusal.
 The house has since been sold to a Chicago commodities broker.

Blatteau for Ben Franklin
 John Blatteau has been selected to redesign the Benjamin Franklin State Dining Room at the U.S. Department of State (P/A, Nov. 1983, pp. 100-103).

Providing a parking space
 The city of Columbus and the Irwin Miller Foundation are sponsoring a competition, supported by NEA, for the design of a 200-car surface parking lot in downtown Columbus, Indiana.
 Registration deadline: March 1.
 Contact competition advisor T. Liebman; 100 W. 42nd St., New York 10036 for more.

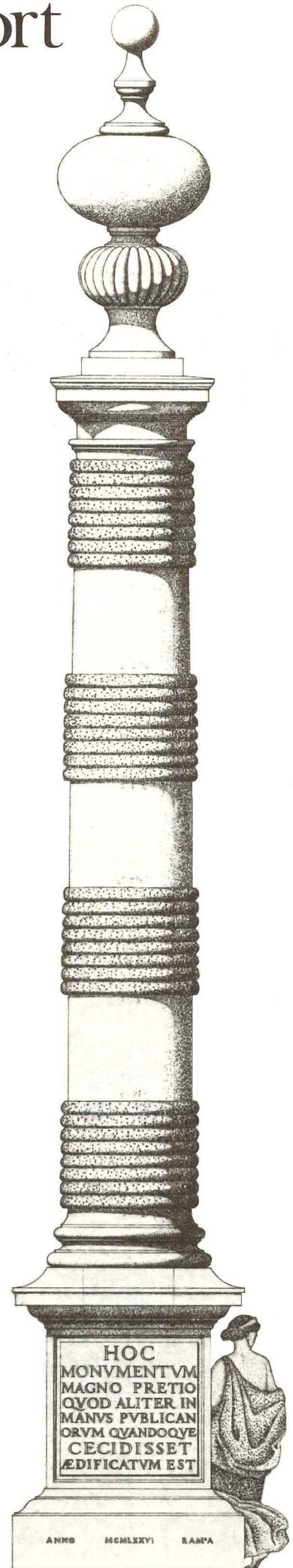
Happy Birthday, HABS
 The Historic American Buildings Survey celebrated its 50th birthday last month in Washington.
 Established in 1933 to provide jobs for unemployed architects, the program is now administered by the National Park Service and manned by students.
 Fete affairs included: exhibitions at the HABS headquarters and the Library of Congress.
 Pencil points continued on page 42]

Conspicuous consumption:
 Follies for sale

For Fragonard, it was the symbol of social license, for Poe, the idyllic pastorate. With the exception of Philip Johnson's witty pond pavilion (1963) or Quinlan Terry's more recent creations at West Green House, however, the folly has lain fallow for recent decades. But rest assured: It has been resurrected. Following the formula of its 1980 "Houses for Sale," the Leo Castelli Gallery, New York, invited 19 architects to submit "Follies: Architecture in the Late 20th Century Landscape" (Oct. 15-Nov. 15).

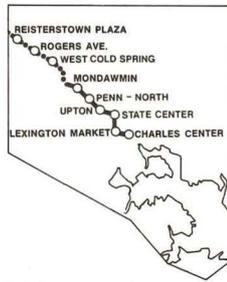
Hans Hollein's witticisms ("Form, Follies, Function") notwithstanding, this is a serious, sober show of mini-manifestoes, of projects that say more about architects' stylistic idiosyncrasies than about typological generalities. A few entries, however, do relate to the history of the folly. Batey & Mack update the 18th-Century tent-folly in their Southern California wine-tasting tent. Bernard Tschumi's "Broadway Follies" bring the type into the 20th Century, while Arata Isozaki's tea pavilion poses an Eastern alternative to the folly, an essentially Western invention. Other *follistes* explore more private obsessions: Michael Graves's archetypal cave and tent, Emilio Ambasz's Texan landscape; Peter Eisenman's Euclidean (de)composition, or Frank Gehry's fish.

Ricardo Bofill's soft-pedaled proposal for mass-produced temple-follies, one of few that address the folly's socioeconomic symbolism, turns on its head the tradition of folly as rich man's private plaything. That tradition is upheld by the follies of Quinlan Terry, built over a period of eight years at the Hampshire estate of the Honorable Alistair McAlpine. (Too bad no photos show these follies *in situ*; the relationship of folly to landscape, so important to 18th-Century *follistes* but generally absent in this exhibit, is only hinted at in Terry's site plans.) The frank inscription on a memorial column reads: "This monument was built with a large sum of money which would have otherwise fallen, sooner or later, into the hands of the officials of the Inland Revenue." The economics of folly-building otherwise take a strange twist in the Castelli show: drawings and models, not buildings, are for sale.



Quinlan Terry, Memorial Columnn.

The topic dovetails with a mini-Gothic revival underway at present in popular literature. In fact, the architects' stiff explanatory essays could have used some assistance from their literary counterparts—from Gothicists past (Ann Radcliffe, whose *Mysteries of Udolfo* (1794) has been recently reissued) or present (Joyce Carol Oates, whose *Bloodsmoor Romance* reinterprets the type). No matter; curator Barbara Jakobson (who writes as B.J. Archer) gives us Poe, reprinting his short story "The Landscape Garden"; and Anthony Vidler's short "History of the Folly" sums up the subject with *Finnegan's Wake*. What's more, the drawings and models are exquisitely produced, real tours de force in technique. [DDB]



Baltimore Metro

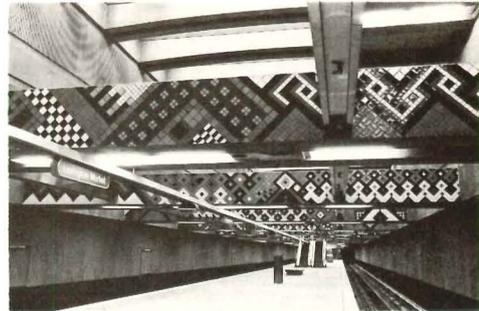
The city of Baltimore has had plenty of time to plan the celebrations marking the Metro's opening. The subway system's debut had been delayed for over two years, and in the end MTA administrator David A. Wagner simply stopped issuing estimated opening dates. But compared to troubled Buffalo whose \$530 million system faces serious engineering and construction defects (p. 42), Baltimore has breezed on through.

The completed eight-mile, nine-stop line is much reduced from the original six-radial, 72-mile pipe dream proposed in all seriousness in 1965; nor does it match the scaled-down plan for a 28-mile network approved by State Legislature in the early 1970s. But the single line, which runs from the heart of downtown out through Northwest Baltimore, should pull in 25,000 riders a day at first, moving up to 65,000 when connections to the city bus system are complete. If the proposed eastern extension is built, the system will service the city's largest employer, Johns Hopkins Hospital.

The Baltimore system is an amalgamation of parts proven in other cities. The single-farecard mechanism mimics that of the Paris Metro, avoiding D.C.'s problem-plagued stored-value cards in favor of a single 75¢ fare. Its control and propulsion system is copied from San Francisco's BART; its signaling system from Atlanta's MARTA; and its fire-control system is the most up-to-date dousing mechanism in the country.

If the technology is imported, the art work and architecture are Baltimore-bred. A One Percent for Art program paid for art in every station, including a lively mural in Upton Station celebrating city jazz, and a punchy series of tile mosaics, patterned along beams at the Lexington Market stop. Each station was designed by a different team of architectural and engineering firms. DMJM, who served as the system's general consultants, designed two stops, and CSD designed the operations headquarters building.

The stripped-down strictly functional stations and no-frills cars (carpetless for easy maintenance) are somehow appropriate to this amiably gritty city. The concrete-coffered, quarry-tiled interiors may seem too much alike, but their surrounding contexts could not be more different. The D.C. subway was accused of catering to a white collar constituency; but the Baltimore Metro cuts a swath through every economic and social layer, from Charles Center, the city's urban renewal centerpiece, through

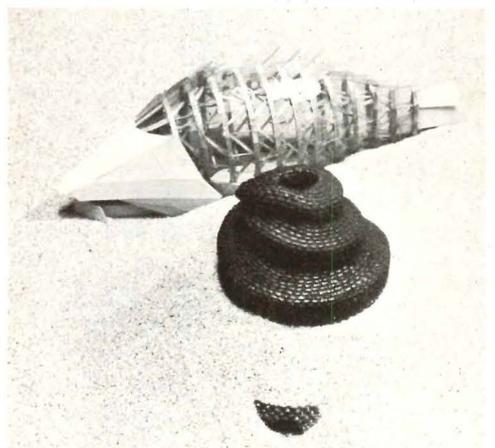
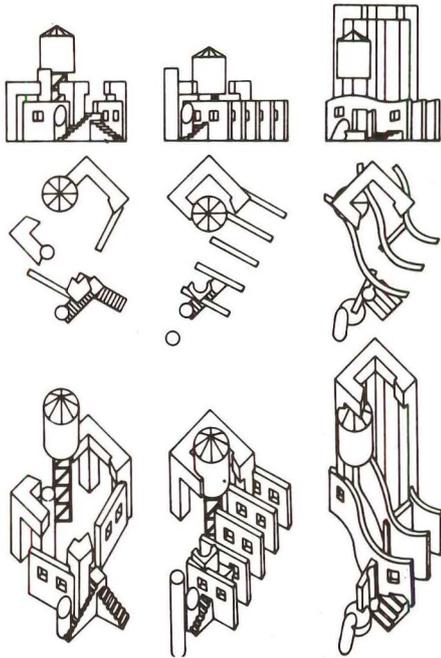


Reisterstown Plaza, DMJM/Baker Wibberly; Lexington Market, Leon Bridges/CSD/Parsons, Brinckerhoff, Quade & Douglas; Upton Station, Nelson Salabes/Sulton-Campbell/ Tippetts Abbett McCarthy Stratto

Lexington Market, the 201-year-old fish and meat mart, out past gentrified Bolton Hill, through the predominant black neighborhoods surrounding the Pennsylvania North and Rogers Avenue stations to the white suburbs.

These neighborhoods already show pressures of new development. Some \$50 million worth of new office, residential, and commercial construction is already underway within 2000 feet of the line. So far the new development is concentrated in comparatively well-off areas; poorer Rogers Avenue and Pennsylvania North have seen only one housing project proposal between them.

Given the expense of the system—\$797 million to date or nearly \$100 million per mile—cheaper alternatives to future lines are being explored. The problematic plan to build a "busway," a 2-lane highway reserved for buses that would run north along the Jones Falls, has not been ironed out or approved. And the construction of a proposed airport spur has been put emphatically on a back burner, pending completion of the Hopkins line. [DDB]



Bernard Tschumi, *Broadway Follies*; Ricardo Bofill, *Temple-House*; Frank Gehry, *the Prison*.

Battery Park's grand design

Manhattan's showpiece, Battery Park, is looking good. The first section of the waterfront Esplanade opened last summer (P/A, July 1983, p. 24), and Pelli's World Financial Center is out of the ground, with the first building set for occupancy in late 1984. Last month, the Battery Park City Authority (BPCA) unveiled the designs for Rector Place, the nine-acre residential development south of Pelli's parcel.

The \$315 million, 2000-unit Rector Place will be built by six private developers, working within the strict guidelines established in the BPCA's 1979 Master Plan. (Only the 1974-designed Gateway Plaza residential complex predates the present plan by Cooper Eckstut Associates.) The Rector Place site has been split into four city-sized blocks, broken down further into twelve development parcels. Streets, utilities, and, significantly, public spaces, including the esplanade extension and Rector Park, are all to be built by BPCA.

In simple terms, the guidelines mandate adherence to the street edge (no windswept plazas here), the use of traditional materials (no exposed spandrels allowed), two-story stone bases, "expression lines" (cornices, or other changes in articulation at 80 feet to 130 feet), arcades where designated, and rooftop articulation. The recipe may sound specific to a flaw, but the results are surprisingly varied, from Charles Moore's World's Fair façade to the Gruzen partnership's elegant Decoid design.

In fact, the imposed design guidelines do not go as far as they might; Rector Place is no Place Vendôme where uniform public façades surround a square and behind which developers were free to do as they pleased). Instead, the BPCA has turned to New York precedents, to Gramercy Park, Riverside Drive, and Central Park West.

The projects show what speculative building can and should aspire to, from Donald Ryder James's modest and skillful midrisers, to Conklin Rossant's playful "South Dakota" complex, to Ulrich Franzen's streamlined beacon on West 11th. Two schemes, one by Davis Brody Bond and the other Franzen's second, waterfront tower, suffer from last-minute last changes—the former of developer and the latter of architect—which occurred less than a month before the designs went on public view at New York's Urban Center.

Rector Place takes on added significance in light of recent events in New York. So far, Battery Park City has remained unaffected by either the changes in direction (P/A, March 1983, p. 25) at its parent organization, the Urban Development Corporation, or by the citywide mudslinging prompted by the Convention Center crises. There, "flashy design" has been blamed for construction problems (specifically, flaws found in the fabrication of the space frame nodes). It is therefore comforting to see that, at Battery Park, good design remains a top priority. [DDB]

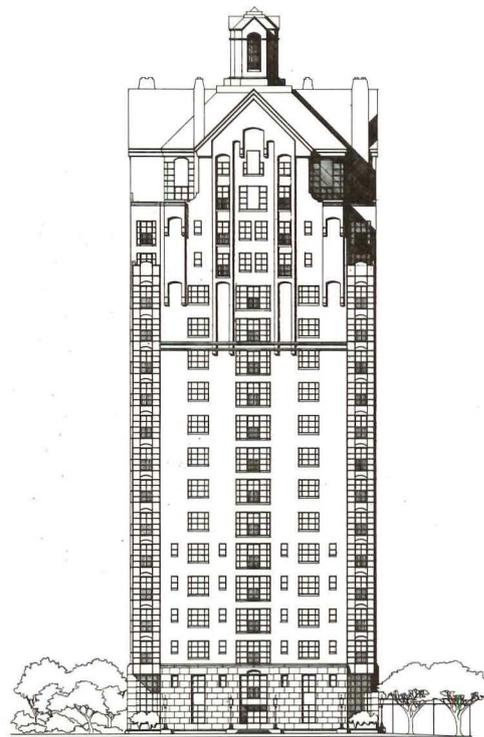
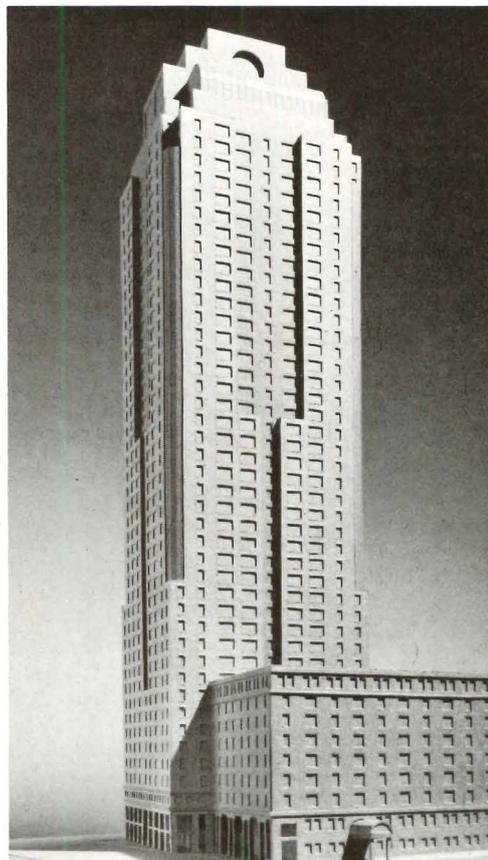


de Menil delight

"Decoration should be an inherent resolution of issues," declared Charles Gwathmey as he discussed the de Menil Table, a Gwathmey/Siegel design inspired by the firm's research into Viennese Secessionist furniture for the de Menil house (pp. 47-57), and introduced this year by ICF. After concluding that there were no wood tables that suited the chairs of the period for living or dining room use, Gwathmey designed a table that marks the Modernist

distinction between surface and support by revealing the support, in plan, on the table surface. Bases and edges are solid wood, while the table tops are of contrasting wood veneers. A thin brass inlay on the table surface describes the base boundaries while defining the "functional edge" of the table, where dishes and ashtrays are usually placed. The dining table's top is thinner than that of the coffee table (above) to maintain the correct proportion of base to top, which are available in a number of combinations. [PV]

[News report continued on page 29]



Above: Ulrich Franzen & Associates; right: Conklin Rossant; Charles Moore/Rothzeit, Kaiserman, Thomson & Bee.

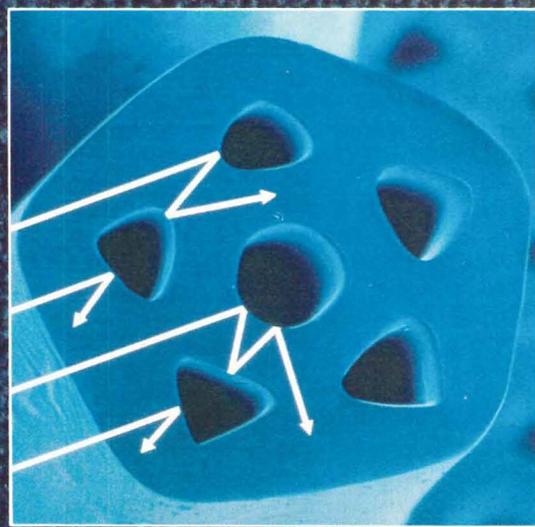


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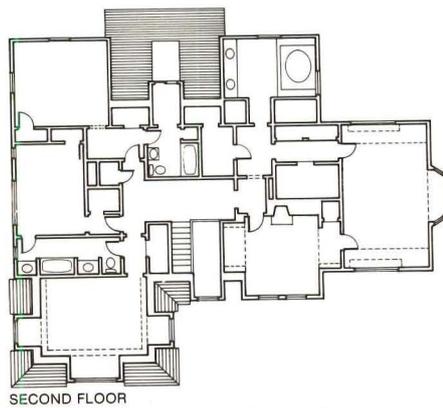
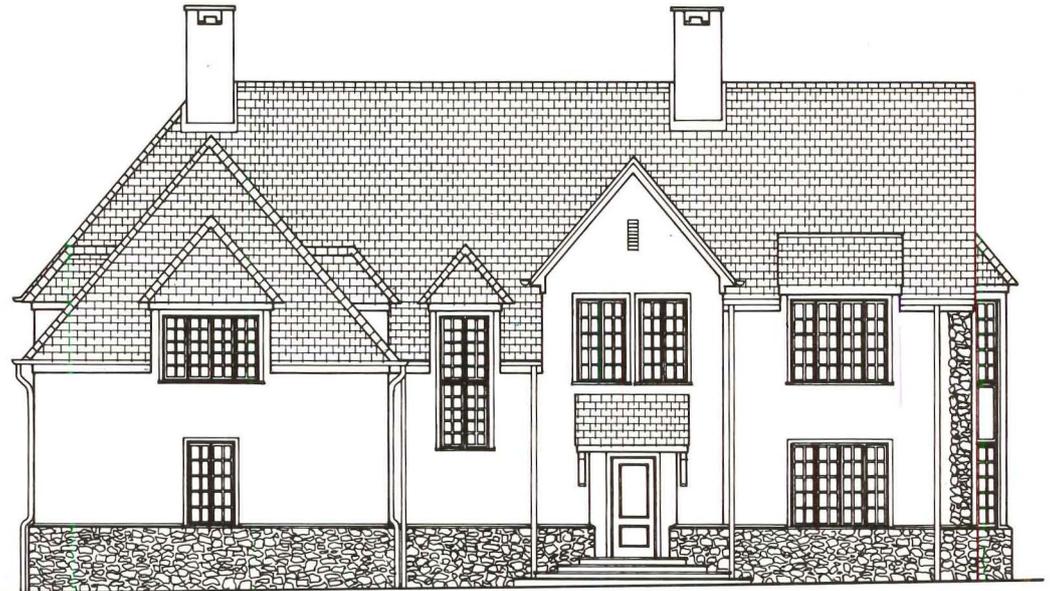
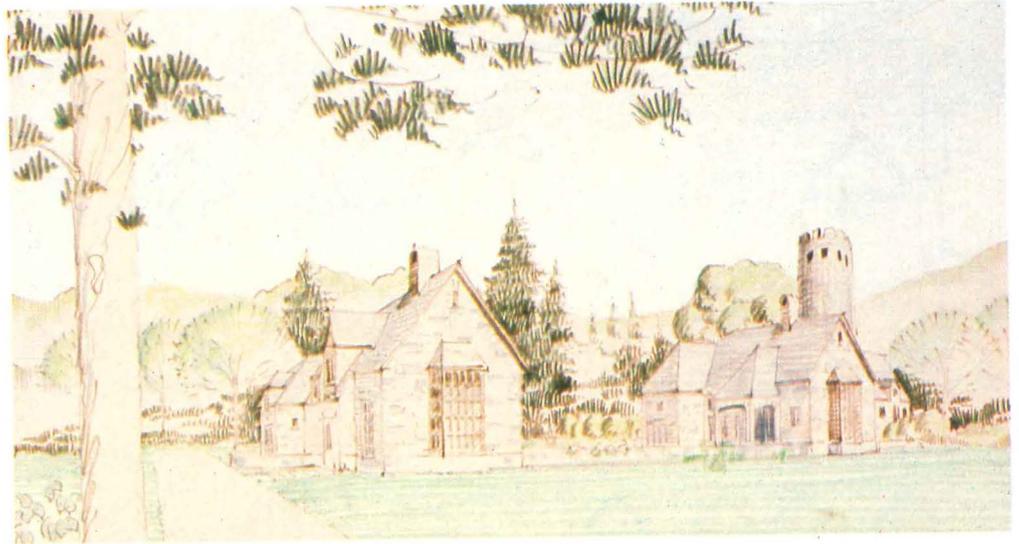


Projects Portfolio

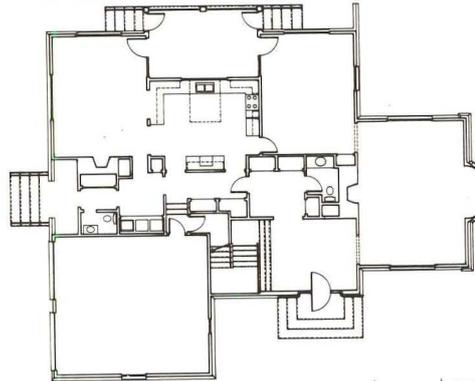
Robert A.M. Stern Architects

This portfolio profiles residential and academic projects currently on the boards at Robert A.M. Stern Architects. The three residential projects reflect Stern's extensive research on suburban housing. Precedents explored in single-family commissions, such as the Shingle-styled Lawson residence (1979-1981) or the recently completed Bozzi house, are expanded and modified to suit the demands of speculative development. The two U. Va. projects draw upon the different but related tradition of campus architecture and planning.

Copperflag Residential Development, Staten Island, N.Y. Robert A.M. Stern Architects, New York. Drawing upon the principles of suburban housing design advocated by architect Ernest Flagg in his book *Small Houses, Their Economic Design and Construction* (1922) and tested in sample houses built on the Flagg estate, Stern developed a "design manual" governing future development on the landmarked Flagg estate. The manual mandates the use of Dutch Colonial, French Norman, English Cotswold, or the Arts and Crafts styles. Materials, paving patterns, preferred roof slopes, and other details all are specified. Stern's implementation of these guidelines mixes formal site-planning principles with the more picturesque massing and details of individual houses. Existing features, including the windmill, Palm house, and stable, are to be restored and some out buildings converted to residences.

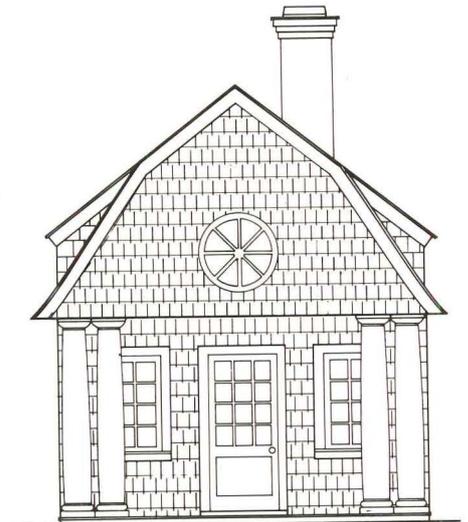


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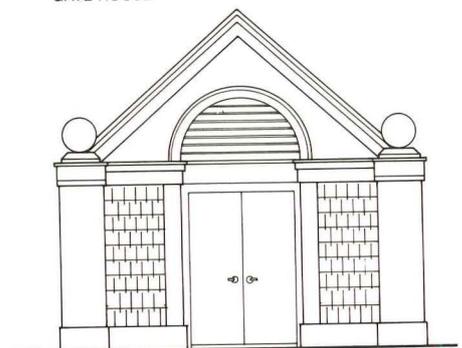


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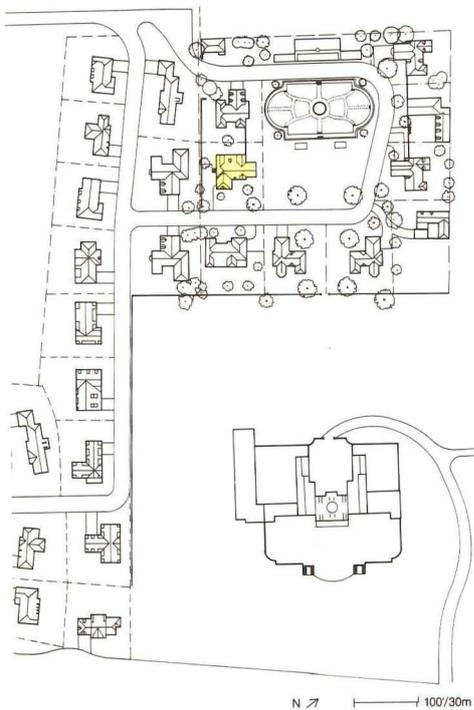
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GATE HOUSE



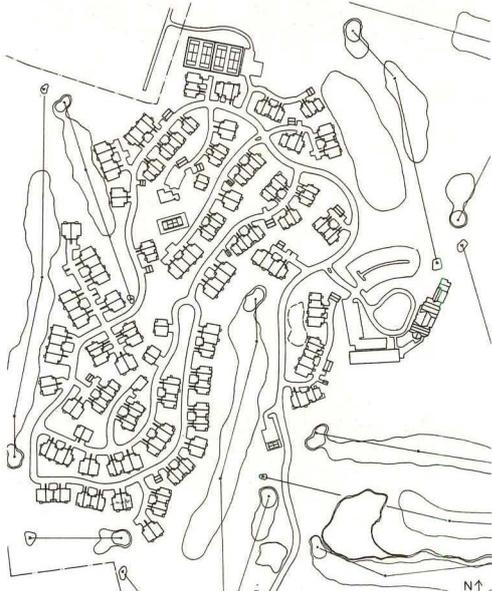
PUMP HOUSE



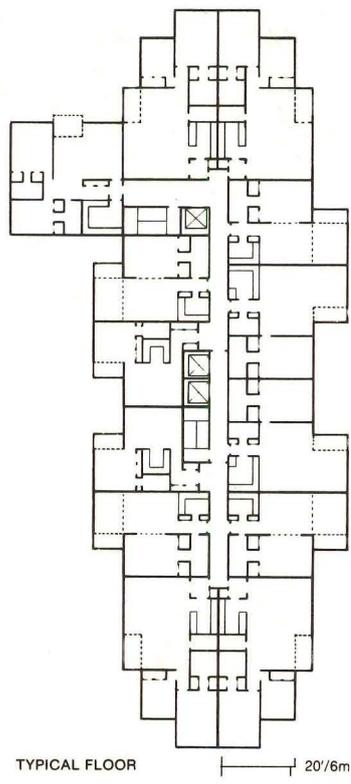
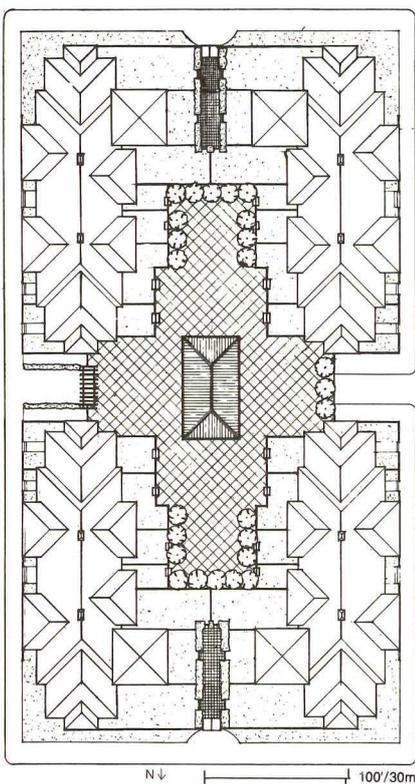
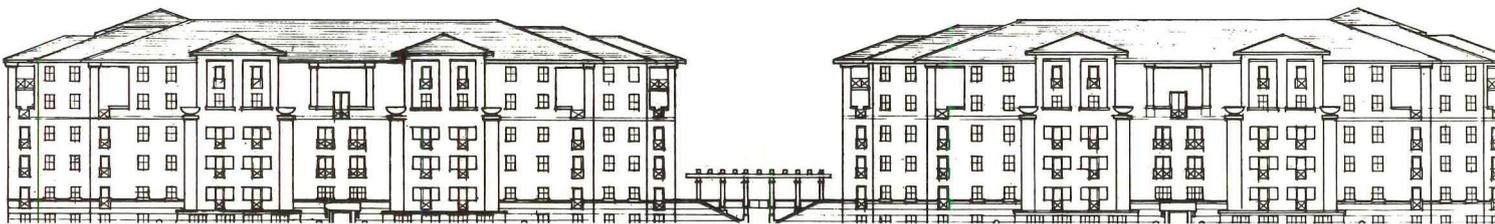
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News report continued from page 29



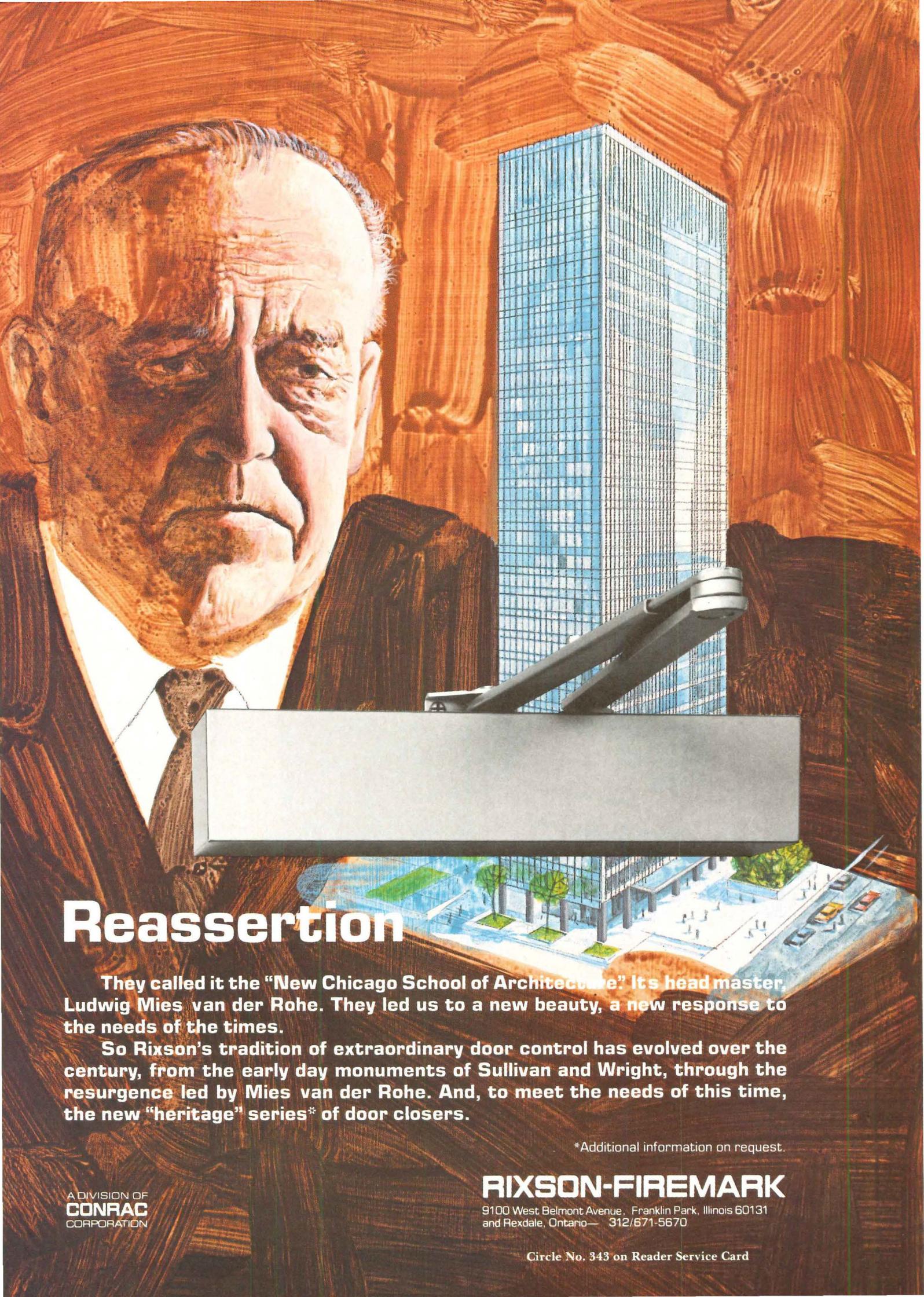
St. Andrews, Hastings-on-Hudson, N.Y. Robert A.M. Stern Architects; Davies & Poe, Inc. Architects, New York. This community of 20 luxury condominiums, sponsored by golfer star Jack Nicklaus, is clustered on a steep hillside above the historic St. Andrews golf course. Units are grouped to suggest large manor houses; their dark brown shingle and white latticework correspond to the golf course clubhouse, attributed to Stanford White. The 82 units of phase one are now under construction, to be followed by 12 additional units in 1984. The clubhouse itself is to be renovated and a summer cottage owned by Andrew Carnegie converted for use as a recreation center for residents.



Cherry Creek Residential Development, Denver, Colo. Robert A.M. Stern Architects, New York; Michael Barber Architecture, Denver, Colo. This lower income housing project represents a departure from the upscale genre of St. Andrews and Copperflag. Situated in a modest neighborhood of post-World War II bungalows, the block's four five-story towers wrap a parking podium. Spanish details pick up the Southwest regional style. The 300 units are priced at \$100,000 and run from 750 to 1300 square feet. Construction is tentatively scheduled to start in early 1984.

[News report continued on page 34]





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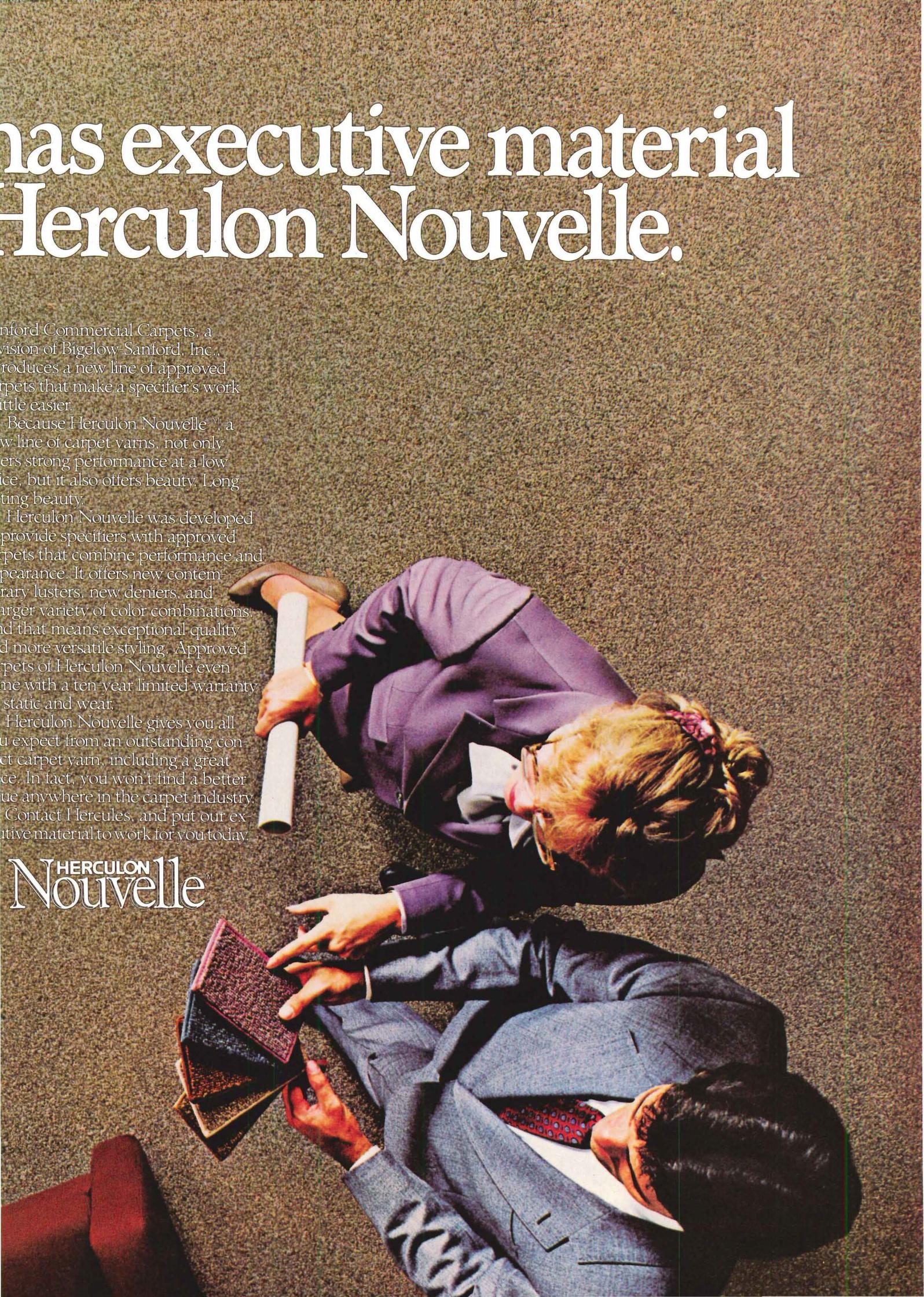
Sanford Commercial Carpets, a division of Bigelow-Sanford, Inc., produces a new line of approved carpets that make a specifier's work a little easier.

Because Herculon Nouvelle™, a new line of carpet yarns, not only offers strong performance at a low price, but it also offers beauty. Long-lasting beauty.

Herculon Nouvelle was developed to provide specifiers with approved carpets that combine performance and appearance. It offers new contemporary lusters, new deniers, and a larger variety of color combinations, and that means exceptional quality and more versatile styling. Approved carpets of Herculon Nouvelle even come with a ten-year limited warranty against static and wear.

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Nouvelle™



Ful-O-Mite IDF* the exterior insulation system from H.B. Fuller that sets new performance standards.

Ful-O-Mite IDF is the most beautiful way we know to beat the heat of summer and the chill of winter.

Ful-O-Mite IDF has the strength to withstand impact, while having the flexibility to accommodate building movement without cracking. Ful-O-Mite IDF meets fire code requirements. The system stands up to airborne pollutants and salt spray. Tested by independent laboratories, under the most rigorous conditions, Ful-O-Mite IDF surpassed the leading competitive exterior insulation decorative finishes for strength and durability.



Ful-O-Mite IDF gives a building a beautiful appearance while providing long-lasting durability. This exterior insulation system forms a solid barrier against weather's worst: keeping winter's freezing temperatures and summer's scorching heat outside, where they belong. A difference made obvious in occupant comfort and reduced utility bills.

How does H.B. Fuller do it?

We are the only company to develop a latex polymer raw material specifically designed for our own product. In our finish coat, this latex promotes a tougher, harder cure, increasing its resistance to weather.

At H.B. Fuller, developing our own resins is just part of our commitment to providing our customers quality, consistency and compatibility within the bonding system.

The primer coat of Ful-O-Mite IDF by H.B. Fuller has extremely *fast grab power*. You can eliminate the need for a baseboard when installing the foam. Embedding the reinforcing fiberglass mesh is a lot easier too! The finish coat has a longer open time, and offers freeze/thaw stability in the pail and in its cured state. You're assured a quality product at the job site.

If you'd like to get the facts on Ful-O-Mite IDF, write to: H.B. Fuller, Attn: Ful-O-Mite IDF, Department M, 315 South Hicks Road, Palatine, IL 60067 or call (800) 323-7407 or if in Illinois, call (312) 358-9500 and request a free copy of the test results.

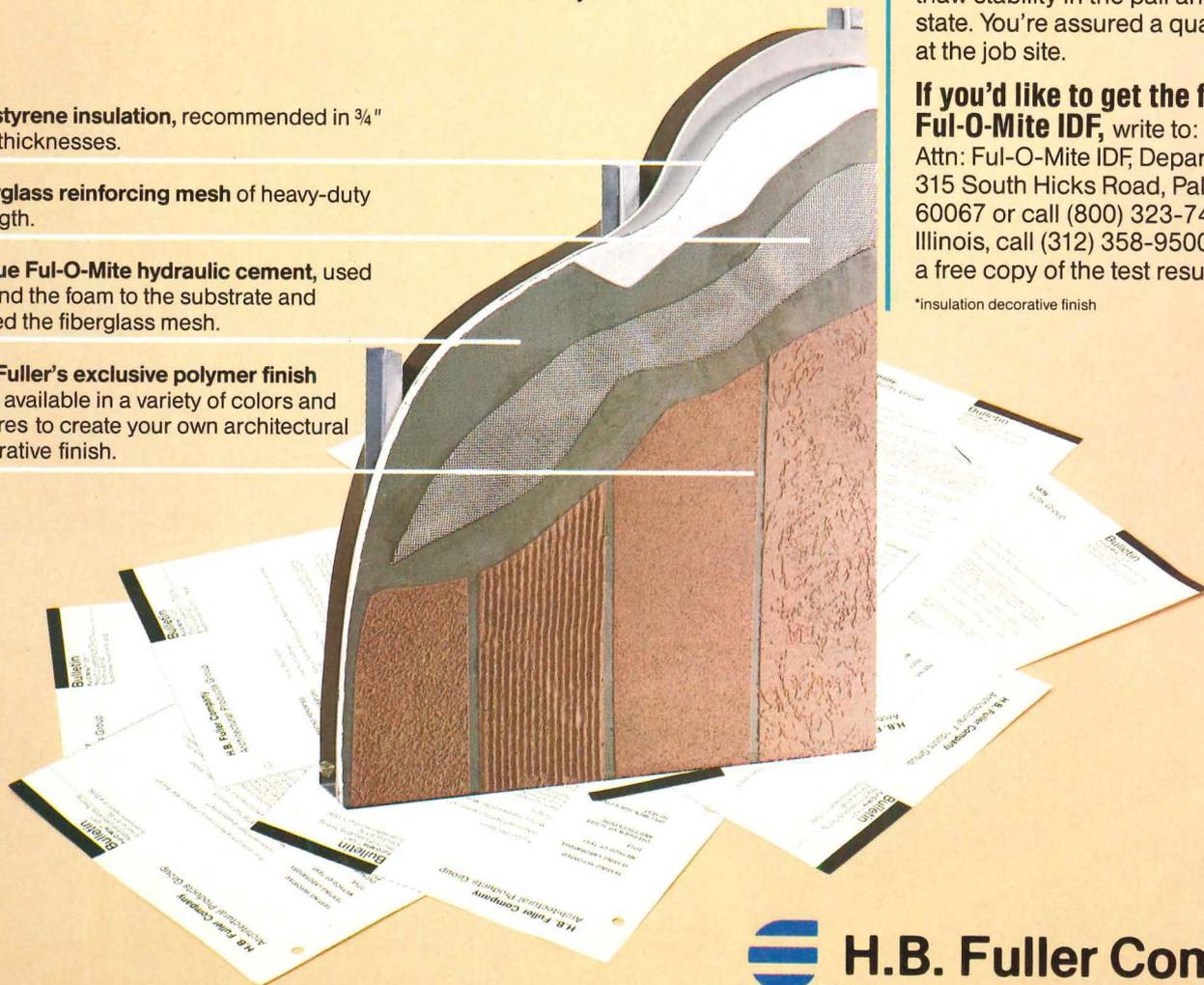
*insulation decorative finish

Polystyrene insulation, recommended in 3/4" to 4" thicknesses.

Fiberglass reinforcing mesh of heavy-duty strength.

Unique Ful-O-Mite hydraulic cement, used to bond the foam to the substrate and embed the fiberglass mesh.

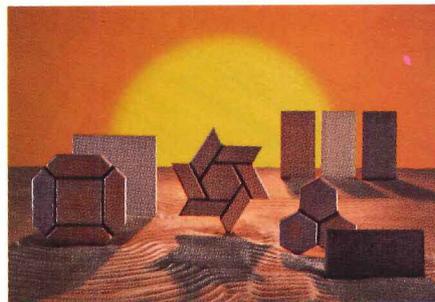
H.B. Fuller's exclusive polymer finish coat, available in a variety of colors and textures to create your own architectural decorative finish.



H.B. Fuller Company

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**Metropolitan Ceramics
goes 100% natural gas to
produce its high-quality
IRONROCK® tile.**



"We've taken out our dual-fuel capability, and we only use gas," says J. Steven Renkert, president of Metropolitan Ceramics, one of the country's leading tile manufacturers, located in Canton, Ohio. "Gas is more precise. It's cleaner and gives us better quality control for our critical color uniformity," he says.

Metropolitan's IRONROCK® tile is recognized as one of the best unglazed, high density tile lines made in the U.S. It is admired for the beauty of its natural earth-tone colors, and for its exceptional durability. 100 million shuffling feet a year haven't scuffed the IRONROCK that paves 10 acres of the new Atlanta airport.

For over 80 years, Metropolitan paving tiles and bricks have been used for flooring, walls, sidewalks and roads—including part of the original Lincoln Highway and several of the Manhattan tunnels. Using new technology, Metropolitan now produces IRONROCK split tile and the new Normandie® line for residential and fine commercial applications. Both lines are as durable as brick, but easier to ship, install and maintain.

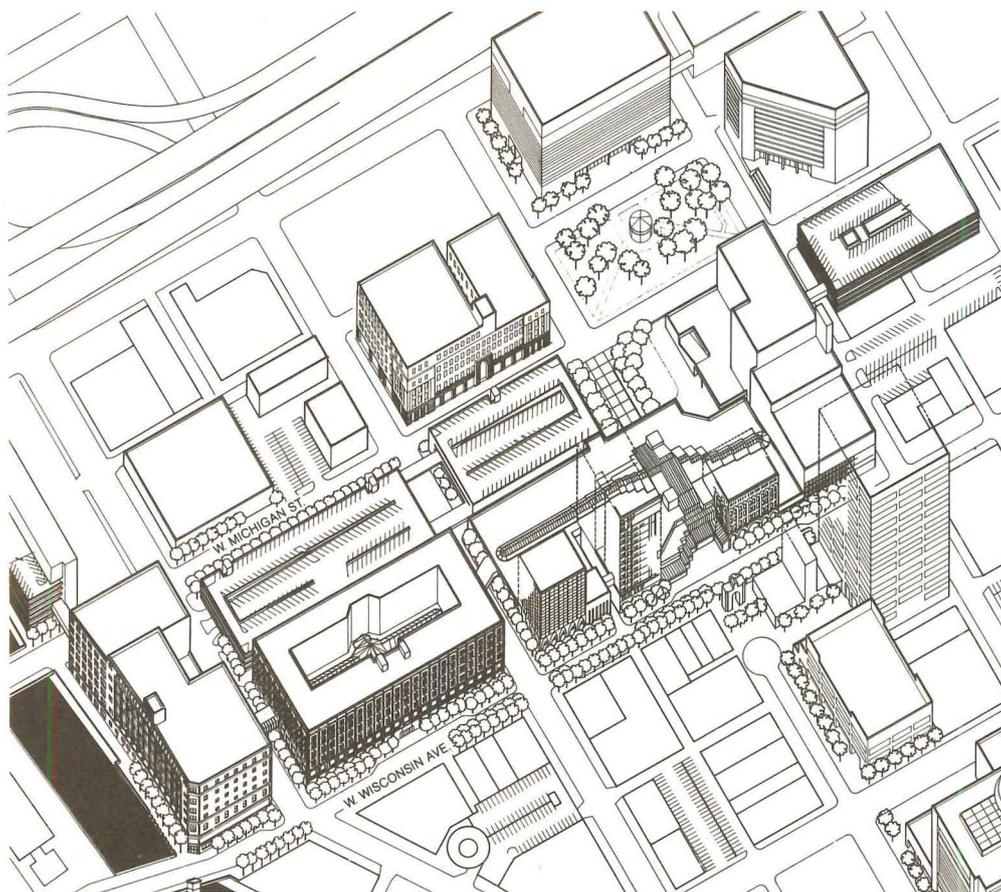
The tile get their reduction-fired or clear-toned colors from the firing process in two large kilns. They were designed to burn either oil or gas, but after experimenting with both, Metropolitan decided to stick with gas exclusively.

Like Metropolitan Ceramics, more and more manufacturers are finding that clean, efficient natural gas works best to meet their energy needs.

Gas gives you more for your money.

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Perspectives



Milwaukee's Grand Avenue

The Rouse Company's alchemy has created gold again. The financial success of The Grand Avenue complex in Milwaukee soars off their projection charts as over 25,000 people daily stream through this four-block-long, inner-city shopping mall.

It took seven years, \$70 million, and the joint efforts of The Rouse Company, the Milwaukee Redevelopment Corporation, and the City of Milwaukee to resurrect the once prosperous, turn-of-the-century Grand Avenue from its post-war decay. New life was instilled into the existing historic building stretch by fusing a multilevel glazed arcade to the rear façades of four adjacent buildings with pedestrian bridges on both ends, anchored to The Boston Store and Gimbel's.

This new life-support system, which includes 160 shops and two parking structures for 2000 cars, was created by the ELS Design Group (Elbasani, Logan, and Severin). Barry Elbasani, the partner in charge, aspired to create a "nonbuilding," an infill structure that fills the poché between existing buildings. His objective and solution matched. The only external play-of-hand occurs on the front Wisconsin Avenue façade, where the 100-foot-wide glass entry spills out in a former gap between the Woolworth and Universal Building façades. The Michigan Street elevation, with its massive parking garages, was regarded as nonfrontal/nondesign statement: The garages are contextual, proportioned to mimic office buildings minus the glass.

Given this minimal external expression, ELS focused on the interior arcades and public concourses, which had to accommodate, penetrate, and somehow amalgamate six disparate existing buildings. The solution is derived from the marriage of two aesthetics: Plankinton's existing Italian Gothic arcade and rotunda (Holabird & Roche, 1915, not restored) merged with The Rouse Company's trademark of atmospheric bustling. Key elements represent things old, new, borrowed, and exchanged, a mélange dubbed "High Tech Renaissance" by Elbasani. Plankinton's existing height/width, solid/void relationships and column beat continue their march in stripped ornament through the new arcade. The new skylights' solar-gree



Eric Oxendorf

intent of the City of Bellevue to architect, landscape architect, or planner to design a new, 17 acre or more park in downtown Bellevue. The City offers the widest possible latitude in the inclusion of architectural and landscape features. A public survey of the site desired in the park is available to the designers.

Competition is in two phases and is open to design professionals, interns and students. Professional license is a requirement for competition registration. Designers and interns not registered in their own discipline must be sponsored by a registered professional. To participate in the second phase of the competition, architects must be, or must associate with, architects or landscape architects licensed to practice in the State of Washington.

Phase I submission requirements are a site plan and any other graphic and written information that can be contained on two, 30" x 40", rigid boards. Designers may utilize color and any medium that allows the boards to be stacked flat, face-to-face. Phase I entries will be identified by registration number only.

An agreement to prepare a conceptual masterplan will be offered to three to five individuals or firms, and provides for an honorarium of \$10,000 each. From this group the City will select a winner, who will be offered the commission to design the initial phase of the park's development. The estimated cost is \$5.0 million, including fees and incidental expenses.

The masterplan presentation requirements will include a plan of the park's development, illustrations of the proposed features, a narrative discussion of the operation, scope cost estimates, and a phasing schedule. A model will not be required in either phase.

Competition Announcement:
December 1, 1983
Competition Materials Available:
January 10, 1984
Deadline for Registration: March 15, 1984
Phase I Competition Entries Due:
April 3, 1984
Phase I Winners Announced: May 7, 1984
Phase II Commences: July 2, 1984
Phase II Masterplan Due:
August 31, 1984
Final Selection: October 10, 1984
Registration Fee: \$100.00 US

A registration fee is required of all entrants and is non-refundable. The fee covers the cost of the program, maps, and other competition materials; the receipt, handling, storing, insurance, and exhibition of the Phase I competition proposals; and the printing and distribution of the Jury's report. All entries will be illustrated and published in the Final Report of the Jury. Each registrant will receive a copy. There are no restrictions on joint or multiple entries, however only one entry per registration will be allowed. The City Council, Selection Jury, Advisors, and employees of the City of Bellevue are not eligible to compete.

The City of Bellevue will retain rights of exhibition and publication of all entries. The City will retain ownership of all registration and submission materials.

Send registration fee (\$100.00 US) and name, address and professional registration number of individual(s), firm, team, or sponsor in whose name(s) the Phase I design proposal will be submitted. Publication credits will contain this same information. Checks should be made payable to City of Bellevue. Registrations must be received by the Registrar not later than 5:00 p.m. PST March 15, 1984. Mail registration and fee to:

Registrar
Marie K. O'Connell
City Clerk
City of Bellevue
11511 Main Street
Post Office Box 1768
Bellevue, Washington 98009



The City of Bellevue, Washington announces Design Competition for a Downtown Central Park

Advisor:
Robert J. Scully
Trumbull Professor
of the History of Art
University of Washington

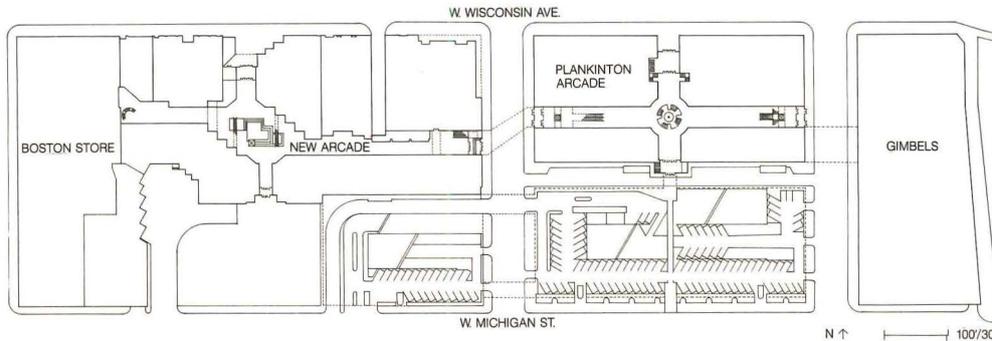
Jury:
Robert Johnston, FAIA
Associate Dean,
College of Architecture
Urban Planning
University of Washington

Richard Schauman, ASLA
Professor, Department of
Landscape Architecture
University of Washington
Bellevue Residents

John Springgate
Director of Parks
Richard Pottoff
Director of Planning

Professional Advisor:
Richard C. Wundram, AIA





Eric Oxendorf

glazing generated the Gravesian palette that flows throughout. The restored light fixtures are replicated in the new, while the new brass rail details are carried into the old areas.

Sussman/Prejza applied the ELS design approach to the graphics program. The Grand Avenue quatrefoil logo is a stripped version of a Plankinton ornamental motif. When references could not be drawn from the Plankinton, Milwaukee's heritage provided inspiration. The brewery influence is represented by the restaurants clustered in the Speisegarten, which features a mechanical aerialist bear that traces its lineage to Bavarian legend. Arcade walls are embellished with photomurals of palm-lined, turn-of-the-century beer gardens; real palms line areas absent of walls.

It all comes together in a comfortable, safe, rationalized way. There are no trumpeting design statements, but there are a few discomfiting design details.

The massive skylights, which distribute cheerful light through the arcades' multiple levels, conform to Wisconsin's energy laws, but do not focus views of the surrounding building. The quarry tile floor is the tried-and-true Rouse floor, which deviates from the ELS color palette.

A large part of the undertaking was restoring and revitalizing the existing buildings. This regeneration, in conjunction with its hidden support system, has restored the life of a once dying patient. The Grand Avenue flourishes again as it once did decades ago. The successful facelift allows new generations to experience their heritage. Perhaps this is why the natives come daily by the thousands. [Deborah Doyle]

Deborah Doyle is a Chicago architect in private practice. Editor of the Chicago Architectural Journal, she teaches at the University of Illinois, Chicago.

[News report continued on page 42]

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Or use the reader service number **344**

Free.

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Niagara Falls, New York

ARCHITECT:

Cannon Design Inc.

GENERAL CONTRACTOR:

Siegfried-Scarfari,

Joint Venture

Dover Elevators sold and
installed by Dover Elevator Co.,
Buffalo, N.Y.



gress; the publication of *Historic America*, a commemorative book; a conference on documentation technology; and 26 state exhibitions.

Remembering Robert Newman
Death on October 2 took acoustician Robert B. Newman, the architect partner who joined with a physicist and an electrical engineer in 1949 to form Bolt Beranek & Newman, acoustical consultants. In the years since, BBN made invaluable contributions to the science/art of acoustics, spun off illustrious alumni, and expanded into a diversified research and development company. As a professor at both MIT and Harvard, Newman shared his wisdom and wit with generations of aspiring architects.

After the hurricane
The shower of glass shards dumped on Houston by August's Hurricane Alicia has been cleaned up, but invisible damage to unbroken panes has become the focus of mounting concern.
¶ The spectacular damage done to downtown towers, especially the Allied Bank Plaza, Hyatt Hotel, and International Plaza, may have been compounded by cleanup crews who knocked out broken panes, allowing pieces to bounce off lower windows. The failure of glass still intact but weakened by the storm could come at any time without warning.
¶ Original reports blamed everything from bad design to cheating contractors, but

flyng roof gravel is now accepted as the principal cause of damage. Experts propose that codes be changed and parapets added to prevent a repeat disaster.

Son of Seagrams
Peter Palumbo, the London property developer who owns the Farnsworth house, now plans to build a 22-story, Mies van der Rohe-designed office building in London.
¶ Mies signed a full set of working drawings for the bronze-clad, bronze-glazed tower two weeks before his death in 1969, but it has taken Palumbo 14 years to assemble the site, which fronts Wren's Church of St. Stephen Walbrook and Lutyens' Midland Bank facade.
¶ Times have changed since the 1969 City Commission granted approval, and Palumbo now faces opposition from some preservationists and urbanists.
¶ Norman Foster, James Stirling, and Richard Rogers, though, have all come out for Mies.

Bad news at the Beaumont
For five of the past six seasons, the Vivian Beaumont Theatre at Lincoln Center has remained dark.
¶ At issue is the impact of architecture on the theater's viability. The Beaumont Board claims that the awkward stage, poor sightlines and out-of-sync acoustics necessitate a \$6 million reconstruction before any future productions can be considered.
¶ But Lincoln Center's supervisory board disagrees and has taken steps to ensure that the proper artistic plans be laid before architectural ones are undertaken.

Buffalo subway woes
Serious construction flaws have been found in the new 6½-mile Buffalo subway system.
¶ As built, the concrete tunnels lack sufficient clearance for trains to navigate turns.
¶ Only two of a dozen core samples showed the proper 12-inch wall thickness; some samples registered only a 2-inch thickness.
¶ The tunnel ceiling may not prove strong enough to support the trains' power line.
¶ Independent engineers have been hired to study the problems. The system was to begin partial operation in 1984.

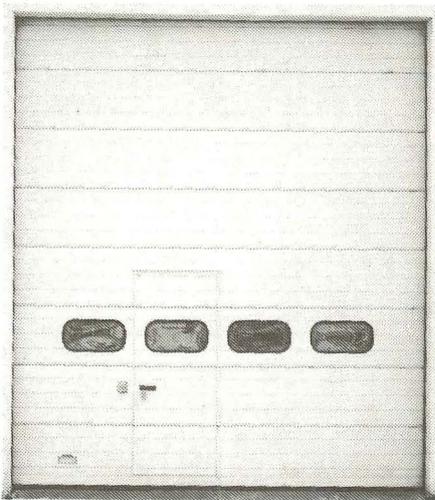
Brightening up the Bronx
Derelict buildings along the Cross Bronx Expressway will soon sport vinyl decals depicting curtains, shutters, and flowerpots.
¶ The image upgrade, financed by a Federal grant, is designed to discourage vandalism and improve neighborhood morale pending real repairs.

A hot number
The current 50s issue of *Arts and Architecture* sports articles on the Eames House, LA coffee shops, furniture, etc. in a snappy 50s-inspired graphic format.

Do you do solar?
Brookhaven National Laboratory L.I., will develop an international showcase of "affordable, energy-efficient" houses.
¶ The new houses will be tested by DOE, but all costs are to be borne by sponsor nations including Japan, Sweden, and Denmark.
¶ The project's hidden agenda: a growing interest among foreign companies in exporting houses to the U.S.

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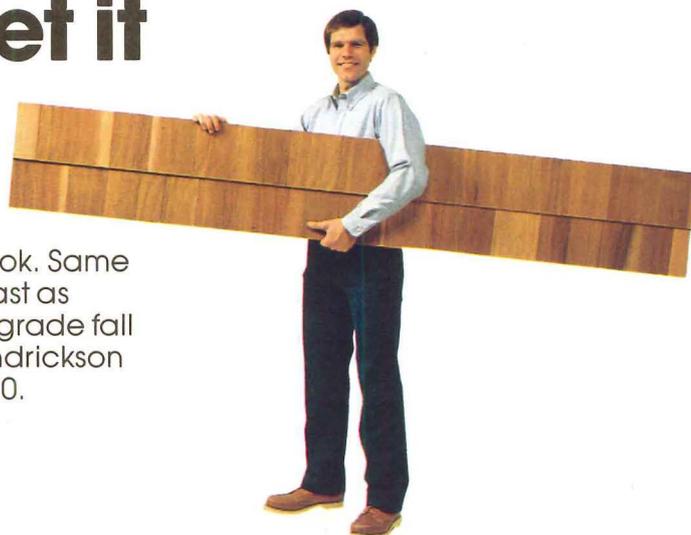
THE LAKE APARTMENT CLUB FACILITY, CHARLOTTE, NC. ARCHITECTS: REG NARMOUR/THE ARCHITECTURAL GROUP, P.A. OWNER/DEVELOPER: FIRST PROPERTY MANAGEMENT CORP. PHOTO: RICK ALEXANDER.

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Calendar

Exhibits

Through Dec. 15. Vito Girone: The Beaux Arts Education of an Architect. Old State Capitol, Frankfort, Ky.

Through Dec. 24. Mirror—Furniture Makers Go Beyond the Looking Glass. Gallery at Workbench, New York.

Through Dec. 29. The Oeuvre of an American Arts and Crafts Workshop: The Rambusch Studios 1898–present.” Parsons School of Design Exhibition Center, New York.

Through Dec. 30. Arthur Brown, Jr.: Architectural Drawings of Ornament and Decoration. Philippe Bonnafont Gallery, San Francisco.

Through Dec. 31. Frank Lloyd Wright and the Prairie School. Cooper-Hewitt

Museum, New York; also, **through Feb. 5,** The Amsterdam School: Dutch Expressionist Architecture, 1915–1930.

Through Jan. 1. Gardens of the Gilded Age. Hudson River Museum, Yonkers, N.Y.

Through Jan. 1. Frank Lloyd Wright's Non-residential Architecture. Gund Hall Gallery, Harvard University, Cambridge, Mass.

Jan. 3–6. LeCorbusier in India, and Contemporary Architecture in India. Ball State University, Muncie, Ind.; also,

Jan. 9–27, Manhattan en Trompe L'oeil. **Through Jan. 8.** Design Since 1945. Philadelphia Museum of Art.

Through Jan. 15. LaFayette Square 1953–1983: Historic Preservation and Modern Architecture. Renwick Gallery, Washington, D.C.; also, **through Mar. 4,** Russel Wright: American Designer.

Through Jan. 15. California Counter-

point: New West Coast Architecture. San Francisco Museum of Modern Art. **Through Jan. 16.** The Arts and Crafts Movement in New York State 1876–1916. Margaret Woodbury Strong Museum, Rochester.

Through Jan. 20. American Architecture: Innovation and Tradition. Architecture Library, University of Texas at Austin.

Through Jan. 29. Architecture on Paper. Hood Museum, Hanover, N.H.

Through Jan. 29. Cervin Robinson Photographs 1958–1983. Wellesley College Museum, Wellesley, Mass.

Through Mar. 4. Lights, Camera, Action: New York's Silent Film Studios. New York Historical Society; also,

through Mar. 11, Artists' Views of Central Park: 1814–1914.

Dec. 14–Feb. 19. Design in America: The Cranbrook Vision 1925–1950. Detroit Institute of Arts. Subsequent dates:

Apr. 18–June 17, Metropolitan Museum of Art, New York.

Competitions

Jan. 25. Registration deadline, A New American House. Contact Harvey Sherman, Minneapolis College of Art and Design, 133 East 25 St., Minneapolis, Minn. 55404 (612) 870-3238.

Jan. 26. Postmark deadline, P/A's 4th Annual International Furniture Competition. See p. 103 for information.

Jan. 31. Entry deadline, Innova, student design competition, sponsored jointly by Wilsonart and the Interior Design Educators Council. Contact Innova:

Design Challenge Competition, McKone & Company, 2700 Stemmon Tower East, Suite 800, Dallas, Texas 75207 or call toll-free 1-800-433-3222 (in Texas, 1-800-792-6000).

Jan. 31. Application deadline, National Institute for Architectural Education Traveling Fellowship in Architecture. Contact NIAE, 30 W. 22 St., New York N.Y. 10010.

Jan. 31. Entry deadline, design of the downtown waterfront area of West Palm Beach, Fla. Contact H. Kurt Kettelhu, 398 W. Camino Gardens Blvd., Plaza Suite 207A, Boca Raton, Fla. 33433 (305) 392-6674.

Feb. 1. Entry deadline, Kindergarten Chats 1984; Young Architects Forum. Contact Betsy Feeley, Architecture League (212) 753-1722.

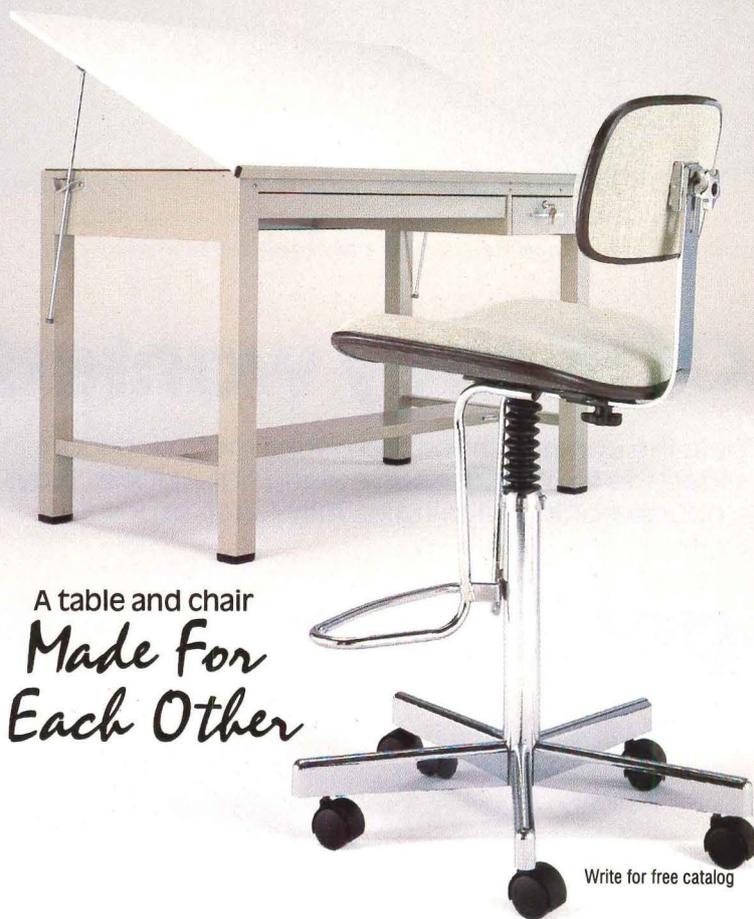
Feb. 15. Entry deadline, Colorcor "Surface & Ornament" Competition I (for completed installations or in-production designs). Contact Colorcor "Surface & Ornament" Competition Formica Corporation, One Cyanami Plaza, Wayne, N.J. 07470.

Conferences, seminars, workshops

Jan. 18–24. Bau 84, Trade Exhibition of building materials, systems, and renovation, Munich, West Germany. Contact Gerald G. Kallman Associates (202) 652-7070.

Jan. 19–22. Successful Rehabilitation of San Francisco. Contact National Trust for Historic Preservation (202) 671-4092. Subsequent dates: **Feb. 23–27,** Savannah, Ga.

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lites can be insulated. And the foam-filled weatherstripping virtually eliminates air infiltration.

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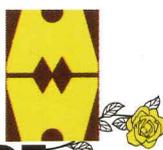
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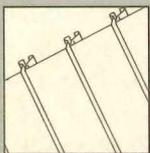
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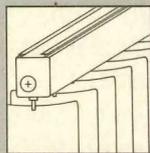


Architectural model courtesy Haines Lundberg Wae

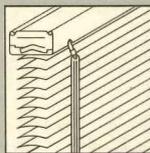
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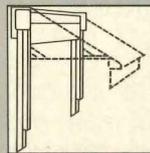
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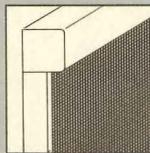
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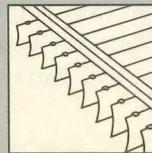
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le Menil house
East Hampton, N.Y.

Hampton house

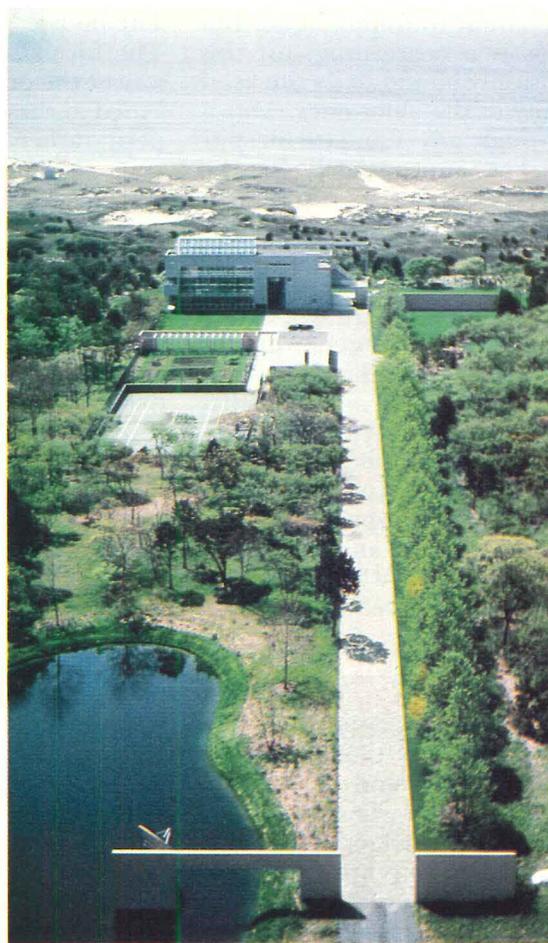
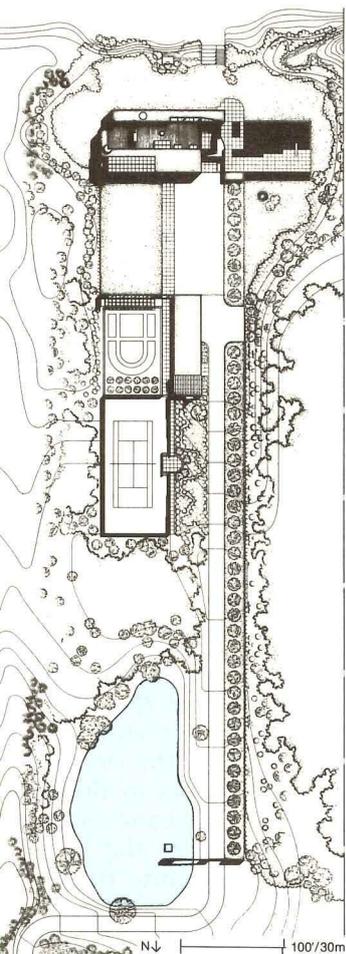
An 11,000-square-foot vacation house by Gwathmey Siegel & Associates in East Hampton, N.Y., reveals complex new developments in their work.

In that cultured playground at the eastern tip of Long Island known collectively as The Hamptons, a new house by a well-known architecture firm is as closely watched as the latest art movements or trends in literature. When the house is as large and as prominently sited as the new one by Gwathmey Siegel & Associates, and is part of an important body of work already well represented in the area, it is guaranteed to elicit considerable comment both from the local citizenry and from the architectural community. The former, whose numbers swell during summer

What seemed to preoccupy those at the discussion the most was a part of the house the public never sees—the three-story greenhouse at its north entry side, which is contained within the main body of the building. This element and the complex system of brise-soleil across the front of the house, which incorporates porches, terraces, some rooms, and a high loggia, are the building's most predominant features. But it was the greenhouse that caused the most interest. It was seen as a conceit (the idea of a beach house having such a large structure for tropical flora in the northeast!), as a fragment of other (namely industrial) building types, and most important, as a historical reference, not so much because of the association of the greenhouse with the past century, but because of this one's gabled roof. Does that, it was wondered, mean that Gwathmey Siegel are departing from their long-held line of Corbusian Modernism and its dictum of the flat roof? Are they allowing Post-Modernism to creep in here? They are, in fact, using the pitched roof in another new project (the Westport Library in Connecticut), but insofar as it concerns this house, Charles Gwathmey answers simply, "It's an easy way to span that space."

This does not mean, though, that the house is devoid of historical reference. Certainly, it conjures images of the ocean liner as consciously as did the work of the earlier practitioners of International Modernism. The decked porches and rooftop, the latter with its smokestacks and sections detailed as a ship's bridge, the pipe railings inside and out, metal ladders, narrow passageways, and even portholes make this reading obvious. But the idea is carried even further. The volume of the two-storied living room, Charles Gwathmey says, "is intended to describe and recall the major parlor or lounge space of an ocean liner."

In addition, the architects explain that "There is a recall to the early dune houses of Southampton and East Hampton; edifices that were of a magnitude to anchor their sites; houses that were major in their volumetric intentions and that were of a scale and presence that allowed them to coexist with the ocean and dunes." Those natural elements are, of course, of great magnitude and form the only context for this house,



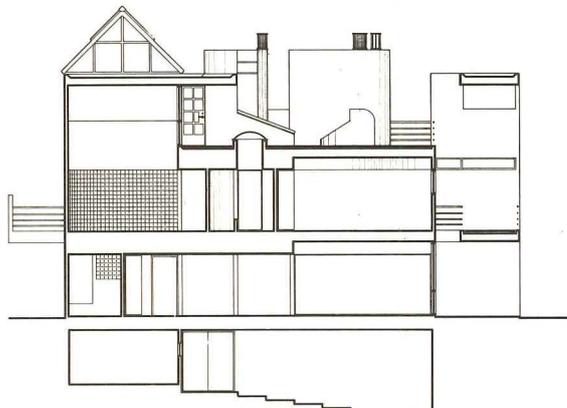
Norman McGrath

The vacation house for Francois le Menil in East Hampton, N.Y., occupies a deep, narrow six-acre site running from the woods at the north to the dune, where the house faces the ocean, at the south. Both the house and site are layered, but in directions perpendicular to each other.

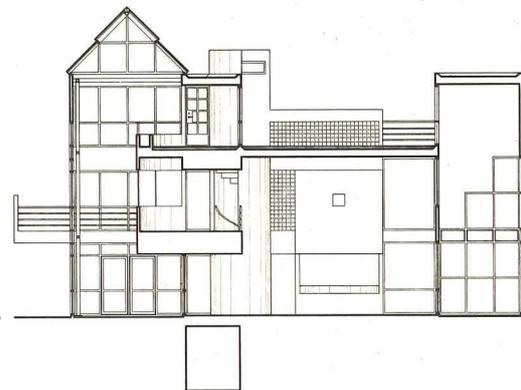
weekends, have been privileged to see only the side of the house facing the ocean. The latter, who, if they haven't seen the house have carefully studied the drawings, gathered for two evenings at the Institute for Architecture and Urban Studies in New York early this year, where the 1982 P/A Award-winning house was the subject of an exhibition, a presentation by the designers, and a discussion by a panel of noted critics.

de Menil house

Certain architectural elements along the entry drive, such as the pink gate (top) and smokestack (middle), are recalled later by other polychrome forms inside the house. An aerial view (bottom) shows how the long site, zoned in one direction, is modulated by elements perpendicular to it.



SECTION THROUGH THEATER, LIBRARY & GALLERY



SECTION THROUGH GREENHOUSE, LIVING ROOM & SCREEN PORCH



Photos: Norman McGrath

since there is nothing else near it. However, while this 11,000-square-foot house is larger than most of the older ones, but certainly smaller than some, it does differ from them in terms of its greater scale. The older houses, usually of shingle or clapboard exterior in a somewhat classical or picturesque style, with pitched roofs and rambling porches surrounded by shrubbery, make a very natural transition from building to ground. This house, on the other hand, presents as its public side facing the ocean a three-story-high, rectangular, large-scale abstract composition that meets the ground with a pristine clarity that shows no apparent transition at all. But in one sense, this is a misreading, for this house is as intrinsically bound to its site as, if not more than, any of the older ones. This is not achieved through any standard or picturesque means, but, appropriately for the deep and narrow six-acre site, through a carefully worked out, orthogonally organized linear scheme in which the house is the main player, and where precedent, procession, and recall play major roles. If this house marks a turning point in Gwathmey Siegel's work, as many have suggested, that change is evidenced not in a turn toward anything that could be seen as Post-Modernist but, to begin with, in the intensity of the relationship between the house and its site. In that respect, this house represents the opposite pole of Gwathmey's parents' house and studio of 1966 in Amagansett, N.Y., which are self-contained sculptural objects freestanding on a clean ground plane.

The site

The deep, rectangular site is dominated by a long cobblestone entry drive that runs from the woods at the northern end to the auto court near the southern end where the house commands the dune overlooking the ocean. Along the drive, certain polychromed architectural events, which will be recalled later inside the house, mark the procession. This series, perpendicular to the drive, begins with the pink stucco, freestanding entry gate, which stands partially in a pond, and from which a controlled view reveals only the monumental loggia (an extension of the brise-soleil) of the house at the end of the entry axis. One next passes the servants' quarters/garage building, whose north wall is marked by a freestanding, pink cylindrical exhaust stack. The full view of the house is not revealed until one is in the auto court.

This private outdoor space is formed by the house itself, the pink stucco pool wall extending to the west of the house, the north end of the garage, and the pink arbor extending from it to the east. The site is layered lengthwise from east to west in zones that include a formal row of linden trees, the vehicular circulation and loggia, the pedestrian circulation, and the last zone of lawn, formal garden, and tennis courts. The elements that will be recalled in the house are perpendicular to the site zoning, but parallel to the house.

The house

The formal entrance to the house is not by way of the great loggia, as the prospect established at the entry gate might lead one to expect; rather, it is through a two-story-high void in the solid, western portion of the north façade, which is juxtaposed to the transparency of the three-story-high greenhouse occupying the eastern portion. Pushing outward but within that volume, which is the largest room in the house, is a second-level study that is solid but with ribbon windows curved and supported by pipe columns. In the entry, a curved cedar and glass block wall recedes to form part of a vestibule. The contrast between the solid form of the study, pushing into the volume of the greenhouse, and the entry void receding into the solid mass of the house is quite dynamic; inside, though, things are calmer.

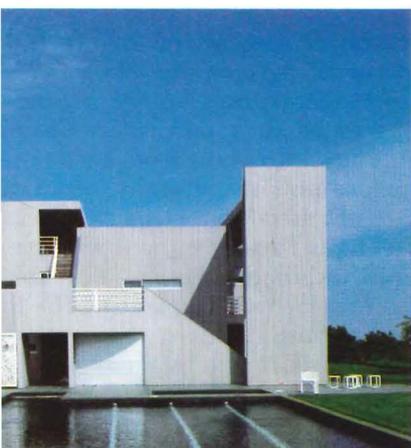
On the inside, the house is organized into four vertical zones that progress from north to south, perpendicular to the entry axis and to the overall organization of the site. The zones begin with that of the greenhouse and guest room, then proceed to the circulation to the living zone, and finally to the brise-soleil facing the ocean. The concept of the parallel zones is important to the body of Gwathmey Siegel's work because the zones along with the building's relationship to its site, constitute two of the major changes this house seems to show in their work. The earlier houses, in contrast, were predominantly vertically organized, with floors and ceilings rather than walls describing spaces, and with resulting buildings that were intensely cubic with façades that were specific and descriptive of the interior.

The main entry at the north side of the house (below) is dramatized by the tension set up between the two-story entry void that recedes into the solid mass of the house and the three-story greenhouse, in which the solid object of the second-level study pushes into the transparent volume. The pool, at the west side of the house (bottom left), is accessible from both levels of the house as well as from the roof deck.

At the south side of the house, facing the ocean, a thick layer of brise-soleil (bottom, middle) contains porches, parts of rooms, and outdoor decks. Erosions at the east side (bottom right) also form terraces and decks.



Roberto Schezen



Roberto Schezen



Norman McGrath

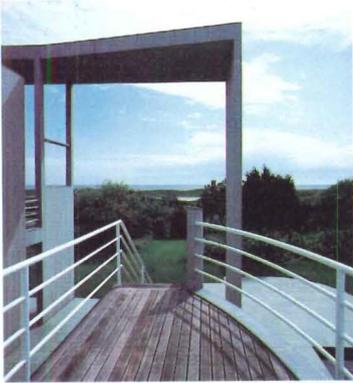


Norman McGrath

de Menil house

The system of outdoor roof decks is extensive; the one at the second level (below) extends from the roof deck (bottom), which is at the third level and is "bracketed" by the greenhouse at the north and the brise-soleil at the south (as shown in the axonometric, below).

On the roof deck, elements such as the chimney recall other architectural elements in the landscape. The brise-soleil (below middle, and facing page) ends at the west side of the house in a three-story-high open loggia (below left, and axonometric).



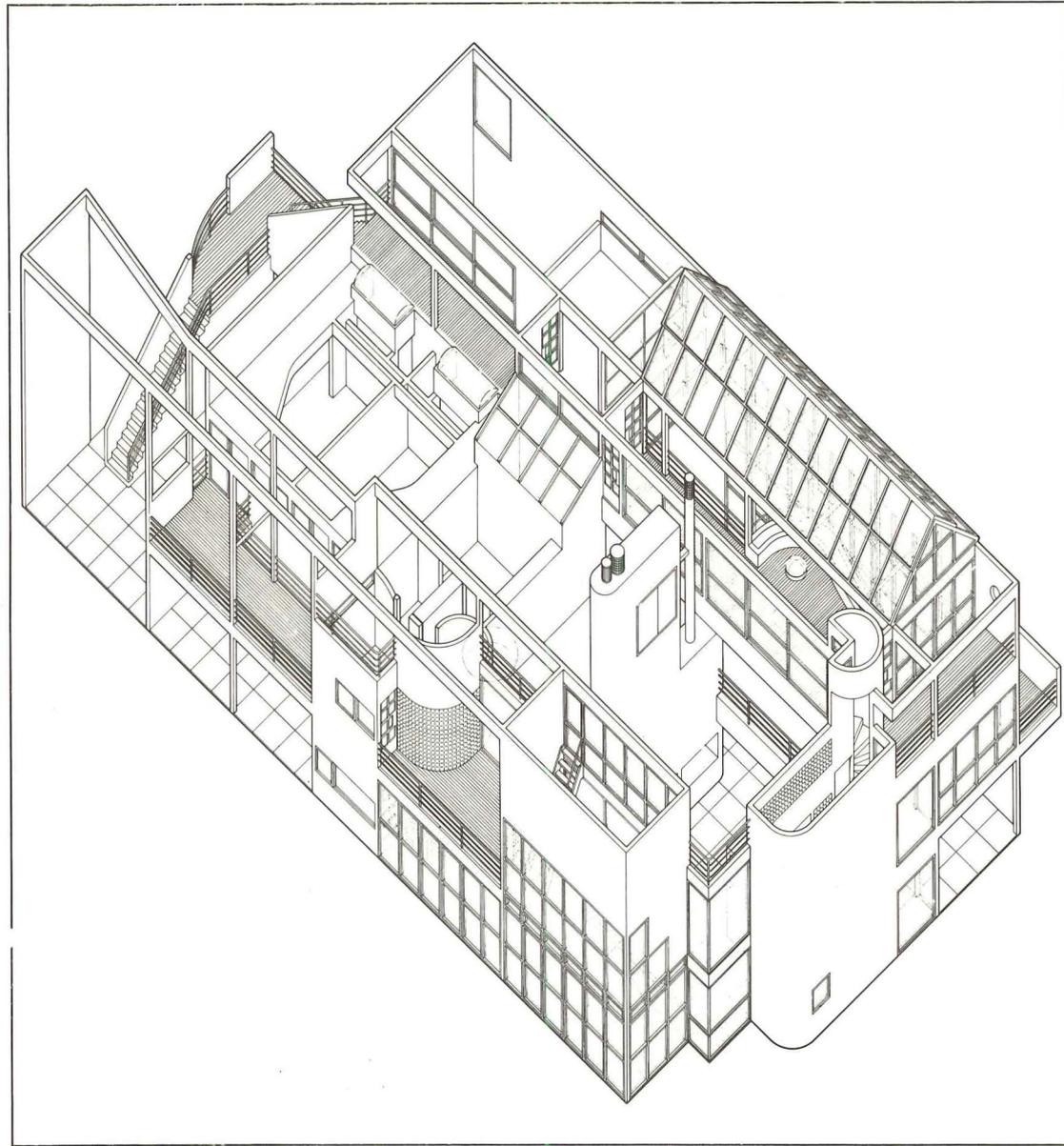
Roberto Schezen



Norman McGrath



Norman McGrath



Because of the linear system of four parallel zones in this house, which place the primary living spaces within the inner zones, the exterior cannot be as descriptive of interior functions as the earlier houses. But in addition to that, the zones, while still allowing vertical interior organization, do, by their parallel and linear deployment, permit less freedom in that respect than was allowed in the houses of more unitary volume. As a consequence, this house becomes controlled by an orthogonal grid that pervades both horizontally and vertically within the volume. It is not a system conducive to making discrete spaces, nor was it intended to be. It is a place,

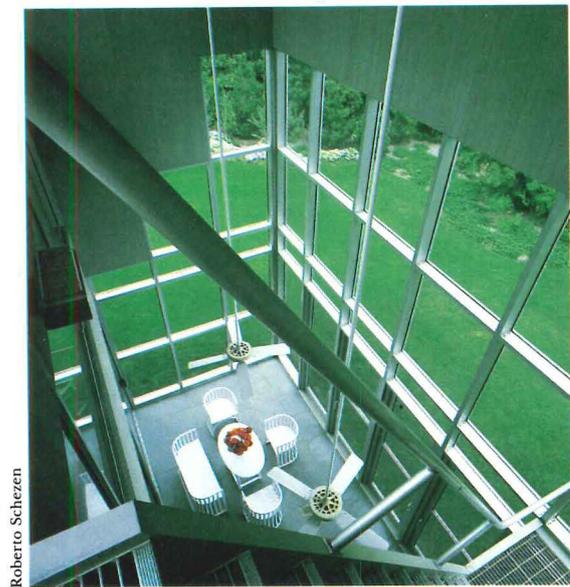
Charles Gwathmey said, where "one feels individual spaces as part of the whole." This does have some drawbacks, though, since one rarely seems to be in a particular, distinct space. Rooms flow into or off from each other without a great sense of hierarchy, often denying a sense of arrival in any specific space. And this feeling is further enhanced by certain elements within the house. The thick green stucco fireplace wall separating the living room and dining room reappears above in the master bedroom and again at the roof



While most of the furniture in the house is period Viennese Secessionist, some, such as the overstuffed pieces in the living room (top left, and facing page) are Art Deco French pieces. The house is clearly layered (see plans, below) from north to south and, like most of the firm's residential work, exterior materials are brought inside, as shown in the living room and porch off it (bottom left).



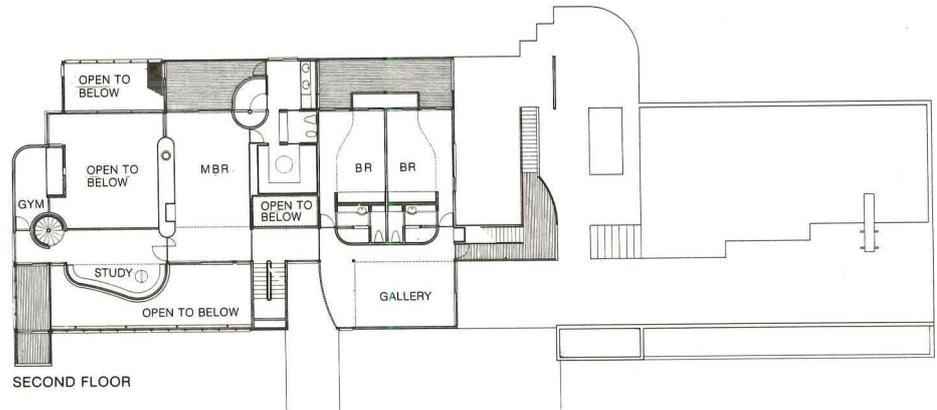
Norman McGrath



Roberto Schezen



THIRD FLOOR



SECOND FLOOR



GROUND FLOOR

deck, along with a pink chimney and other elements treated as sculptural objects. These and the pastel elements outside establish an inside/outside communication that diminishes one's sense of location in a particular place.

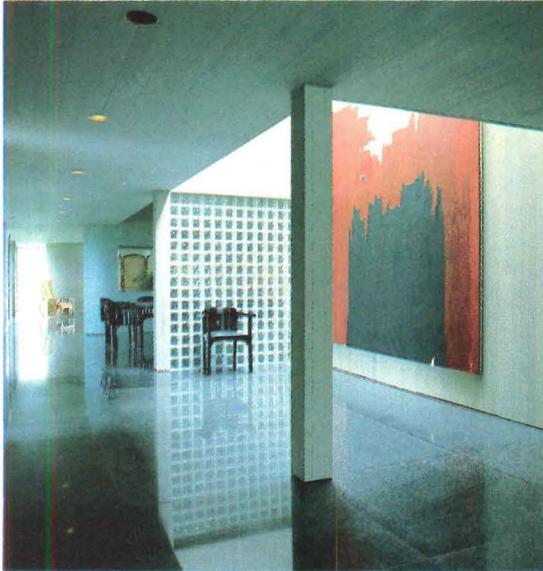
The house, then, is a gridded matrix that relates directly to the grid of the site. Both the interior and exterior display elements that are cross referential. Nature is brought into the house in the form of the greenhouse, and conversely, order is extended from it in the system of site organization; even the footprint of the swimming pool mirrors that of the house.

At the system of brise-soleil across the front of the house, which rises to the same three-story height as the greenhouse roof to bracket the lower roof deck, the concept of the matrix finds its purest expression. Here, the gridded vertical system provides little description of the functions behind it and thus also operates, to some extent, as a screen in the sense of concealing, or at least in not revealing.

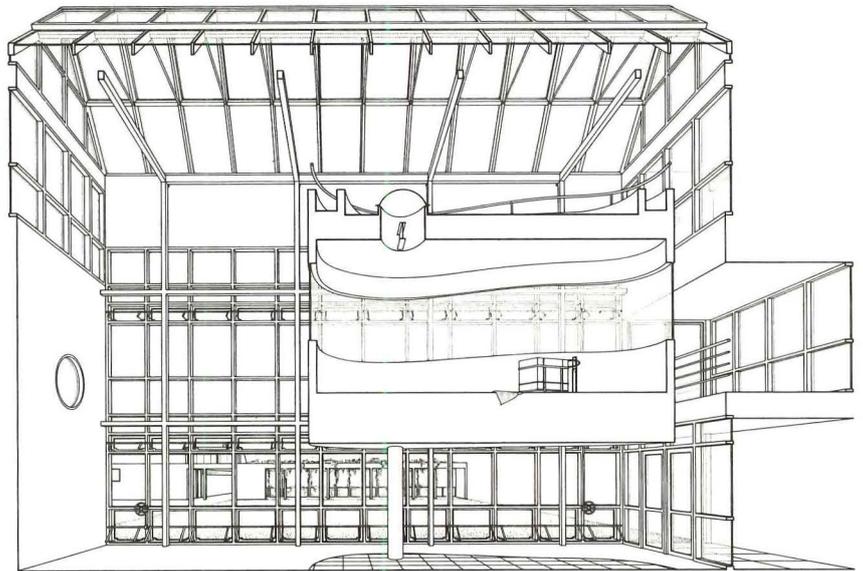
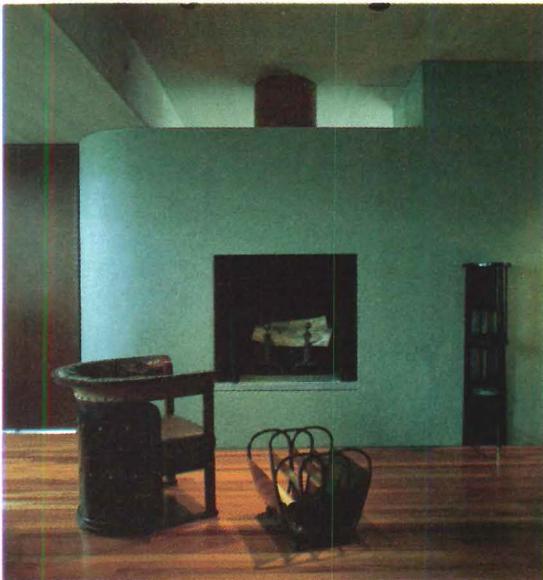
Another major change in this house is seen in a diminished use of the architects' specially designed built-in furniture, which has added a secondary architectural system to their past



Glass block is used outside as well as inside, as seen in the main entry hall near the dining room (far left) and in the second-floor gallery above the main entry (left). The fireplace wall in the master bedroom (bottom left) is an extension of the one below that separates living and dining rooms. The study extending into the greenhouse (facing page) is a second level, but it has a third-level balcony that leads out to the roof terrace.



Photos: Roberto Scherzen



GREENHOUSE, CUTAWAY PERSPECTIVE, TOWARD THE NORTH

work. But in this case, the client wanted, and the architects helped him collect, period furniture of the Vienna Secession. That, however, obviously would not work with the architects' usual repertory of naturally light or light painted wood. So, the floors were changed to mahogany and polished black granite, and the casework also to mahogany. This direct response to the furniture adds a new enrichment of materials and their expression to Gwathmey Siegel's work, and it should be applauded. But there are instances throughout the house where exterior materials are, as usual, brought inside. In this case, though, the light cedar siding is somewhat in-

compatible with the deep luster of the mahogany when the two are in close proximity.

There are distinct changes going on in this house in terms of its relation to the site, its system of zones and matrices, its lack of fully expressing interior functions on the outside, and its lesser use of a secondary architectural interior system. But these changes represent new and exciting explorations that add a welcome enrichment to an established vocabulary. And the vocabulary is still Corbusian, of which Gwathmey Siegel are still the current masters. [David Morton]





Data

Project: de Menil House, East Hampton, N.Y.

Architects: Gwathmey Siegel & Associates (Bruce D. Nagel, associate architect; Daniel Rowen, project designer; Paul Aferiat, John Meder, Thomas Phifer, David Steinman, project team).

Site: six acres facing the Atlantic Ocean.

Program: a four-bedroom, four-bathroom vacation house

including a greenhouse, game room, theater, and caretaker's house.

Structural system: reinforced concrete foundation, steel frame and wood partition structure.

Major materials: 1" x 4" sawn Western Red Cedar inside and outside; floors surfaced in polished black granite, mahogany, and carpeting; red-wood decking; Vermont structural slate paving (see Building materials, p. 104).

Mechanical system: oil-fired boiler, hot-water heat, forced-air air conditioning.

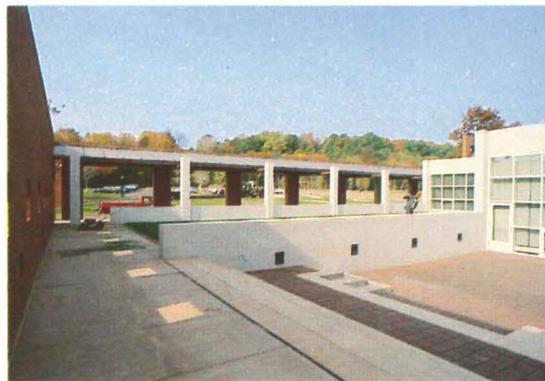
Consultants: Daniel D. Stewart, landscape; Gwathmey Siegel & Associates, interiors; Geiger Berger Associates, structural; Flack & Kurtz Consulting Engineers, mechanical; CHA Designs, Inc., lighting design.

Costs: withheld by request.





The loggias at the front corner of the building (photos left) surround two courtyards, a large grassy one outside the administrative offices, and a bricked one outside the library. On the rear of the building (right), the classrooms line up proudly on either side of the central spine, their square wood windows framing views to the playground and the magnificent mountains beyond.



Hartford Design Group

Tai Soo Kim believes in looking to history to find “the right way” to do things, and credits his first very technical architectural training in Korea (he later did graduate work at Yale) as well as his great admiration for Louis Kahn as contributing to his interest in interpreting history’s lessons in basic, abstract forms. He cares, for example, about the craftsmanship in a simple block wall, allowed to be washed by sunlight. And he shields his simple forms, allowing them to be revealed gradually: the red brick wall which screens the block building, for example, providing a loggia for the children being dropped off from the buses. Even the main mass, as he explains it, is not left perfectly blocky, but is eroded at the corners to form two adjacent courtyards, a grassy one off the office space and a paved one that extends the library.

Most of all, the building’s front looks like a very young child’s representation of a school. It has the elements: the red brick arches, the clock tower, the bell tower, and a pitched roof. The school children, in fact, love the

school and love to paint it in their art classes. But if there is a disappointment in the front façade, it is that the proportions of the brick openings are scarcely refined beyond the child’s rough representation of a grid. Rationalism, in all its simplicity, requires very careful tuning. Flaws can queer the pitch. There are problems with not only the somewhat graceless front screen, but also aspects of the interior: The acoustic tiled ceilings are distractingly textured, and the planter in the spine is too blocky. Other parts of the exterior are more successful: The white trellised arches over the kindergarten entrances, and the playful glass block insertions beside them, are fine and delicate; and most powerful are the side brick wall that stretches across and down into the sloping land, and the proud, square-windowed white rear wall with its central glazed gable. [Susan Doubilet]



Data

Project: Middlebury Elementary School, Middlebury, Conn.

Architects: Tai Soo Kim/Hartford Design Group, Hartford, Conn. (Walter Willis, project manager; Peter Chow, Richard Szczypek, Richard McClurg, Richard Reed, Richard Herzer, project team).

Client: Regional School District No. 15, Middlebury.

Site: in a suburban town, a sloping wooded site with a number of large oak and maple trees and a beautiful mountain view.

Program: to replace two existing obsolete school buildings on separate sites with one structure to meet the educational requirements of 500 pupils, from kindergarten to grade 5.

Structural system: concrete foundation, steel frame.

Major materials: red brick; ground face white concrete block

(see Building materials, p. 104).

Mechanical system: oil-fired boiler; air conditioning in office area only.

Consultants: CR 3, landscape; Burton & VanHouten Engineers, structural and mechanical; William Lam, lighting.

General contractor: Fred Brunoli & Sons, Inc.

Costs: \$3,720,000.

Photography: ©Peter Aaron/ESTO, except as noted.

Steven Rosenthal



Rise and shine

Morning television, a new sensation in England, gets an equally sensational home, with the Terry Farrell Partnership's controversial scheme.

If you can get two people to agree about any one aspect of the Terry Farrell Partnership's work, it would be that they either love it or loathe it. Why else would the British be up in arms over a television studio that cost roughly \$60 a square foot and was designed and built in 18 months? The studios and offices of TV-am (Breakfast Television), England's second-ranking morning program, have generated reams of coverage—pro and con—in the British popular and trade press this year, despite the fact that the building is tucked away in a tiny street in Camden Town, a funky but up-and-coming neighborhood in northwest London. While a good deal of controversy has centered on the show itself, the hubbub surrounding Terry Farrell's design for the studios points to the rather uneasy acceptance of Post-Modernism by the British architectural community, many of whom question its appropriateness. Indeed, in this case, what *does* become a television studio most?

The building itself was an extremely fast-track, low-cost rehab. Its site, wedged be-

tween Hawley Crescent, a narrow, curving one-way street, and Regents Canal, was occupied by an unused 1930s garage, to which had been added another piece in the 1950s. The architects removed the addition and the existing façade to make room for an entry court (site conditions dictated that the two ground-floor television studios be placed at the southern end of the site, on the street side). Farrell envisioned a three-zone scheme: the Hawley Crescent façade; the central atrium (already existing); and the Regents Canal façade.

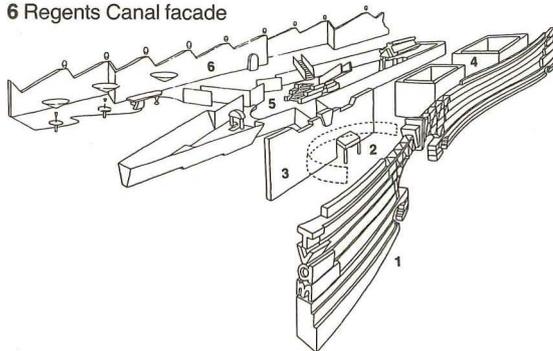
Since the building is approached obliquely from the narrow street, the architects designed a curved façade that also serves as a billboard to "advertise" TV-am (the windowless façade screens the equally windowless studios and acts as a sound barrier for them). The façade's message is, in a word, sunrise. A plinth of black-and-gray glazed block, set on a concrete foundation, acts as a "horizon line" for the 35-foot-high wall of corrugated steel cladding, set on universal steel columns and finished with a silver epoxy paint. The cladding profile gets narrower as it goes up, and is "finished" at each end of the façade by the letters TV-am, which are made of sheet aluminum and painted to match the cladding so that they appear to have been extruded from the wall. Extruded aluminum feature strips are polyester powder-coated in five shades ranging from deep red to golden yellow, echoing the sunrise logo of the program. The two portions of the façade are bridged by a diadem arch (curved in plan and elevation) whose openwork "voussoirs" culminate in a keystone of square, hollow aluminum section (to reduce both wind resistance and cost) finished in anodized silver or powder-coated blue, with a central fin of polished stainless steel. The keystone stabilizes the backward curve of the arch, and the fin is outlined with a cold-cathode ray tube, which produces a suitably dramatic effect at night. The billboard idea is reinforced by the placement of an actual billboard of mirrored panels that reflects the building from across the street.

Inside the building, a jazzy, neo-Memphis reception desk announces in no uncertain terms that the business of TV-am is show business. A corridor leads directly on axis to the center of the atrium, which is the focus of the building's interior. The existing 100' x 30' space became, at the hands of the architects, an around-the-world architectural tour the better to emphasize television's global

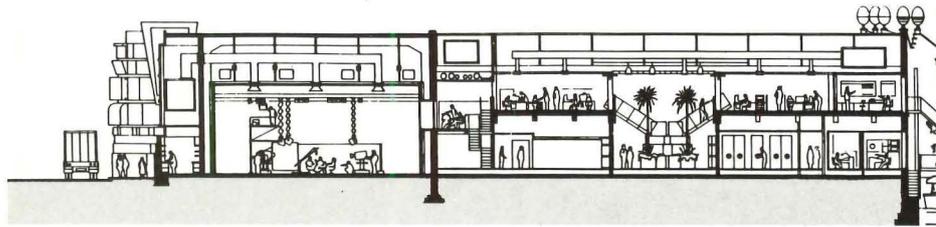
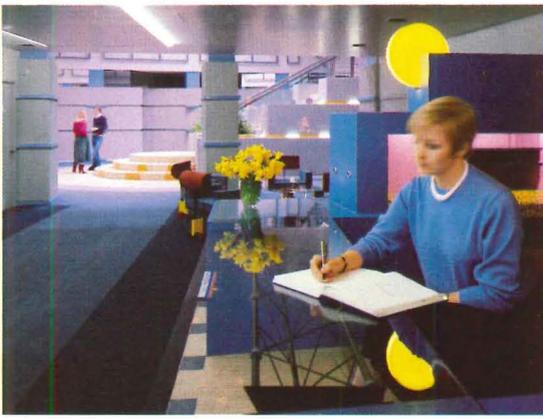
TV-am's design was seen as a three-layered scheme (below): the Hawley Crescent façade; the central atrium; and the Regents Canal façade. The two portions of the street façade (right) are bridged by a diadem arch, stabilized by a keystone, of hollow aluminum sections, whose central stainless-steel fin is illuminated at night by a cold-cathode-ray tube (facing page).



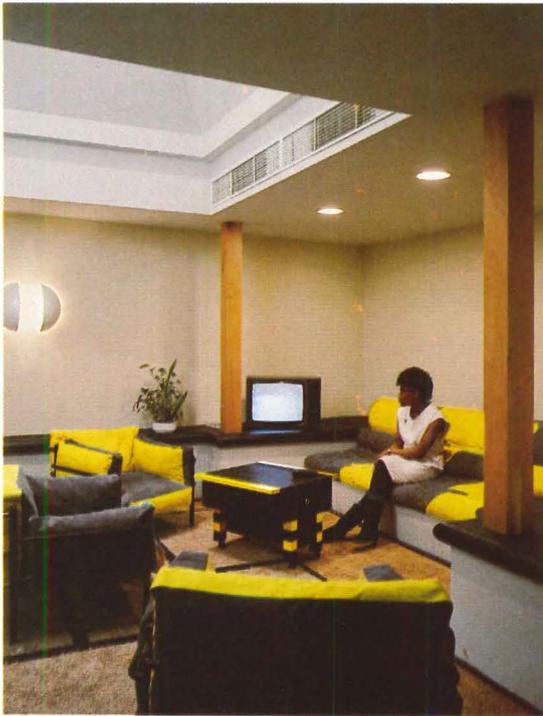
- 1 Hawley Crescent façade
- 2 Entry court
- 3 Remodeled existing façade
- 4 New television studios
- 5 Atrium
- 6 Regents Canal façade



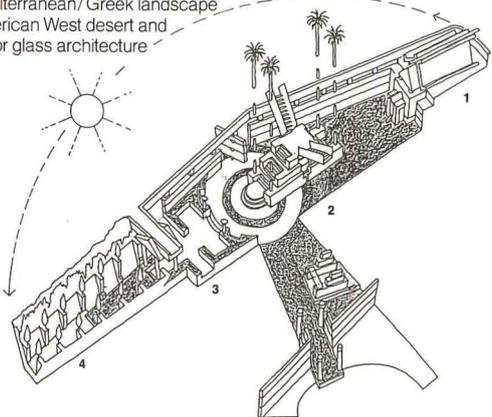




CROSS SECTION

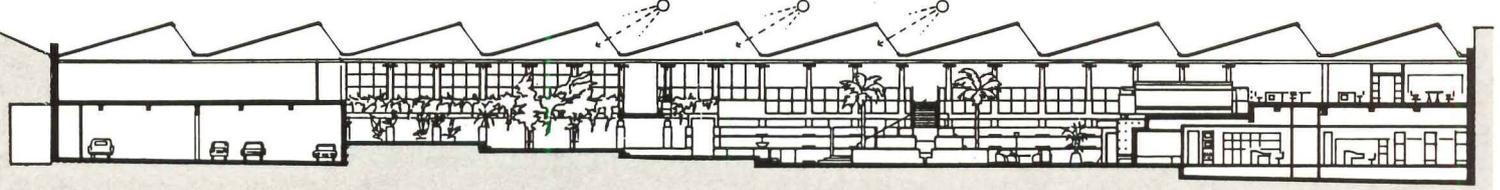


- 1 Japanese pavilion hospitality lounge
- 2 Middle Eastern/ Mesopotamian stair
- 3 Mediterranean/ Greek landscape
- 4 American West desert and mirror glass architecture



Inside the studios, the reception area (facing page, top) owes much to Milan's Memphis group; it leads to the central atrium (large photo), whose "Mesopotamian" stair is the

focus of the space. Architectural quotes circle the globe and span history (schematic, facing page); a Japanese pavilion (facing page, bottom photos) serves as a hospitality lounge.



LONGITUDINAL SECTION

30' / 10m



On the Regents Canal façade (below and facing page), the existing building's sawtooth roofline was given a stepped profile. Bright paint colors, railings, new windows, and the famous egg-in-eggcup finials helped transform the old garage building into the architectural superstar of Camden Town. The "industrial Palladian" motif of the façade (facing page) adds considerable brightness and a touch of grandeur to its surroundings. A mirrored billboard (overleaf) was built to reflect the Hawley Crescent façade, itself a "billboard" for TV-am.

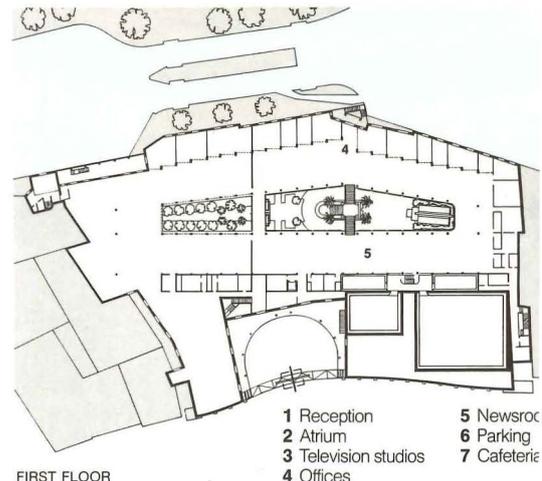
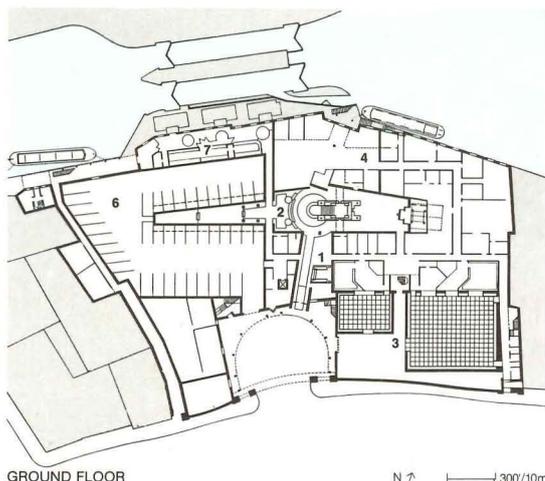
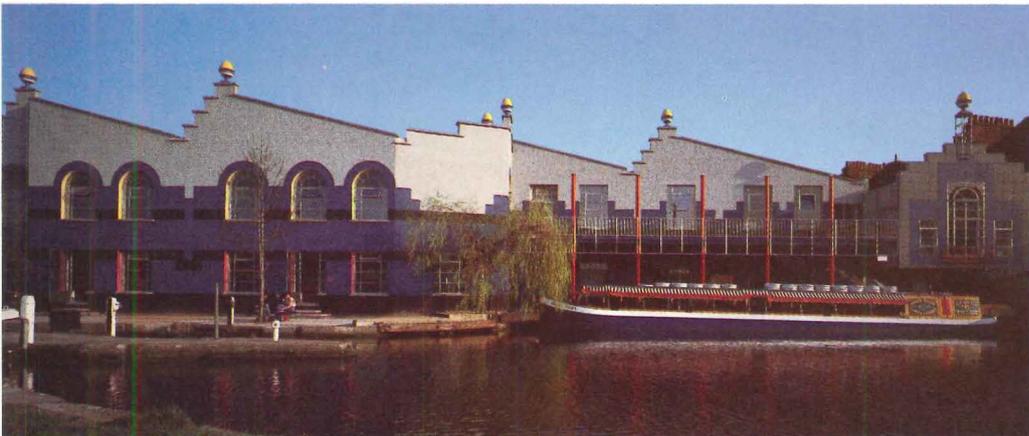
reach. The dramatic central stair was made to be the first thing you see, as the atrium is really a circulation space for people on their way through to the sales offices or up to the newsroom and editorial/production offices. The stair, which is both a Mesopotamian ziggurat and an island in a sea of blue carpet (hence the palm trees)—and which has reminded more than one British critic of Busby Berkeley movies—lies roughly midway between the Far East (a Japanese pavilion hospitality lounge) and the Far West (a cactus garden and a wall of Dallas skyscraper mirrored glass), with a Greek gateway, executed in the "Ironic Ionic" order, added for good measure. The "horizon line" of the exterior plinth is picked up in the atrium walls. Plenty of the aforementioned exotic plants, Memphis-style furniture, and lots of New Wave faux finishes make the atrium both a dazzling design statement (perhaps "proclamation" is a better word), and a perfect alternate stage set for TV-am productions—which it has been.

The upper floors house the newsroom and

production offices, as well as editorial and executive offices, which are located along the canal side of the building. Double-scored columns are structural, while the single-scored versions support the dual-scaled ceiling grid. The column capitals were made in the Farrell Partnership's offices; multicolored paint flakes were sprayed onto the still-wet columns, which were then sanded and lacquered.

On the canal side, the architects took a standard industrial building with a sawtoothed roofline (adding steps to the teeth) and transformed it by way of balconies, bright paint colors, and the now-famous finials that represent—what else?—eggs in egg cups, play on 18th-Century pineapple and acorn finials. These, too, had to be made in the architects' offices, as no local fabricator considered them to be the work of a "sane" designer. In fact, they have a zany elegance lending a festive air to an otherwise ho-hum canalscape.

In this project, as in others (such as the Thames waterworks and the Clifton Nurseries), Farrell, England's leading proponent of Post-Modernism, demonstrates his knack for using high-tech materials in an apt and light-hearted manner. The street façade is Classicism squeezed from a tube; the industrial grid ceilings clash unexpectedly in scale; and the factory-Palladian windows of the canal façade illustrate Farrell's talent for having a good time without either breaking the client's bank or having to apologize for not being able to use travertine and bronze. English critics have alternately branded the project "lavish" and "cardboard": at £40 per square foot, it can hardly be called lavish; and this is one case where "cardboard" is a misplaced criticism.





Data

Project: TV-am (Breakfast Television Centre), London.

Architect: Terry Farrell Partnership, London (Project team: Neil Bennett, John Chatwin, Craig Downie, Terry Farrell, Joe Foges, Michael Glass, Peter Jenkins, John Letherland, Caroline Lwin, Alan Morris, Satish Patel, Doug Smith, Simon Sturgis, Clive Wilkinson).

Site: an existing 65,000-sq-ft 1930s garage, with 1950s addition.

Program: reception and hospitality areas; two television studios; control rooms; technical facilities; office space for 350 employees; cafeteria; canalside house; and parking, totaling approximately 100,000 sq ft.

Structural system: existing concrete structure with exposed steel monitor roof; steel portal framing in studios.

Mechanical system: central gas boiler with roof-mounted cooling towers; fully air-conditioned studios; partial natural (summer) ventilation in offices.

Consultants: Peter Brett Associates, structural; Sandy Brown Associates, mechanical/electrical, acoustical, and studio

design; Gleeds, cost consultant for client.

General contractor: Wiltshier (London) Ltd.; Wiltshier (Management) Ltd., management.

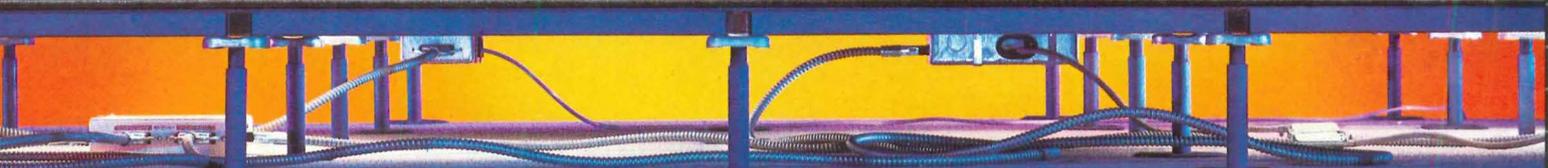
Cost: £5 million; £40 per sq ft.
Photography: Richard Bryant.



cism. For what better spot for a stage set than a TV studio? Granted, there is more fashion inside this building than there is in the average department store, but in the entertainment field, fashion is the nature of the beast. And the seemingly schizophrenic difference between the two façades is, in this case, perfectly justified: each addresses its own (vastly different) context with grace and wit.

One of the frequent and ironic failings of Post-Modernism is that it too often opts for the arcane literary or historical allusion in an

attempt to counter the muteness of Modernism. The Farrell Partnership, in the TV-am project, has wisely taken its cues from the medium it was asked to house, and has invested the building with a clearly visual appeal; that alone is worth quite a few points in the architectural ratings game. [Pilar Viladas]



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Project:	Executive Office Complex, Sausalito, CA
Owner:	Marin Executive Park Partnership, Sausalito, CA
Architect:	Raiser Architectural Group, San Mateo, CA
General Contractor:	Raiser Construction Company



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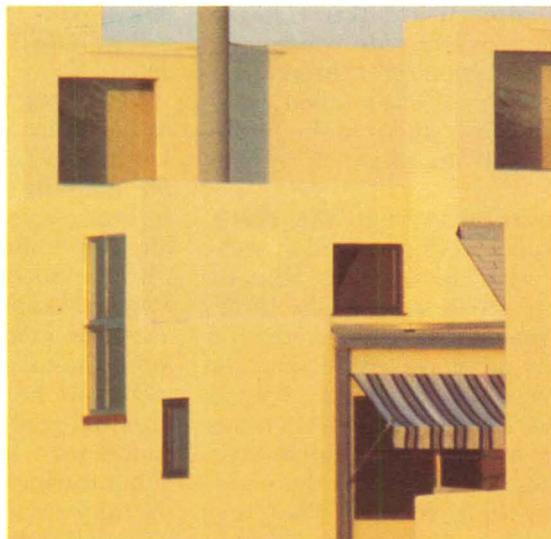
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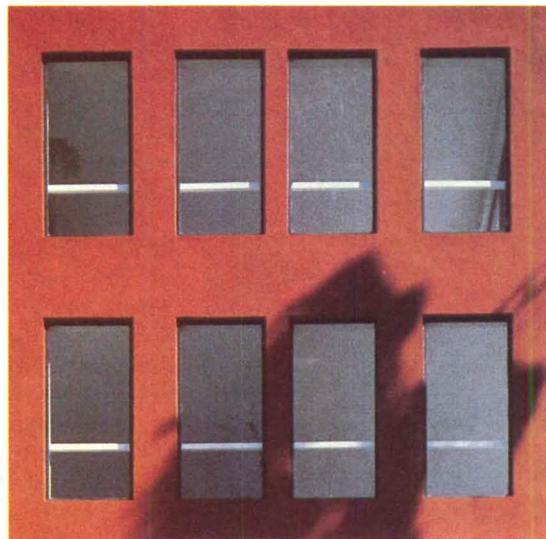
Technics:
Acrylic stucco

It looks like stucco...

It won't crack. It won't
peel. It's all you could want
from stucco except that
it's acrylic, fiberglass,
and expanded polystyrene.

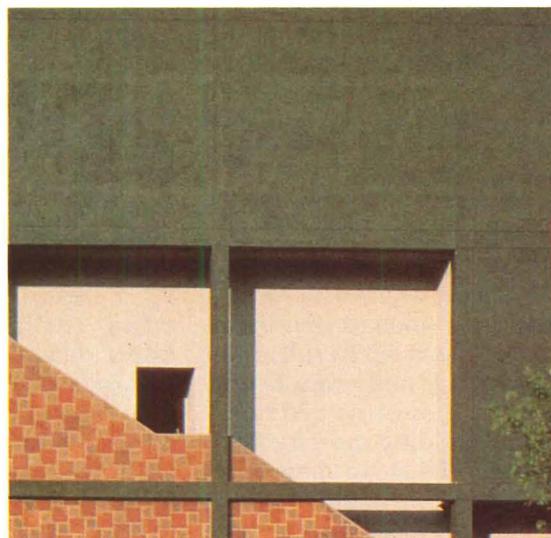


Rob Quigley



Norman McGrath

Stucco finishes need not be bor-
ing. Architects such as Rob Quig-
ley in his Pacific Townhomes
(top left), Arquitectonica in their
project The Babylon (top right),
Taft Architects in their Hendley
Building (bottom left), and A De-
sign Group in their 831 Pacific
Street Condominium (bottom
right) all use stucco to create
surfaces of strong color or to unify
visually active forms.



Taft Architects



Zimbaldi

In their 1932 book *The International Style*, Henry-Russell Hitchcock and Philip Johnson praise stucco's "aesthetic advantage of forming a continuous, even covering" even though they admit that stucco presents problems with its "cracking and streaking." They end their section on stucco with a wish: "A material like stucco but elastic and with a wide color range, which could be laid over various bases, would be ideal."

Fifty years later, fiberglass and acrylic have made that wish come true. Traditional cement stucco has become more elastic with fiberglass and acrylic additives, while a whole range of stuccolike acrylic finishes now on the market can do everything from supporting dry-stack masonry to forming continuous, joint-free surfaces that come in almost any

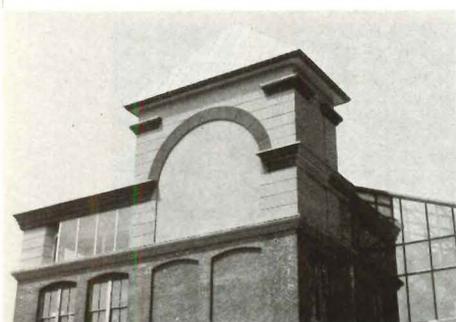
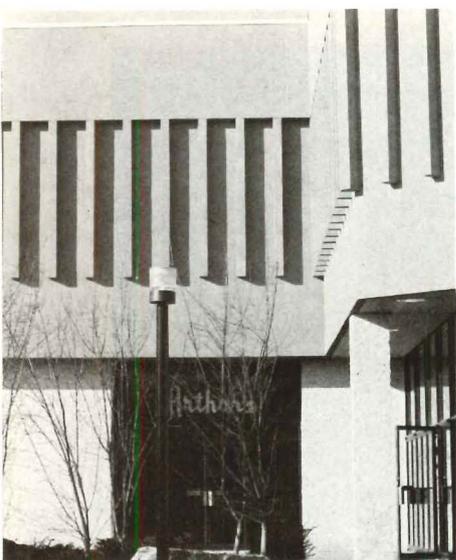
color and that adhere to almost any surface including exterior rigid insulation. Those synthetic coatings have their limitations, but their flexibility and low installed cost promise to make stucco the finish Hitchcock and Johnson hoped it could become in 1932: "ubiquitous."

Traditional stucco

Stucco, of course, has been ubiquitous in certain countries and at certain times in history. It has long protected sun-dried masonry in hot climates. And it has served decoratively as a base for Egyptian wall paintings, as molded ornament for the Greeks and Romans, and as

**Technics:
Acrylic stucco**

The ease of cutting polystyrene insulation allows exterior insulation systems to take almost any form (bottom). Those forms range from the abstract, repetitive ribbing on this Conn. department store (top) to the molded, dented cornices on Providence's Davol Square by Beckman, Blydenburgh and Associates (middle).



Beckman, Blydenburgh & Associates

imitation stone since the Renaissance. Through the end of the 19th Century, stucco remained a mix of lime and sand, with chopped hemp or animal hair as a binder and seashells or crushed stone as aggregate. That composition, though, had little water or crack resistance.

The introduction of hydraulic and then Portland cement in the mid-to-late 19th Century made stucco harder and more durable, while the introduction of wood and then wire lath in the 19th and early 20th Centuries reduced its tendency to crack. Stucco's troubles, however, did not end there. As John Boland of the Chicago Plastering Institute recalls, "many plasterers, after World War I, began using a magnesium oxychloride cement intended as floor underlayment for the exterior of buildings. The material often failed, leading to a prejudice against stucco in the North and to a myth that all stucco cracks in cold weather."

From the Depression through the 1960s, little traditional stucco work occurred in areas of the country with subfreezing winters. Then, in the early 1970s two, maybe three, factors changed that. First, the preservation movement brought an increased demand for new methods of repairing lime and Portland cement stucco. Second, architectural tastes changed, with a revival in International Style aesthetics, spurring new interest in the material. Third, stucco itself changed. Plasterers began adding acrylics to increase stucco's compressive strength and bonding capabilities, and glass fibers to increase its tensile strength and impact resistance. That, along with other additives, so improved stucco's durability that industry analysts now estimate its use to have grown to about 400 million surface square feet per year.

Repairing stucco

Acrylics and fiberglass have certainly eased the repair of older stucco, which usually fails when its surface cracks or when its keys break and the material separates from its substrate. When repairing stucco, it is important first to remedy any external causes of its deterioration, such as excessive building movement or internal water leakage. Then, to determine the scope of the damage—through visual inspection or by tapping for loose stucco—and to determine the composition of the original material: soft, lime stucco has a white matrix that dissolves in water while cement stucco has a hard, usually gray matrix. (The new stucco should be softer than the original, since a harder material will lead to cracking because of a lower rate of expansion and contraction.) Finally, insure an adequate bond for the new stucco by undercutting the edges of the older material, by raking out and cleaning the mortar joints or, if the substrate is too powdery, by attaching expanded metal lath.

Over hairline cracks, a stucco wash with one part acrylic to one part water increases the finish coat's elasticity and bonding capa-



bility. With cracks over one-quarter inch in width, imbed fiberglass fabric into the finish coat.

Repairing stucco that has separated from its substrate poses more of a challenge. At Wesleyan University's Alsop House (above) the building's lime stucco had separated in several places from the brick bearing wall. Morgan Phillips, an architectural conservator with the Society for the Preservation of New England Antiquities, recommended injecting an acrylic emulsion bonding agent behind the loose stucco and pressing it back into place, a technique he has used in the readhesion of interior plaster. Architect Jared Edwards, concerned about the stucco's crumbling either during or after its readhesion, followed the more conservative route of having the loose stucco removed and two coats of a compatible new stucco (consisting of one part lime, one part white cement, and five parts red and gray sand to match the original stucco's color) patched in. Edwards did, however, use an acrylic additive to improve the bonding of a thin stucco finish coat.

Structural and insulating stucco

Acrylics and glass fibers have also broadened the use of new stucco. A few companies market a surface-bonding stucco, containing cement, acrylic adhesives and chopped glass fibers, that can give structural integrity to two stories of dry-stack masonry when applied to both sides of a wall. Surface bonding cements have a limited color range and require special block to accommodate standard openings, but they have proven, since the early 1970s, to be a remarkably low-cost and efficient way of supporting and finishing a masonry wall.

A product one company has recently introduced in this country is insulating stucco. It contains chopped glass fibers for tensile strength and polystyrene beads as aggregate, resulting in a product one-sixth the weight of cement stucco and considerably higher R-value (R-2 per inch). Insulating stucco can go on as thick as six inches, and it adheres through the use of acrylic additives, to almost any substrate.

Exterior insulation and finish systems

Insulating stucco mixes polystyrene and glass fibers into the coating itself. The 15 or so exterior insulation and finish systems now on the market use the same materials in a very different way, separating the acrylic coating from the fiberglass reinforcement and the polysty-

ene insulation into layers. For a given k-value, that provides a thinner, lighter wall.

Exterior insulation and finish systems had their initial development in Germany after World War II. Needing a quickly installed material that could clad exposed masonry walls, the Germans devised a system that had a bottom layer of expanded polystyrene both to insulate the wall and to absorb any building movement or accommodate any surface unevenness. Over that, they applied a base coat containing alkali-resistant fiberglass fabric to give the system impact resistance, and over that, a finish coat that, like the base coat, contained either 100 percent acrylic resin or a mix of acrylics and cement. That finish coat gave the system elasticity and durability.

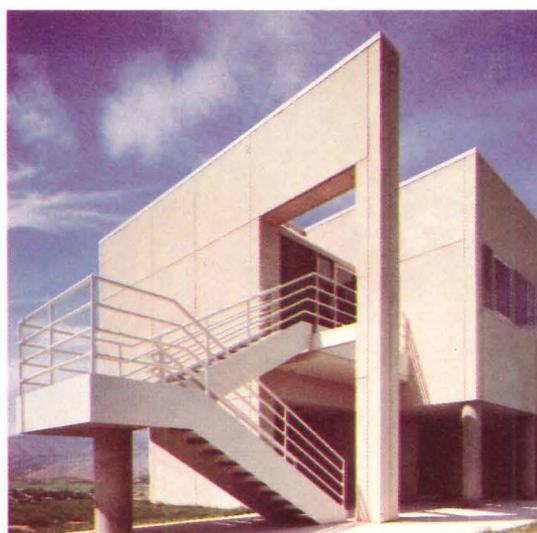
Exterior insulation systems gained widespread use in Europe, in both new construction and rehabilitation, throughout the 1950s and 1960s. They were introduced in this country in the late 1960s, although it was not until around 1975 that they began to gain considerable ground in the exterior coating market. Why the introduction and acceptance of exterior insulation systems here lagged so far behind that of Europe has no single answer. Some claim it took rising energy and materials prices to fuel enough demand; others point to technical constraints in adapting the systems to the light framing and extreme climates in the U.S. Whatever the reason, the systems have done very well in this country since 1975. Industry analyst Bill Ducker estimates the current exterior insulation market to be about 50 to 60 million surface square feet per year and expects it to reach about 100 million square feet by 1990. Between 70 and 75 million square feet of that will be in new construction, a figure that accounts for about 15 to 20 percent of expected new construction cladding. Ducker also sees a consistent growth in residential construction, especially in northern areas where the systems are sometimes less expensive than the traditional three coats of stucco.

Advantages

Growth rests upon several distinct advantages. Exterior insulation systems offer a low-maintenance, lightweight, elastic skin that can take almost any shape or color. By wrapping the exterior of a building in insulation, these systems minimize thermal stress in the structure, thermal breaks in the wall (in an insulated frame building, 35 percent of the total wall's heat loss occurs through the framing), and air infiltration through surface cracks. They can provide enough thermal lag in hot climates to prevent overheating of the interior during the day. And in cold climates, especially if the wall cavity remains uninsulated, they move the dew point outside of the wall proper, minimizing the potential damage of condensation. While still more expensive than three-coat stucco in many parts of the country, exterior insulation systems have a significantly lower installed cost than most masonry skins.

Coatings

There are two basic types of exterior insulation systems: hard and soft coat. Hard coat systems have an acrylic-modified cement base and finish coat that comes to the site dry and is mixed with water just prior to application; soft coat systems may have a small amount of cement in their base coat as filler, but acrylic copolymer resins comprise most of their base coat and all of their finish coat. The polymer coatings come to the site wet and ready to use. Because of their high cement content, hard coat systems are, like stucco, more brittle and prone to cracking unless control joints are



Hedrich Blessing



Dick Kent

provided every 100 to 144 surface square feet. Hard coat systems, though, have a greater resistance to impact and puncture damage. The soft coat systems have greater elasticity, eliminating the need for control joints, but their lack of cement makes them more susceptible to damage.

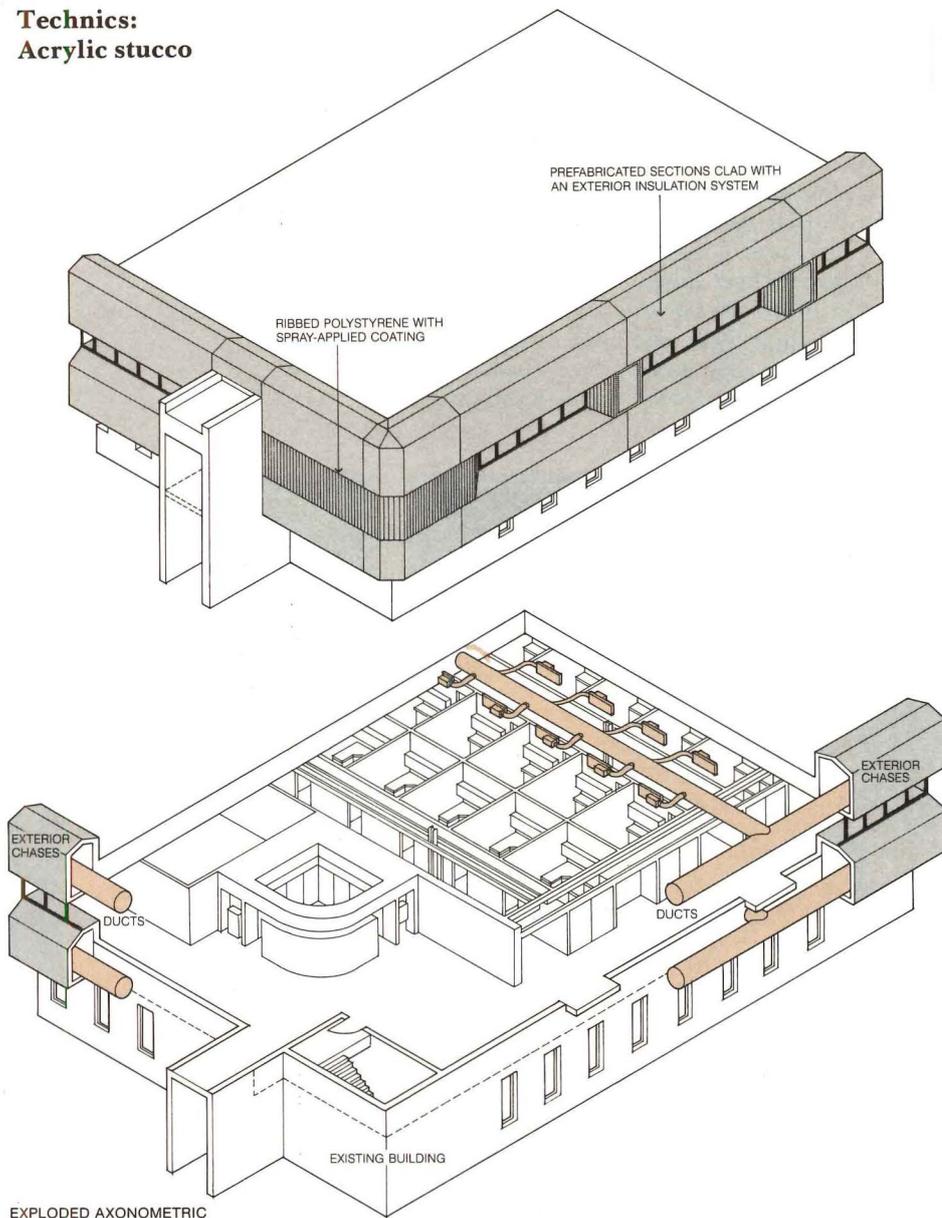
The two types of systems differ in appearance as well. The hard coat systems have a small range of relatively light colors, similar to cement stucco. Not so with the soft coat systems. Soft coat manufacturers can custom mix almost any color desired. (While the acrylic in the coating resists fading, it is wise to discuss with the manufacturer the use of very dark colors for, in a sunny exposure in a hot climate, some colors can absorb enough heat—about 165 F—to deteriorate the expanded polystyrene insulation underneath.)

Both types of systems allow a variety of surface textures and finishes, although the hard coat systems, because of their thickness and cementitious character, probably offer more textural options.

The thickness of the coatings affects more than their surface texture. Hard coat systems have a base and finish coat totaling about a quarter inch, enough to cover the washers and heads of screwlike fasteners that attach these systems to the wall. Those fasteners provide a measure of security, but unless specially designed with knuckle joints and made of nonconductive materials, they can act as thermal bridges or shear points, transferring heat or building movement to the more brittle finish coat.

Although exterior insulation systems resist cracking and the soft-coat systems do not even require control joints, many architects such as Perkins & Will in their Pocatello Regional Medical Center (top left) score the coatings to give visual interest and scale. This detail from the Ethicon Building (top right) shows the standard texture, although most manufacturers offer heavier textures and aggregate finishes.

**Technics:
Acrylic stucco**



Soft coat systems have a base and finish coat totaling around one-eighth-inch thick, just enough to cover their fiberglass reinforcement. Since their coatings are too thin to cover the heads of fasteners, most soft coat systems use acrylic adhesives to bond the systems to the wall, although a few soft coat manufacturers have recently introduced mechanical attachment in the form of concealed splines or dowels within the thickness of the insulation. Adhesive attachment avoids the problem of transferring heat or movement through the exterior insulation system. It faces other problems, though, on powdery or flaking surfaces, where manufacturers usually recommend coating the surface or mechanically attaching a suitable new base and on gypsum sheathing, whose own manufacturers disavow responsibility for exterior insulation systems adhered to their product's sheathing paper because of its possible delamination. (Soft coat systems manufacturers in rebuttal, claim that their negative wind load testing shows failure occurring most often not in the gypsum sheathing's paper but in the sheathing itself pulling off of the stud screws.)

Reinforcement

Both hard and soft coat systems use alkali-resistant fiberglass fabrics as reinforcement within the base coat. The products differ mainly in their detail. Some companies offer a thicker fabric for high impact areas and some recommend simply doubling their standard fabric. Some adhere the fabric to the insulation with the acrylic-cement base coat and some mechanically attach the fabric with fasteners through the insulation and into the wall. Most failures with the fabric occur when its alkali-resistant coating is uneven, allowing the cement in the base coat to attack the fiberglass. That reduces the tensile strength and impact resistance of the whole system.

A few hard coat manufacturers avoid using a fiberglass fabric altogether by adding chopped glass fibers to their base coat. That method saves on the labor required to place the fabric and allows the base coat to be easily spray-applied. But some critics claim that, in a fire hot enough to melt the acrylic in the coatings, the chopped fibers do not hold the wall system together as well as a mechanically fastened fabric.

Insulation

The type of insulation also helps distinguish between the two types of exterior insulation systems. All soft coat systems use expanded polystyrene or bead board; hard coat systems vary: some use expanded while others use the more expensive extruded polystyrene. Their differences go beyond that of cost. Expanded polystyrene, made by fusing heated polystyrene beads together, has a lower R-value (about 3.8 per inch) but a high vapor permeability and a low shear modulus, making bead board more compatible, especially with the highly permeable, adhesively attached soft coat systems. Extruded polystyrene made by melting polystyrene beads and ex-



Davis/Brody



Davis/Brody

Faced with low ceilings and large HVAC requirements in their rehabilitation of a building for IBM, Davis/Brody took advantage of the light weight, easy prefabrication, and insulating properties of the exterior insulation system by using it to clad horizontal duct chases on the outside of the building. The factory-built, 32-ft-long chases arrived at the site with ductwork already installed.

cluding the liquid through dies, has just the opposite traits: a higher R-value (about 5 per inch), a low permeability, and a high shear modulus. The low permeability demands that a good vapor retarder be installed to prevent trapping moisture within the wall, and the high shear modulus demands that the insulation be restrained with fasteners to prevent the extruded boards and the acrylic coating from moving at different rates. Extruded polystyrene insulation is thus used in only a few hard coat systems, despite its many other advantages, such as a low water absorption rate and a high compressive strength. (Because of those last two characteristics, some soft coat manufacturers recommend using extruded polystyrene with their system below grade.)

System performance

Choosing an exterior insulation system is hindered by a lack of industry performance standards. (EIMA—the Exterior Insulation Manufacturers Association—promises performance criteria within two years.) That forces the architect to choose a company as much as a product; and such questions must be asked as: what is the company's size and experience, what kind of technical support services and specifications does it offer, what is its reputation among former customers, how does it train its applicators, and what does its warranty cover? Some exterior insulation manufacturers, for instance, have warranties that cover the failure of a building's gypsum sheathing once it has been approved as a substrate; others do not. Some technical staffs review and approve architectural details; others do not.

Even the best systems, of course, are not foolproof. Installation errors can include using poor quality or poorly cut insulation boards, leaving open joints, or (in the case of hard coat systems) providing an inadequate number of control joints, applying hard coatings too thin or soft coatings too thick, using unevenly coated glass fiber, or having inadequate adhesive or too few fasteners over an improperly prepared substrate. Yet these systems probably suffer more from poor detailing and inappropriate use.

Regardless of what some may claim, exterior insulation systems are not for every building. They cannot withstand very aggressive environments—industrial facilities subject to strong chemicals, sites prone to vandalism and graffiti (paint removing solvents destroy the acrylic coatings) or strong impact areas, such as a truck dock. In response to the vandalism problem, some companies have introduced a finish with aggregate set in a clear acrylic coating. Nevertheless, several architects think, as one puts it: "Exterior insulation systems are excellent products—when used more than ten feet above the ground."

Poor detailing can also cause problems with these systems. Common errors include not knowing details at a large enough scale to

prevent improvisation in the field, not adequately sloping sills and copings to prevent their deterioration and staining, not wrapping the fiberglass and acrylic coatings around and behind the insulation at all dissimilar materials, not providing enough expansion joints or using plastic rather than metal joints in cold climates, and not flashing joints well enough to prevent what may be these systems' greatest threat: water leakage. Water will ruin sheathing paper, greatly reduce the insulating properties of expanded polystyrene, and corrode metal fasteners.

Fire, given the flammability of polystyrene and the low melting point of acrylic, would also seem to pose a threat to these systems. Yet, fire tests indicate that these systems do not contribute to combustion, largely because the high mineral content of the coatings sufficiently protects the insulation. That assumes the proper installation and maintenance of a system. Exactly how much insulation must be exposed to affect the fire ratings significantly is not fully known. Most systems, nevertheless, have received all pertinent code approvals.

Design potential

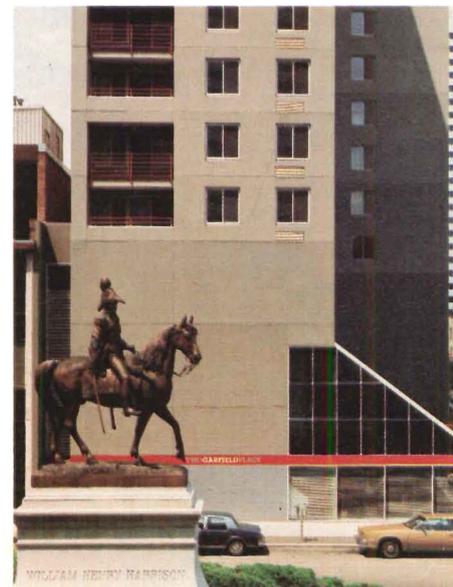
What these systems haven't received is the design attention that they deserve. They're still viewed by many as a utilitarian product, something used only when other masonry skins prove too expensive. That stems not from a failing of the material so much as a failing of imagination, for exterior insulation and finish systems have formal and coloristic qualities rivaled by few other materials. Hitchcock and Johnson called the stucco finish, "the hallmark of the contemporary style." Given the growing acceptance of the stuccolike acrylic coating, they may yet be proven right. [Thomas Fisher]

Acknowledgments

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Further reading

Apart from manufacturers' product literature, a good source of information on stucco and exterior insulation systems is the newsletter *Techniques and Comments* (5131 Moorpark Ave., San Jose, Calif. 93129; 408-446-4213). The Exterior Manufacturers Association is located at 1133 Fifteenth Street, NW, Washington, D.C. 20005; 202-429-9440.



Wolfgang Hoyt, ©ESTO

Prentice & Chan, Ohlhausen in this commercial and residential project in Cincinnati (above) reduced the building's mass by gradually lightening the color of the prefabricated exterior insulation panels on ascending floors. Concerns about the durability of exterior insulation systems prompted the architects to specify a metal panel along the ground floor.

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Chicago Committee on High Rise Buildings

William T. Lohmann

A group of dedicated professionals in Chicago continues to make its contribution to the technology of tall buildings, the unique symbol of 20th-Century construction.

Organized in 1968, the Chicago Committee on High Rise Buildings (CCHRB) was formed to spearhead design and construction research and innovation in the Chicago area, specifically for high-rise structures. Its charter volunteers were drawn from the entire building community. Today its members still come from familiar architectural and engineering firms, developers, manufacturers, trade associations, contractors, educational institutions, and code authorities. The committee meets monthly to discuss industrywide problems and supports its activities through member dues, educational seminars, and sale of its publications.

The committee is organized into reporting task forces. Understandably, structural subjects are of major concern and are addressed by task force units on materials, lateral forces, and exterior walls. Other units focus on building systems, such as mechanical, communications, vertical transportation, environmental effects, and energy. Another task force is devoted to rehabilitation of high-rise buildings. Sometime in the last several years, "fire safety" became "life safety" and recently a task force was added on provisions for handicapped persons.

The problems of high-rise design, construction, and operation are often the same as those associated with low-rise buildings—fire safety, design loads, and the special demands of multiuse occupancy, for example. But they are radically altered by the magnitude of a high-rise project. In effect, small problems become complex ones. Other concerns, such as wind deflections, water pressures, structural column shortening, and caisson design, are unique to high-rise buildings. The committee has worked on most of them.

Current structural research projects are representative examples of the committee's work. Instruments for field measurement of movement and stress have been installed on two structural columns and a mock column at the new Chicago Mercantile Exchange building and are monitored to study the physical properties of 14,000 psi concrete. Tests have also been initiated recently on high strength concrete beams in collaboration with the University of Illinois in Chicago. The results are being shared with ACI Committee 363 on High Strength Concrete, which is evaluating proposed revisions to the ACI Code. The test results will also be published by the CCHRB.

Such task force studies come to light in various forms. At monthly meetings, committee members hear presentations on subjects as diverse as condominium noise control, low voltage wiring in plenum ceilings, and building automation. Some projects, such as recent studies on fresh air requirements, signs, an-

tenna towers, and corner loading of curtain walls, will eventually lead to local building code revisions.

Other results are more immediately accessible to the industry. Last year a two-day seminar was held on "Energy Use and Management in High Rise Buildings." This fall the committee organized a seminar on the Kansas City Hyatt Regency walkway collapse. Conferences on tornadoes and design loads are tentatively scheduled for 1984.

Work of the CCHRB has had an indirect influence on specifications through code revisions and educational efforts. Studies of high-rise fire safety systems in the mid-1970s prompted a new City of Chicago ordinance and led to revised code requirements (and specifications) elsewhere. The committee often evaluates new products such as exterior insulation materials, which were the subject of the June and July 1983 meetings. A growing list of publications is also available. It includes titles like "High Strength Concrete in Chicago High Rise Buildings" and proceedings from the 1982 energy seminar. Write to the CCHRB, % Skidmore, Owings & Merrill, 33 West Monroe Street, Chicago, Ill. 60603 for further information.

Energy from the Chicago Committee on High Rise Buildings now radiates far beyond its local origins. Its publications have spread, and its speakers travel to other cities. Last year it hosted the second meeting of the International Council on Tall Buildings and Urban Habitat, and has been asked to do it again in 1985. □

William T. Lohmann, AIA, FCSI, is Specifications Manager for Murphyl/Jahn, Chicago.

Defining completion date in liability suits

Norman Coplan

The statute of limitations for breach of contract or malpractice suits against an architect runs from the completion of construction. Conflict arises in the determination of that date.

The time within which an owner must institute suit against an architect for malpractice or breach of contract is determined by the statute of limitations of the jurisdiction in which suit is brought. Most such statutes measure the time when suit must be instituted from the date when the cause of action accrued. There is, however, continuing dispute and litigation relating to the establishment of the date of such accrual.

Traditionally, a claim for breach of contract accrues as of the date the breach occurs. In construction contract cases involving an owner's claim against an architect arising out of alleged defective construction, however, a different rule has evolved in some jurisdictions. This rule provides that the owner's cause of action accrues not as of the date the wrongful action of the architect occurs, but rather as of the date of completion of construction. The rationale for using the latter date to measure the commencement of the running of the statute of limitations appears to lie in the premise that the architect's duty to design an appropriate building is a continuous one that does not end until the building is completed, and thus it would be unreasonable to require the owner to resort to litigation while construction was in progress and steps could be taken to cure a defect.

In the May 1982 issue of P/A, this column reported on a New York case (*Board of Education of Tri-Valley v. Celotex Corp.*) in which an intermediate appeals court ruled that the statute of limitations did not commence to run until a final certificate of payment was issued, and that such date would be considered the completion of construction. This decision was subsequently affirmed by the New York Court of Appeals. Since that determination, however, additional questions have been raised as to the definition of "completion of construction." In a recent case, for example (*State v. Lundin*, 459 N.Y.S.2d 904), a New York court was called upon to rule whether the date of the issuance of a final certificate of payment should be the critical date where the issuer of the certificate was not the architect, but the owner. The architect argued that the earlier decision was inapplicable, since it was premised on the fact that the architect's contract required him to conduct inspections to determine substantial and final completion and to issue a final certificate of payment, whereas in the case before the Court, he had no such contractual responsibility. Consequently, he contended, the statute of limitations should run from the date of the physical completion of the project, which would thereby bar the action.

The court, in dismissing the action on the ground that the statute of limitations had run, stated:

"The point in time when construction was completed, of course, depends upon the facts and cir-

cumstances of each case. The courts have generally looked to the completion of the actual physical work . . . but in Board of Educ. of Tri-Val. Cen. School Dist. at Grahamsville v. Celotex Corp. . . . an action by the owner against the architect, the court used the issuance of the final certificate of payment as the completion date, despite the fact that the physical work was finished some three years earlier. . . . (W)e concluded that 'the final certificate [of payment] was not merely a ministerial act but represented a substantial contractual right of plaintiff owner and a concomitant contractual responsibility of defendant architect in completing the project.' . . . Here, none of defendants had the contractual responsibility for issuing the final certificate. Rather, that responsibility lay with the State itself. The State's project manager, a third party defendant, was obligated by its contract with the State to 'conduct, in conjunction with the designing architects and engineers, final inspection of all units of construction, preliminary to acceptance, to ensure the conformance of all aspects of the work to contract requirements.' The State's issuance of the final certificate of payment was, in our view, nothing more than the State's formal acceptance of an already completed project. Such acceptance served to trigger the running of the contractual guarantees and signified the end of the period for making equitable adjustments in the contract price. It cannot, however, serve to extend the completion date of the project for those parties whose contractual obligations concerning the construction itself had ended some five years earlier when the physical work was substantially completed and the building was fully occupied by the State."

In a dissenting opinion, a minority of the court argued that completion of the project should be measured from the date the final certificate of payment was issued by the State. This conclusion was based on the fact that it was the obligation of the architect to participate in the final inspection of the building with the construction manager who was responsible for issuing the final certificate of payment. Accordingly, concluded the dissenting judges, "the cause of action against the architect did not accrue until the final certificate of payment was issued."

This case also involved the issue of when cause of action as against a contractor accrues. The court held that although general contractors are not professionals like architects and engineers, the contractual duty assumed by them continues until completion of construction. The owners, indicated the court, rely on their expertise to see that the project is completed according to the plan. We conclude, therefore, stated the court, "that completion of construction is also the accrual date for an owner's claims of defective construction against a general contractor." [

Norman Coplan, Hon. AIA, is a member of the law firm Bernstein, Weiss, Coplan, Weinstein & Lake, New York.



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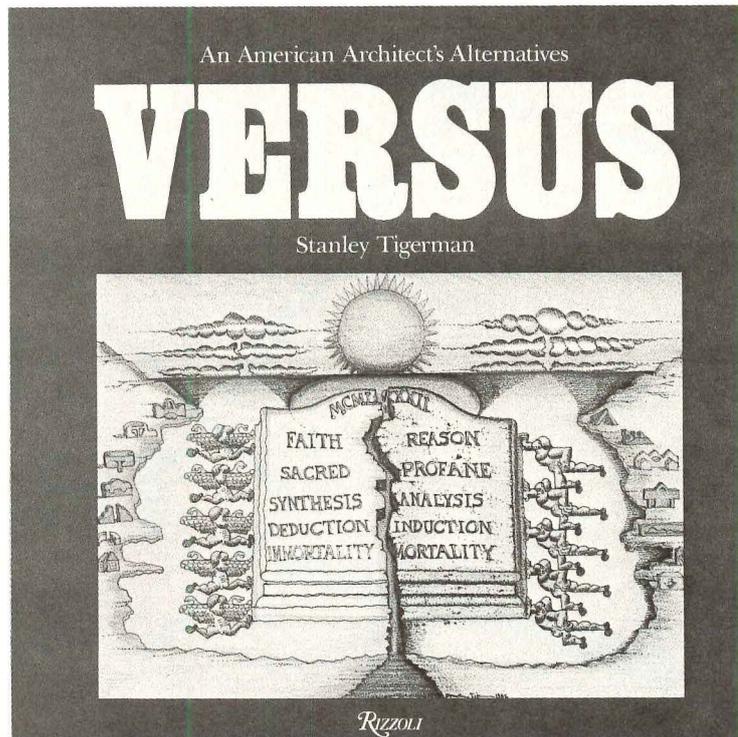
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On Tigerman

Books



Versus: An American Architect's Alternatives by Stanley Tigerman. Rizzoli, New York, 1982. 190 pp., illus., \$35 hardbound, \$19.95 paperback.

Reviewed by Aaron Betsky, assistant professor of architecture at the University of Cincinnati.

Early on in Stanley Tigerman's *Versus: An American Architect's Alternatives*, the architect/author addresses a self-mocking letter to that most sacrosanct of heroes, Mies van der Rohe. Chicago is still the master's kind of real place, he claims, a city where "buildings really mean something—you can touch them, you can rent them, they're made out of something there's not all that funny so-called idea content to contend with. Sullivan and Giedion and Pevsner were right." And Stanley Tigerman is wrong? Why is Stanley Tigerman flagellating himself in public? And what does all of this writing and talking tell us about Tigerman's design? "... well, you always thought I was kind of silly. At least that much hasn't changed." Which of course makes the reader immediately look behind such a humorous veil for the serious content, the real message in the architecture.

In this way, both the book and its contents are a perfect reflection of Tigerman's humorous, combative personality. Yet the style in which the material, whether written or built, is presented, leaves much to be desired in terms of directness and clarity. At times, the verbal and structural ornamentation seems to lead a life of its own. In the introduction, for instance, Tigerman tries to explain the title of the volume by saying that, as a Jewish architect, he intends to "... confront these joint goals of ideality and perpetuity and to propose that architecture can hold a dialectical position within the dualistic tradition of simultaneity. This argumentative attitude realize stands outside the mainstream Zeitgeist theory of architecture." I am not completely certain what that mainstream theory may be, and I am not even sure if Tigerman's semiphilosophical position is at all based on a thorough reading of his sources. What I am sure of is that he is hiding the process of personal development and revolt against existing models, a process central to the work of almost all significant architects practicing and publishing today, behind a smoke screen of authoritative academic words.

[Books continued on page 94]

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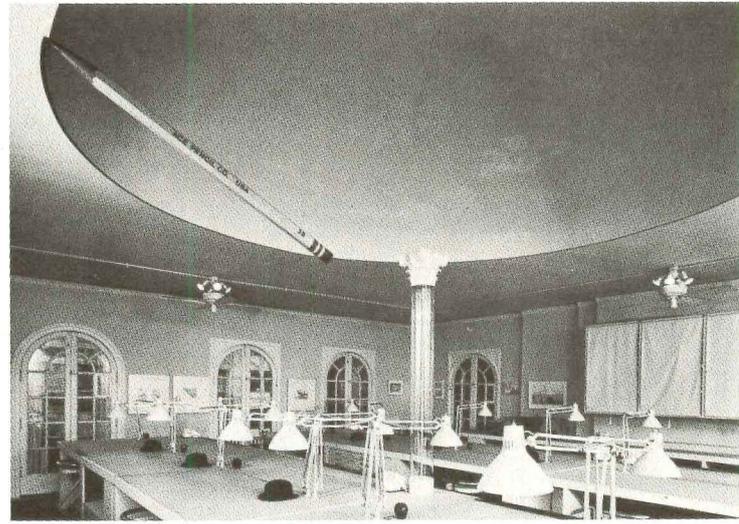
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Stanley Tigerman's studio, Chicago, Ill., 1977.

It is clear from the first chapters that Tigerman was an extremely gifted and well-trained manipulator of the Modernist idiom, but was uncomfortable with its practices. Perhaps he experienced a touch of Yale's (where he received his final induction into mainstream Zeitgeist Modernism and its transformations) famous anxiety of influence. Yet Tigerman invents an ex post facto dialectic between "goyish" preoccupations with ideal and enduring forms and Jewish fascinations with contradictions, mortality, and irony. He points to the equivalent emergence of Jewish influences in American literature. Yet I do not think that Philip Roth has ever made claim for a literature that was Jewish in form, and certainly not for one defined in opposition to a non-Jewish literature. Every ethnic group can contribute forms or references from its own cultural storehouse; Jewish traditions can also contribute to the development of architectural forms which will be relevant in a society whose culture already contains a significant Jewish element. Perhaps certain cultural attitudes are specific to certain ethnic groups and do interact with Christian notions or formal laws, as Arthur Drexler, for instance, has argued in analyzing the work of Louis Kahn. From looking at Tigerman's work, though, I see only the amalgamation of critical tactics and Modernist methods that do indeed form the Zeitgeist of almost all of our arts.

Much more convincing is Tigerman's argument that the contradictions inherent in our political, economic, and moral assumptions exposed by Vietnam found their architectural equivalent in Venturi's rediscovery of the vitality of complexity and contradiction. These chapters give one a clear sense of the difficulty felt by this by now successful architect in abandoning the easy tactics and heroic solutions of the architecture he was trained in. His design became more theoretical and even warped. Tigerman's essays in Brutalism and Megastructuralism, such as the Instant Football housing or the Kingdom of Atlantis, giant shards of tetrahedrons looming half protectively, half threateningly over Zipatone masses of people, are some of the more evocative images of the period. But there is always a sense that Tigerman is wriggling out from underneath the weight of his architecture with a touch of wit, as in the collage photograph of the "maintenance crew" of Instant Football fishing in front of the building in a way that suggests that the building is an instant tourist attraction. The crew paddles away serenely from the awe-inspiring pyramids of power, and Tigerman's architecture similarly goes its own, more light-hearted way.

Tigerman's interest evolved into a precarious balance between well-built wit and purposeful overstatement in his mid-1970s designs for wealthy Chicagoans who seemingly shared a respect for the basics of spatial organization and a willingness to be irreverent. Chicago, the place of authority and power, had obviously become for Tigerman the place of rebellion. Chicago is also the capital of the heartland, and Tigerman is equally quick to point out, and it is the combination [Books continued on page 96]

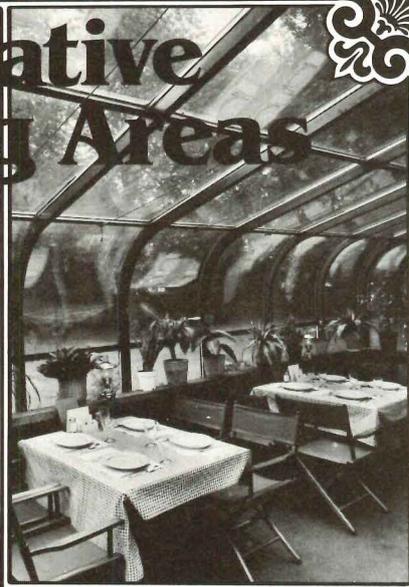
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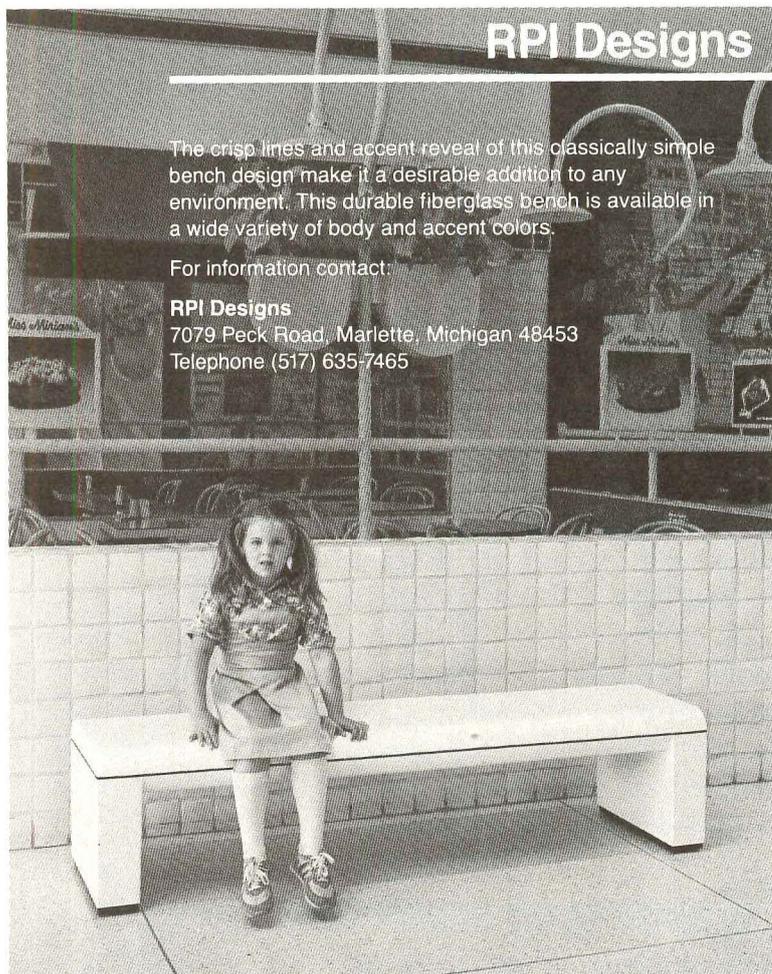
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Books continued from page 94

tion of rebellion and popular culture which resulted in the kind of images that jump out at the reader of this book.

The Animal Cracker House may be a good pun on domesticity in the urban jungle, but it is also one of the more serenely designed Modernist essays in framing and containment. Even more concise is the Hot Dog House, a simple game of public and private, man-made and natural, and open and closed inversions assembled in the somehow archetypal shape of a rounded bar. Clapboarded on one side, covered by a De Stijl pattern of windows on the other, and forming a facade and symbol of man's division between, in this case, cultivated nature in the form of an apple orchard, and the primeval swimming hole on the other, it is as pure a statement of the techniques and concerns of this generation of architects as the Glass House was of those of its period.

And then, of course, there is the Daisy House. The combination of the phallic shape and Marilyn's Warholized lips, the billboard Rococo reversible parti, and the fact that it was designed for a terminally ill client make the project a poignant joke, the final one-liner in the war of humorous salvos which have buried the sententious father figures of the 1950s underneath the shifting sands of Post-Modernism.

But what is one to do next? One can keep making jokes, as Tigerman did when he tried to give St. John's, at the University of Illinois, confessionals shaped by tracing toilet templates. Obviously people laughed, but weren't willing to keep paying for this kind of design. And what is—to parallel the architect's own put-down of the Zen parable of a tree falling in an unpopulated forest, thus creating a sound Tigerman equated with that made by Mies turning around in his grave—the sound of one architect chuckling to himself? Tigerman has developed a theory of responsiveness to the client, but this willingness to take one's cues from the people whose lines one is trying to turn into physical reality makes one extremely dependent on those clients, and more defensive of one's own attitudes and lines when one gets the chance. *Versus* is only the latest in a series of self-references that started with such acts as placing a portrait of himself at the center of his design for the Thonet showroom in Chicago. Worse yet is the enigmatic architectural monumentalizing practiced in such projects as the expansion of the Bahai Temple, where the unattractive shape and anti-functionality of the proposed scheme needs at least a half-hour-long justification by the architect. The references to history become serious, and the elaborate compositions of colonnades, grand porches, neo-Palladian plug-in pavilions and Terra staircases lose their deft humor and appropriate place—though one might also attribute this grandiose manner to the wishes of the clients.

It is only when Tigerman fulfills a civic commission, such as the Humane Society building or the Library for the Blind, that his combination of technical mastery and near-explosive eclectic form-making regains its full power. The colorful Library combines a real concern for its clients and a fascination with ways in which the givens of architecture, such as circulation and structure, can be turned into forms of communication, with a series of reversals and geometric compositions that allow the building to stand proudly and confidently, yet at the same time humbly and with a smile on its concrete face in the desolate urban ruins of Chicago's South Side.

All of this adds up to either good or not so good architecture by a champion of the metier, whether in words or in sticks and stones. *Versus* is nothing more or less than the latest chapter in a personal, geographic, and cultural polemic that does not need nearly so much theoretical and psychological exposition to be an effective force on the architectural scene. Tigerman might argue that it is the polemical gestures of the book and the architecture which are the point, the method, and the result all rolled into one. Certainly this argument makes *Versus* the most readable and memorable monograph on a currently practicing architect's work to come out in the last several years. It also makes the work illustrated here both tantalizingly provocative and frustratingly self-involved. The question remains whether, if as Tigerman claims, he has been dragged "kicking and screaming into this naked state," he is to prove himself a Post-Modern Emperor, or a potentate without clothes. □



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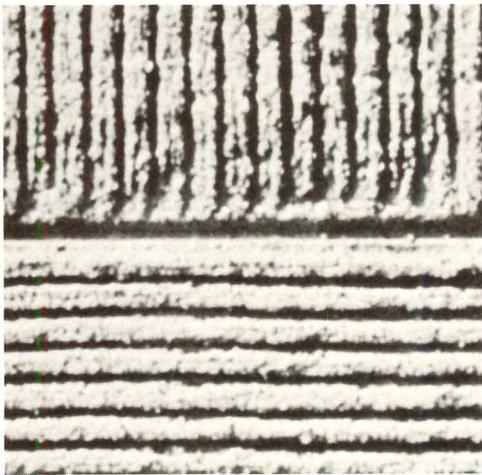
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R-Wall exterior insulation and finish system is discussed in a 16-page color brochure. Components of the system include expanded polystyrene insulation board, glass fiber reinforced fabric attached to the insulation board with acrylic adhesive combined with Portland cement, and a waterproof, self-bonding acrylic top coating available in 101 standard and special colors. Installation details, test results, and technical specifications are included in the brochure. ISPO, Inc. Circle 205 on reader service card

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USG curtain wall systems brochure describes lightweight framing systems for exterior non-load-bearing walls. Included in the 20-page brochure are detail drawings showing concrete and steel framing used with exterior stucco. Tables show height limitations and technical data. Information on good design practices and architectural specifications are provided. United States Gypsum. Circle 210 on reader service card

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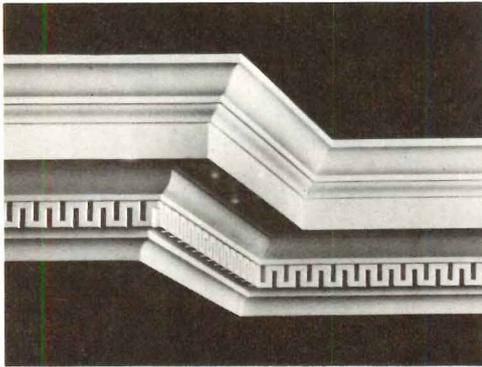
*DuPont manufactures HYPALON, not single-ply roofing membranes or systems.



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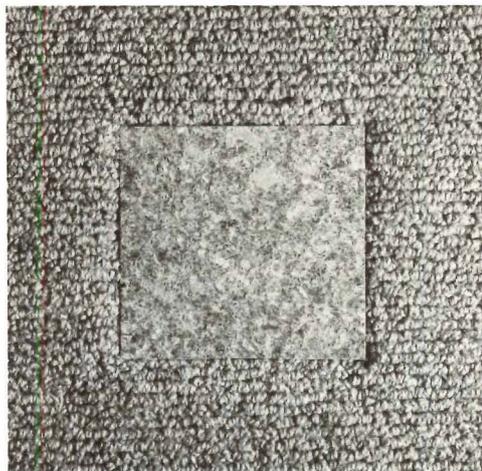


Other products



Moldings and chair rails authorized under the program of the Colonial Williamsburg Foundation are suitable for larger than average homes. The five moldings and five chair rails were selected from those in the Governor's Palace, Raleigh Tavern, and the George Wythe House, and Carter Grove, one of the James River Plantation houses. The products are molded from Endure-all[™], a factory-primed, lightweight material that offers crisp detail and is paintable, stainable, sawable, nailable, and fire retardant. Focal Point, Inc.

Circle 100 on reader service card



Soft Rock wool carpet designs harmonize with marble, terrazzo, and stone floor and wall materials by emulating color and graining. Ten patterns introduced at NEOCON represent capabilities of translating any hard-surfaced material design into wool carpet. Edward Fields, Inc.

Circle 101 on reader service card

Universal fabric of 100 percent Trevira[™] is inherently flame retardant. The stretch fabric has a miniature petitpoint texture and is yarn-dyed in a wide choice of colors. It can be used on walls, panels, or seating. Lee Jofa, Inc.

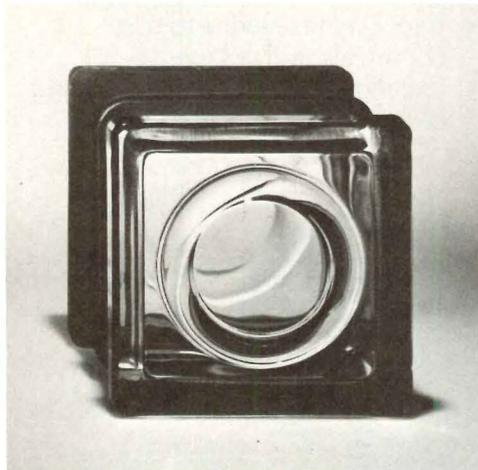
Circle 102 on reader service card

Victoria seating, named for a low, light, four-wheeled carriage, consists of armchairs and two- and three-seat sofas. Designed by architect Mario Bellini, the seating has a welded steel frame, padded with polyurethane foam. Back, seat, and arm panels can be covered in a selection of upholstery fabrics, leather, or COM. Loose down-filled seat and back cushions have removable covers for easy maintenance. Atelier International, Ltd.

Circle 103 on reader service card

Thermacore residential garage doors are made from the same insulated panels used on commercial and industrial doors, providing energy-saving features. They are available with several options to fit individual needs. Heights and widths range from 8 to 16 feet. Insoport Industries, Inc.

Circle 104 on reader service card



Circllet glass block, one of several new designs, has a smooth exterior and a ring pressed into the inner face to create a three-dimensional appearance. The block is 5" x 5" and has a rim of standard white or a choice of eight colors. Forms & Surfaces.

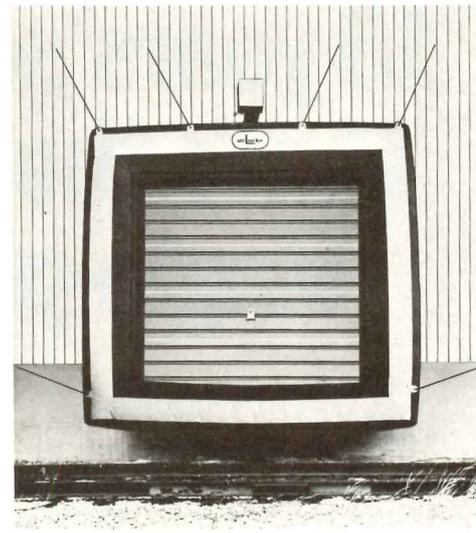
Circle 105 on reader service card

Form:Draw interactive drafting system for architects, mechanical and civil engineers, and for general drafting is also capable of word processing, business graphics, and spread sheet calculation. The work station consists of a processor with 32-bit address space, freestanding 19-inch landscape display, 84-key keyboard, Winchester technology rigid disk with 26 Mb capacity that is expandable to 70 Mb, and graphics tablet. Options include 15-inch portrait display, floppy disk drive backup, high-speed pen plotter, and laser printer. Formative Technologies.

Circle 106 on reader service card

Flooring product kit contains samples of Flexi-Flor[®] sheet-rubber flooring, flat surface and abrasive strip stair treads, and Target Tile[™] with raised discs for flooring or stair treads. The kit allows architects, designers, and other specifiers of flooring to see actual colors and thickness of materials. The R.C.A. Rubber Company.

Circle 107 on reader service card



Rail dock seals, track-mounted for easier installation, inflate to stock height and width to form a weathertight insulating seal between rail car and building. Made from a combination of neoprene and Hypalon-coated nylon, the seals come in two models to accommodate different platforms: RTM-3 for railroad centerline to building distance of 7'-8" to 8'-5" and RTM-4 for distances of 8'-6" to 9'-3". Airlocke Dock Seal Div. of O'Neal Tarpaulin Co.

Circle 108 on reader service card

SPECTEXT[®] Master Guide Specifications library covering CSI Masterformat divisions 1 through 16 is available on 8-inch floppy diskettes for microcomputers that operate under the CP/M Wordstar software programs. These include Autos, Syntrex, Xerox-820, Compuserve, and Micom. The package includes the 2300-page guide specifications on floppy diskettes, SPECTEXT printed in hard-copy form, and three quarterly updates of both. Bowne Information Systems.

Circle 109 on reader service card

Drainage panels and boards are filtration products manufactured from large lightweight expanded polystyrene (EPS) beads bonded into a rigid block. Applied against below-grade, retaining or earth-bermed building surfaces, the boards eliminate hydrostatic pressure, protect foundation waterproofing systems, insulate below-grade interior surfaces, and reduce condensation problems. Geotech Systems Corp.

Circle 110 on reader service card

Verticon area light has a durable, die-cast aluminum housing and accommodates HID lamp sizes from 70 to 400 watts. The aluminum reflector provides uniform lighting and sharp cutoff. Verticon was designed for small areas such as parking lot entrances, pedestrian walkways, parks, courtyards, and driveway. JPL Lighting Div., J W Lightin Inc.

Circle 111 on reader service card

[Literature continued on page 104]



We won't tell you now who won or for what. You'll have to see the January 1984 P/A. But we can give you some statistics about the 31st P/A Awards competition:

Out of 934 entries, the jury chose just 9 for awards, 20 for Citations.

Of the winning entries, 17 are in the architectural design category, 6 in urban design/planning, 6 in research.

Of the 29 winners, 8 have never before had work published in P/A; some have never had work published at all; others are household names in this profession.

The Northeast did not dominate the winners; of the 17 winners for architectural design, only 3 are from the Northeast, vs. 4 from the Middle West and 6 from California. Among this year's architectural design winners, most show a strong concern for context, many employ more or less historical forms and composition, but few exhibit any historically inspired ornament.

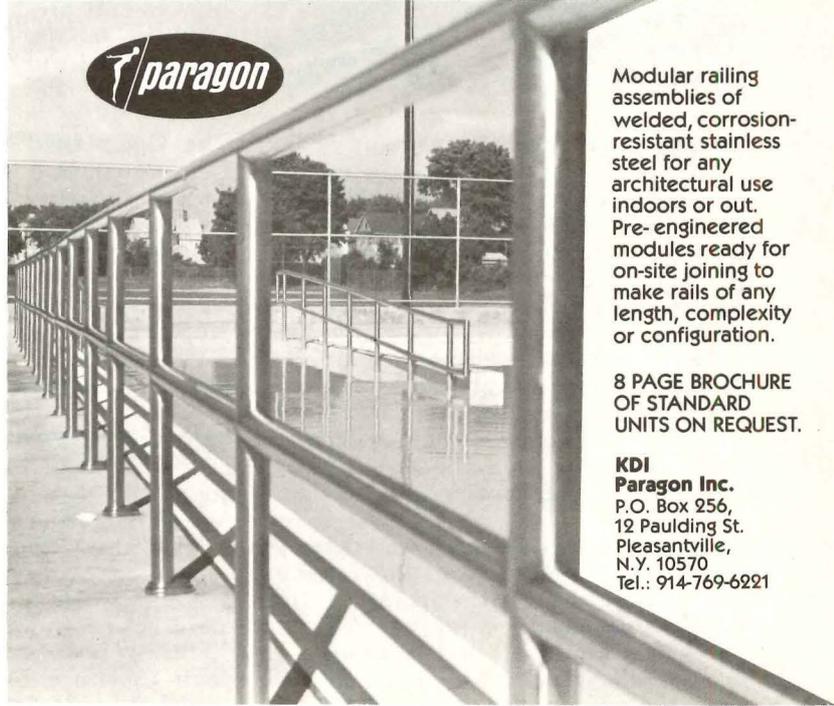
Among the urban design winners are themes for prominent parts of our major cities.

The research entries cover a range of timely issues: energy, housing, the handicapped, preservation, and urban planning.

A Practice will be introduced in the January issue. During 1984, this monthly department will include dozens of articles on timely subjects of professional concern, such as drafting systems, computers, specifications, client relations, law, and management.

P/A in January: 31st annual P/A Awards

New from KDI Paragon Inc. Perma Rail Welded Stainless Steel Railing Systems



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Circle No. 331 on Reader Service Card

The Fourth Annual

International Furniture Competition

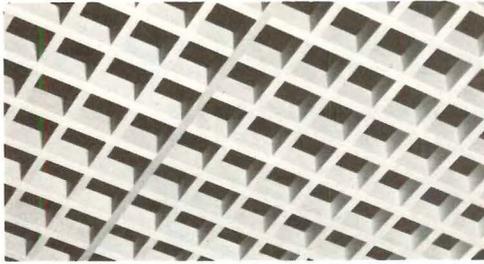
sponsored by

Progressive Architecture

with winning projects to be displayed at major industry events

For further information see November P/A, p. 27, or announcements in September or October issues, or write to P/A Furniture Competition, P.O. Box 1361, 600 Summer St., Stamford, CT 06904.

Other literature

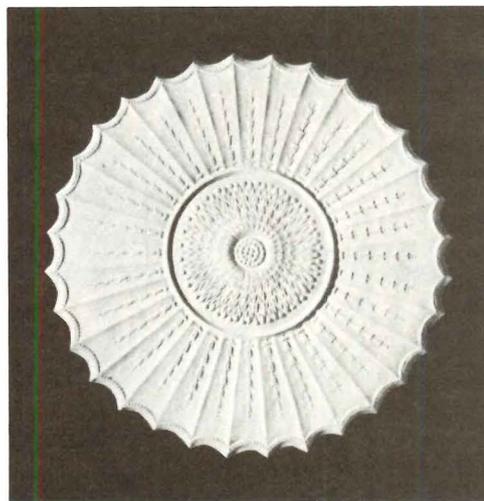


Wood grid ceiling units made up of 3" x 3" cells can be installed as modular units or continuous in one direction. Modules are 2' x 4' or 4' x 4' and can be suspended from standard T-bars or on parallel T-bars. Lighting, acoustic treatment, air distribution, and sprinklers can be used with the ceiling, and many systems are available with a Class A fire rating. An eight-page brochure describes and illustrates the ceiling and provides installation details. Forms & Surfaces.

Circle 214 on reader service card

Aluminum window and wall system features are explained and illustrated in a 16-page brochure. Included are single-hung, double-hung, sliders, and projected windows, and window/wall systems. The brochure provides general specifications and detail drawings. Alenco, Redman Building Products.

Circle 215 on reader service card



Architectural ornaments made from fiberglass-reinforced gypsum cement and plaster are described and illustrated in a 24-page catalog. Pieces available include medallions, ceilings, moldings, brackets, friezes, and wall panels. The company also offers custom service, designing new pieces or reproducing designs from salvaged ornaments. Dovetail, Inc.

Circle 216 on reader service card

InfoMedia™ System catalog offers media devices, file systems, worksurfaces, workstations, and accessories for organizing electronic office clutter. Filing systems handle printouts, tapes, and

cards in open or closed storage, safes for sensitive data, and movable equipment. Ergonomic and conventional worksurfaces and seating are also included in this 120-page catalog. Wright Line.

Circle 217 on reader service card

Woodwork buyers guide from trade association lists sources of doors, plywood, particleboard, lumber, stairs, moldings, veneers, laminates, and specialty products. The 106-page guide includes sources and products available by category in tabular form. Architectural Woodwork Institute.

Circle 218 on reader service card

The Color Grid™ System and Color-Core™ surfacing material are described and illustrated in color in a six-page brochure that provides specification information. Paper swatches show the 72 colors in which ColorCore is available: 36 Chromatics in six color groups and 36 Neutrals in six shades graded from dark to light. Formica Corp.

Circle 219 on reader service card

Series 5000 advanced graphics software provides 3-D geometry, random access, and single or double precision data representation. The user can work in any units desired. The software, which operates on Auto-trol's AGW advance graphics workstation or Digital Equipment Corporation's VAX family of 32-bit processors, is described in a 12-page brochure. Auto-trol Technology Corp.

Circle 220 on reader service card

Softshine wall chart illustrates 20 optical systems for solving specific lighting problems using a six-inch round fluorescent fixture: wall wash, uplight, or downlight, with narrow or wide-spread illumination. It shows how the Softshine lens directs light where it is needed, without glare. Peerless Electric Company.

Circle 221 on reader service card

'Finishes for Stainless Steel,' a 60-page designer's handbook, describes standard industry and proprietary finishes for stainless steels. It covers prefinished steels and offers suggestions for finishing by manufacturers and fabricators. The text discusses both repairable and nonrepairable finishes. Steel forms include sheet, strip, plate, bar, wire, tubing, and pipe. Single copies are available without charge from: Committee of Stainless Steel Producers, American Iron and Steel Institute, 1000 16th St., NW, Washington, D.C. 20036.

Tile sample folder containing an actual piece of 8" x 8" tile in a central pocket shows the 15 colors available on one side of the folder. The other side provides data on the tile characteristics to aid the specifier. Interceramic.

Circle 222 on reader service card

Streetscape portfolio consists of data sheets for pedestrian shelters, lighting and traffic control modules, litter containers, lighting bollards, and furnishings such as planters and benches. The products are illustrated in color and fully described. Urban Systems Streetscape, Inc.

Circle 223 on reader service card

Water reed thatched roof manual describes Warwickshire thatch and its application. The 24-page manual contains full specifications, architectural detail, roof deck construction and underlayment details, and compliances. The material is fire-retarded, highly insulative, water-repellent, wind-resistant, and durable. Warwick Cottage Enterprises

Circle 224 on reader service card

Building materials

Major materials suppliers for building that are featured this month as they were furnished to P/A by the architect

Middlebury Elementary School, Middlebury, Conn. (p. 58). Architects: Tai Sakuma/Kim/Hartford Design Group, Hartford, Conn. Steel frame: Avenue Welding. Roof and floors: Dynamit Nobel of America. Windows: Duratherm. Skylights: Fisher Skylights, Inc. Entrance door and glazing: The Alumilite Corp. Interior doors: E.H. Friedrick Company. Overhead and kitchen doors: Cookson Doors. Ceilings: Conwed, Go-Bond Building Products. Hardware: Russwin/Emhart Industries, Inc., Richardson (floor hinges). Food service equipment: May Engineering Company. Security: Simplex 2350 Master Time System, Gamewell/Alarmtronics. Elevator: Dover Corp. Handrails: Blumcraft. Exterior lighting: mcPhilbin. Interior lighting: Rambusch. Plumbing accessories: Bradley Corp., Eljer, Sloan Valve Company, Elkay. Heating and air conditioning system: H.B. Smith, Vulcan Radiator, Carrier Corp. Environmental control system: M.C. Power. Carpets: J & J Industries. Furniture: Steelcase, Inc., Griggs International. Blinds: LouverDrape. Curtains: Novel Scenic Studios, Inc.

de Menil House, East Hampton, N.Y. (p. 47). Architects: Gwathmey Siegel & Associates, New York. Aluminum window: Arcadia. Aluminum skylights: Fisher. Custom millwork: Bachmann & Dunbar. Overhead doors: Arm-A-Lite. Pavingslate: Vermont Structural Slate. Black granite: Coldspring Granite. Honduran mahogany flooring: Imperial Floors. Insulation: Johns-Manville. Paint, stains: Cabot's. Hardware: Stanley, Schlag LCN. Kitchen equipment: Sub-Zero, Kitchen Aid, Thermador, Garland. Speed Queen. TV earth station: S-Finder Systems. Lighting controls: Procolite Lite Controls. Lighting: Edison Price, LSI. Plumbing, sanitary: American-Standard, Speakman. Heating: Slant-Fin. Air conditioning: Dunham-Bush. Carpets: V'Soske. Portable lighting: George Kovacs.

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Progressive Architecture

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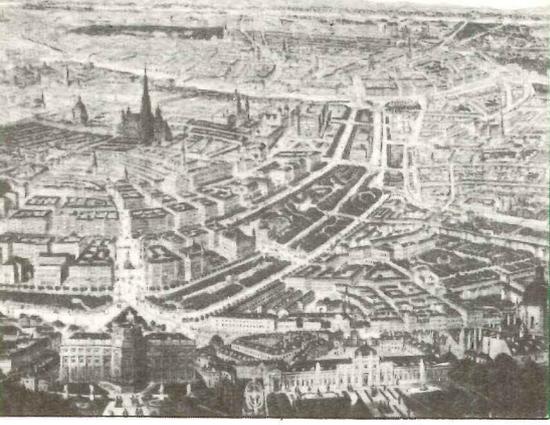
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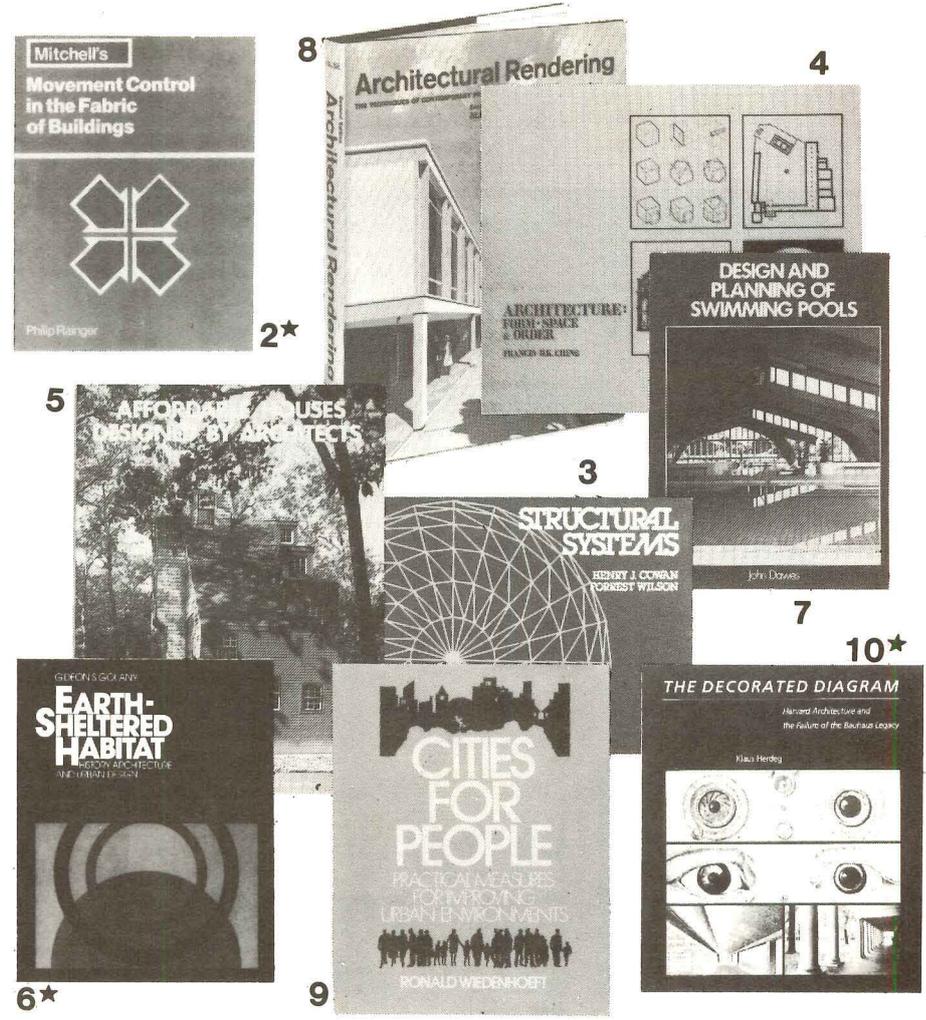
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HOW EXECUTIVES ESCAPE

By JAMES E. BRAHAM

EXECUTIVE CHOICE

- 1 Little Dix Bay Hotel, Virgin Gorda, British Virgin Islands.
- 2 Petit St. Vincent Resort, St. Vincent, Grenadines.
- 3 Kona Village Resort, island of Hawaii.
- 4 Meridian Club, Pine Cay, Turks & Caicos Islands.
- 5 Coco Point Lodge, Barbuda.
- 6 Caneel Bay, St. John, U. S. Virgin Islands.
- 7 Biras Creek, Virgin Gorda, British Virgin Islands.
- 8 Tall Timber, Durango, Colo.
- 9 (tie) Heritage House, Little River, Calif., and Curtain Bluff Hotel, Antigua.
- 10 (tie) Las Cruces Palmilla Hotel & Suites, Baja Peninsula, Mexico, and The Point, Upper Saranac Lake, N.Y.

Sun. Sea. Sand. Seclusion. When the "EEs," (as one New York travel agent calls her favorite "Exhausted Executive" clients) seek to get away from it all, this is what they want.

Not the Hiltons, Hyatts, or Holiday Inns. . . but the hideaways. Those "enchanted small resorts . . . well-managed, intimate hostelries in uniquely private environments . . . in extraordinarily peaceful and aesthetic surroundings," as Andrew Harper describes them in his monthly *Hideaway Report* newsletter.

His "connoisseur's guide to peaceful and unspoiled places" discovers (or revisits) such favorite vacation retreats as:

Tall Timber, a "mountain sanctuary" of a dozen chalets near Durango, Colo., so remote that the only access is by helicopter or aboard a vintage narrow-gauge train. . . .

The **Las Cruces Palmilla Hotel** on Mexico's Baja Peninsula, "the most enchanting seaside sanctuary of its kind on the Pacific Coast. . . ."

Wyoming's **Jenny Lake Lodge**, "the most sensuous National Park lodging enclave in America, its 30 individual log cabins nestled under evergreens at the edge of a wildflowered meadow among the primal peaks of the Grand Tetons. . . ."

The Point, a private estate of eight guest quarters, once the Rockefeller family compound,

tucked away on a wooded peninsula of Upper Saranac Lake, New York, where chef Jim Myhre "presides masterfully over the kitchen, the site and time for each classic repast dictated by the whim of guests. . . ."

The **Hawk Club & Resort** in Pittsfield, Vt., some two dozen chalets "ensconced on the sylvan slopes of five mountains," where "guests may avail themselves of wonderfully outrageous 24-hour 'concierge' service which runs the gamut from breakfast in bed and help with cold-morning starts to grocery shopping and catered gourmet dinners."

It is the Caribbean, however, that is the hotbed of hideaways—particularly for the "exhausted executives," to quote Adrienne Rice of New York's Pisa Brothers travel agency. "My clients basically go south for relaxing. There's nothing cozy on the beaches in our country, everything's so built up. Puerto Rico is like Miami South, the Bahamas are too Americana, and certain parts of Hawaii are like New York City. They are *not* hideaway retreats."

A true hideaway is like the **Petit St. Vincent Resort**, an island unto itself in the Grenadines. A "Robinson Crusoe hideaway," Mr. Harper calls it, "where you can bask in oneness with the sky, the sea, and the blossomy tropical terrain, right from the hammock on the patio of your own stone bungalow."

Andrew Harper (a pen name that allows the 42-year-old one-time Manhattan adman to travel incognito using his real name) recently surveyed his 13,500 subscribers on their favorite vacation resorts in the world. The approximately 2,800 top executives responding selected seven island retreats in the Caribbean (and another in Hawaii) among their top 12 choices (see list).

Although **Little Dix Bay Hotel** (British Virgin Islands) was his readers' top choice, Mr. Harper himself prefers Petit St. Vincent, "the finest small-luxury retreat." There are 22 roomy cottages where, should you desire a mango, a daiquiri, or ice, you "just place your request in the mailbox outside, hoist the yellow signal flag, and in no time a room-service waiter will whisk by on a golf cart to fulfill your order."

His favorite hideaways don't exceed three dozen guest rooms, though he makes an "occasional exception." **Kona Village Resort**, on the island of Hawaii, has 100 thatched bungalows but they are surrounded by some 12,000 acres of tropical jungles and gardens, making it "extremely private."

Little Dix Bay (82 rooms) and **Caneel Bay** (168 rooms or suites on St. John in the U. S. Virgin Islands), the crown jewels of Laurance S. Rockefeller's Rockresorts Inc., are the best-known Caribbean retreats.

The Aga Khan selected Caneel Bay for his honeymoon, and actress Greta ("I want to be alone") Garbo was in her element there. "All she did was stroll the beaches and stay to herself," says one Rockeresorts official. "She was delighted."

While the Caribbean resorts certainly are re-

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mote, they are also accessible. This is one of their appeals, along with reliable weather.

"You can be in New York in the morning and be here drinking pina colodas in late afternoon," says Jennifer Richardson, who helps her husband, Haze, manage Petit St. Vincent. Most of their guests fly commercially to Barbados. From there the resort arranges a short (50-min) charter flight to Union Island, where a 42-ft Grand Banks motor yacht awaits to carry them the final half-hour to PSV, as the regulars call it.

All of these retreats feature grand, sometimes even gourmet, dining—and Mr. Harper looks for those that are owner-managed. "The owner is right there at the front desk, and there tends to be a higher level of personal service."

Activities are up to you. **Coco Point Lodge** (32 rooms on the West Indies island of Barbuda) offers deep-sea fishing, surfing, sailing, water-skiing, trap shooting, horseback riding, and tennis.

"Some people just go all day; they never stop," notes reservations manager Duncan Burns. "Some people just plant themselves on the beach with a stack of books and do nothing. They get up and go to lunch, then go back and read, get up and go to dinner, go back and read. Some just like to sit."

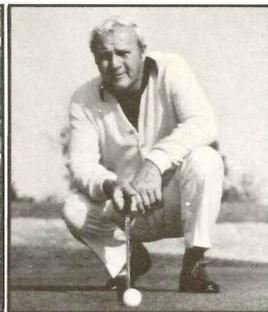
Such privacy, rest, and quiet are not for everyone. "Not for glitzy people at all, not for entertainment," the Rockresorts official says. "I remember one guy at Caneel Bay complaining: 'Geez, this place is dull. I've got to get out of here!'"

At most of these resorts the guests dress casually. "Most come to lunch in a bathing suit and a shirt, with no pretension at all," Mr. Burns observes of Coco Point. He contrasts this with **Curtain Bluff Hotel**, a tennis-oriented resort on Antigua that is "one of the nicest hotels in the world" but whose country-club atmosphere calls for jackets and ties.

The typical hideaway guests are husband and wife; the relatively few "children" ordinarily are college students, during Christmas vacation. The average stay is a week, and hideaway prices generally range from \$150 to \$250 a day for two, with all meals and tipping included. This stretches to \$300 and more in the Caribbean in the winter.

Publicizing these hideaways nationally is enough to make some regular guests choke on their pina colodas; they have come to regard the retreat as their special secret. When another national magazine painted Petit St. Vincent as the ultimate getaway, guests descended upon the Richardsons: "Did you see this?" they demanded. "You can't do this. My God, everybody will be down here!"

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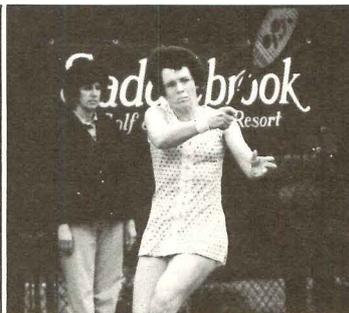
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Architectural Design Position: The Department of Architecture at Cornell University has both non-tenure track and tenure track faculty positions available beginning Fall 1984 in Architectural Design. For individuals qualified to teach architectural design, as well as courses in another area of curriculum, such as technology, architectural theory, profession of architecture, design communications, etc. Appointment criteria: teaching experience, scholarly preparation, creative work in design or research, developed theoretical orientation in areas of teaching specialty. Academic scholarship and administration are obligations of these positions. Rank and salary commensurate with experience. Submit applications and curriculum vitae by December 15, 1983 to: Jerry A. Wells, Chairman, Department of Architecture, 143 East Sibley Hall, Cornell University, Ithaca, New York 14853. Cornell University is an Equal Opportunity/Affirmative Action Employer.

Architecture Faculty Positions—Department of Architecture, Ball State University is seeking outstanding candidates for full-time tenure track and temporary faculty positions in Architecture, for undergraduate and graduate programs, effective September, 1984. Candidates should be able to teach architectural design and at least in one of the following areas: Structures, Architectural History and/or Theory, Environmental Systems, Graphics, Computer Applications, Building Technology, and Photography, as well as actively pursue practice and/or research and scholarly activities. Most appointments will be at the Assistant Professor (or Associate Professor in exceptional circumstances) level. Registration and terminal degree preferred. Rank and salary dependent upon qualifications. Applicants should send letters of inquiry, curriculum vita, transcripts, and three letters of reference. Applications must be postmarked by December 30, 1983. Apply to: Professor Marvin Rosenman, Chairman, Department of Architecture, College of Architecture and Planning, Ball State University, Muncie, Indiana 47306. Women, minorities, handicapped, and Vietnam veterans are invited to apply. Ball State University Practices Equal Opportunity in Education and Employment.

Architectural Graphics—Experienced Arch. or Ind. Designer with a min. 6 yrs. exp. able to organize drawings & specs, estimates. Salary \$30's. Submit resume to Bill Cannan & Co., 2112 Broadway, NYC 10023.

Architectural Technology Positions: The Department of Architecture at Cornell University is seeking candidates at Assistant or Associate Professor level for tenure track positions in the technology area of the curriculum. Candidates should be qualified to teach in at least two of the following areas: building materials and methods, site planning, lighting and acoustics, and energy analysis and thermal design. Positions require collaboration with design faculty in studios. Appointment criteria: previous teaching experience; professional degree at the graduate level; knowledge of computer applications in architectural technology; professional experience and research in the field. Academic scholarship and administration are obligations of these positions. Rank and salary are commensurate with experience. Curriculum vitae and supporting materials must be submitted by January 15, 1984 to: Jerry A. Wells, Chairman, Department of Architecture, 143 East Sibley Hall, Cornell University, Ithaca, New York 14853. Cornell University is an Equal Opportunity/Affirmative Action Employer.

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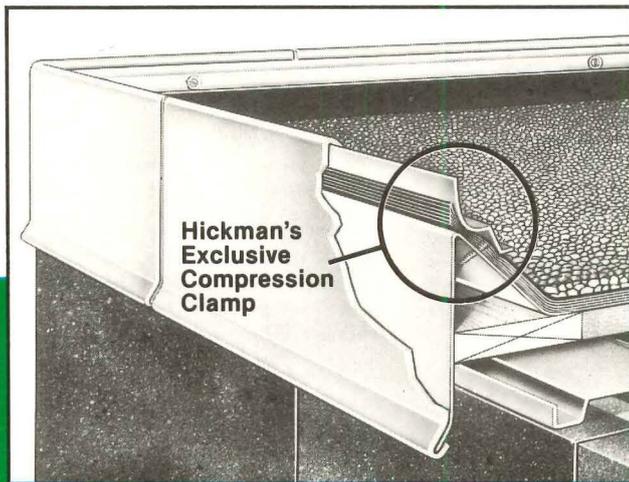
Department of Architecture, University of Florida, anticipates three tenure-track positions for fall '84 in Assistant or Associate Professor rank, to teach in undergraduate and graduate design studios and at least one of the following: structures, environmental technology, construction, preservation, history/theory. Candidates should have MArch or Ph.D., computer literacy with architectural applications, professional registration and 3-5 years practical experience. UF is an AA/EEO employer. Send resumes and names of three references before February 1, 1984, to Department of Architecture, 231 ARCH, University of Florida, Gainesville, FL 32611.

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President: The UCLA School of Architecture and Urban Planning has an opening for the position of President of the Urban Innovations Group, the practice arm of the School. Candidates must have an academic background in architecture or urban planning, preferably both, as well as professional experience including direction and management of design and research projects in architecture/urban design or planning. Must be knowledgeable about business development in public and private sectors including government research organizations. Administrative duties include organization and direction of the firm and business development. Teaching responsibilities include one class per quarter as well as a clinical teaching role. Candidates should apply to Acting Dean Samuel Aroni, Graduate School of Architecture and

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University of Illinois at Urbana-Champaign— The School of Architecture is seeking applications for full-time, nine-month positions to begin 21 August 1984: Design—Assistant Professor and Associate Professor levels, tenure-track and tenured, to teach undergraduate or graduate Architectural Design studios as well as seminars or related elective courses. Qualifications: Advanced professional degree in architecture and professional registration is required. Teaching experience desirable. Send information regarding position to R. Alan Forrester, Director, School of Architecture, 608 E. Lorado Taft Drive, Champaign, IL 61820 (217-333-1330). Housing—Assistant or Associate Professor, tenure-track or tenured. A unique joint appointment between the School of Architecture and the Housing Research and Development Program. Minimum qualifications: (1) Completion of terminal degree in architecture, planning, or related field; (2) ability to teach graduate-level studios and seminars in housing; (3) ability to conduct research in an area of housing, e.g. environment-behavior issues, special user groups. Send information demonstrating both research and teaching ability to: James R. Anderson, Housing Research and Development Program, 1204 W. Nevada, Urbana, IL 61801 (217-333-1330). Salary and rank of all positions dependent on qualifications. To receive full consideration, submit resume together with names of three references by January 30, 1984. The University of Illinois is an AA-EOE.

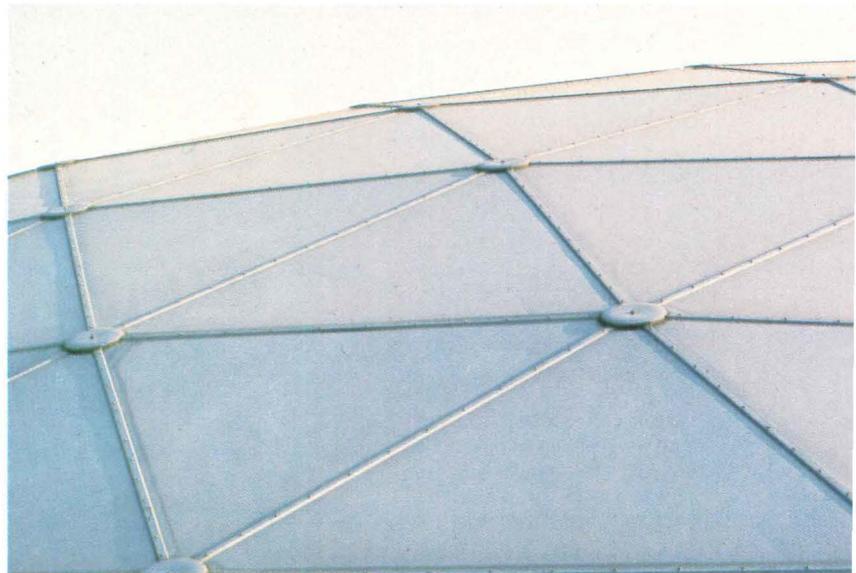
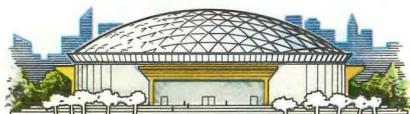
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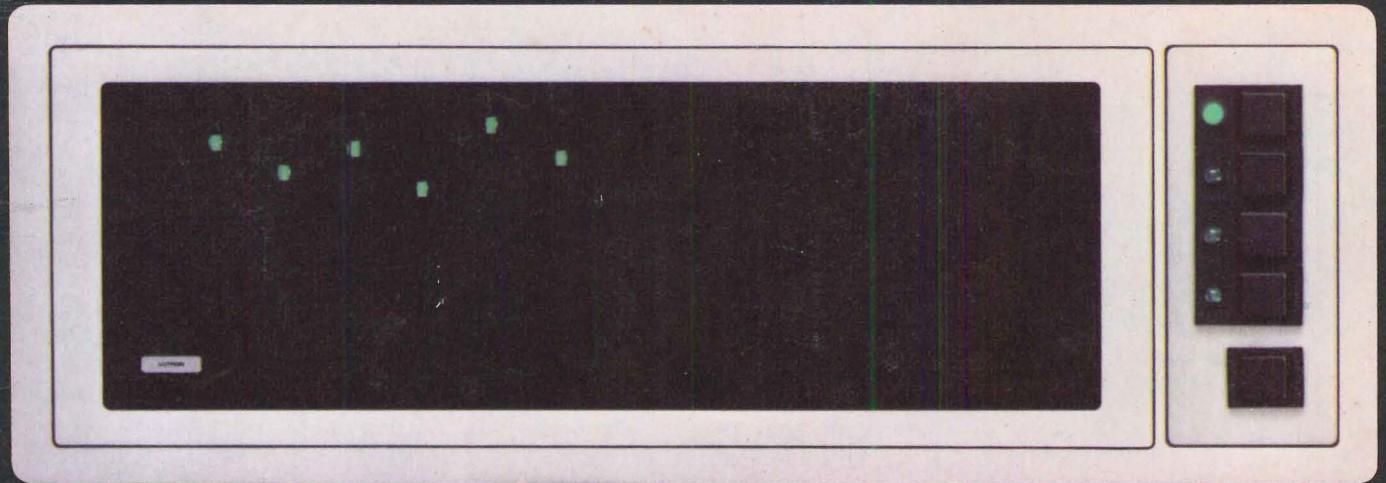
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