


# Progressive Architecture



November 1980

Remodeling and reuse



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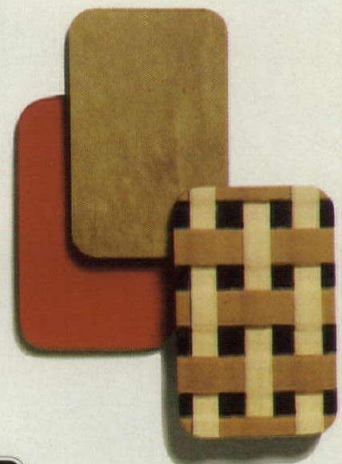


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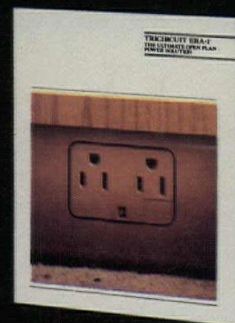
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☆ABP MPA

**7 Editorial: Reuse for downtowns?****Remodeling and reuse****87 Introduction: Rating reuse**

The practice of reusing existing buildings is growing, with varying degrees of success. Shown are several commercial projects, with critical evaluations.

**88 Generation gap**

Architects Lorenzi, Dodds & Gunnill have adapted five late 19th- and early 20th-Century Classic Revival buildings to form The Bank Center, a specialty mall in Pittsburgh.

**92 Richardson on the half shell**

In Hartford, Ct, an 1870s building designed by H.H. Richardson is returned to mixed use by Stecker/LaBau, with stores at street level and apartments above.

**96 Foiled again**

Walker/Group's renovation of a bank interior for Citibank, previously remodeled by McKim, Mead & White, incorporates modern banking methods into a traditional space.

**100 Cash on the line**

The Cincinnati Union Terminal building, once threatened with demolition, has been saved by conversion to a mixed-use complex, with restoration by Schofield & Schofield.

**106 Under glass**

Arcade Square, a restoration/remodeling by Lorenz & Williams of five rundown buildings facing Courthouse Square, is expected to generate new activity in Downtown Dayton.

**112 Assets secured**

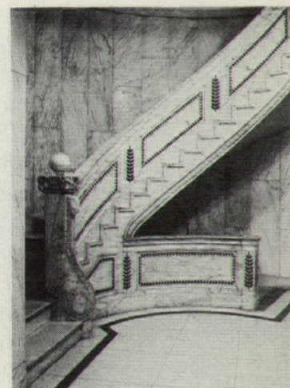
Renovation of a five-story building by Charles Herbert & Associates for Valley National Bank, Des Moines, restores Art Deco design and detail.

**Technics****123 Specifications clinic: The unique product and public bidding laws****124 Acorns to oaks**

Profiles of six manufacturers of diverse products outline the companies' growth, from the ideas of the men responsible for their beginnings to the present.

**Departments**

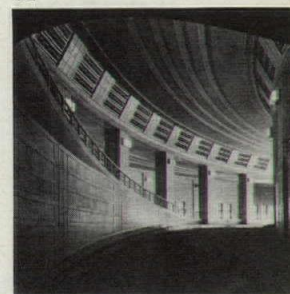
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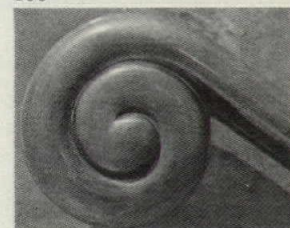
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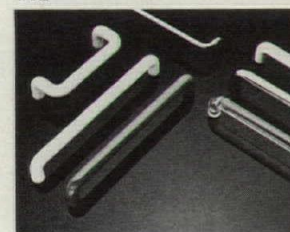
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100



112



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**Cover:** centerpiece in the rotunda, Arcade Square in Dayton, Oh (p. 106), by Lorenz & Williams. Photo: Bill Swartz, Gregory Glass.

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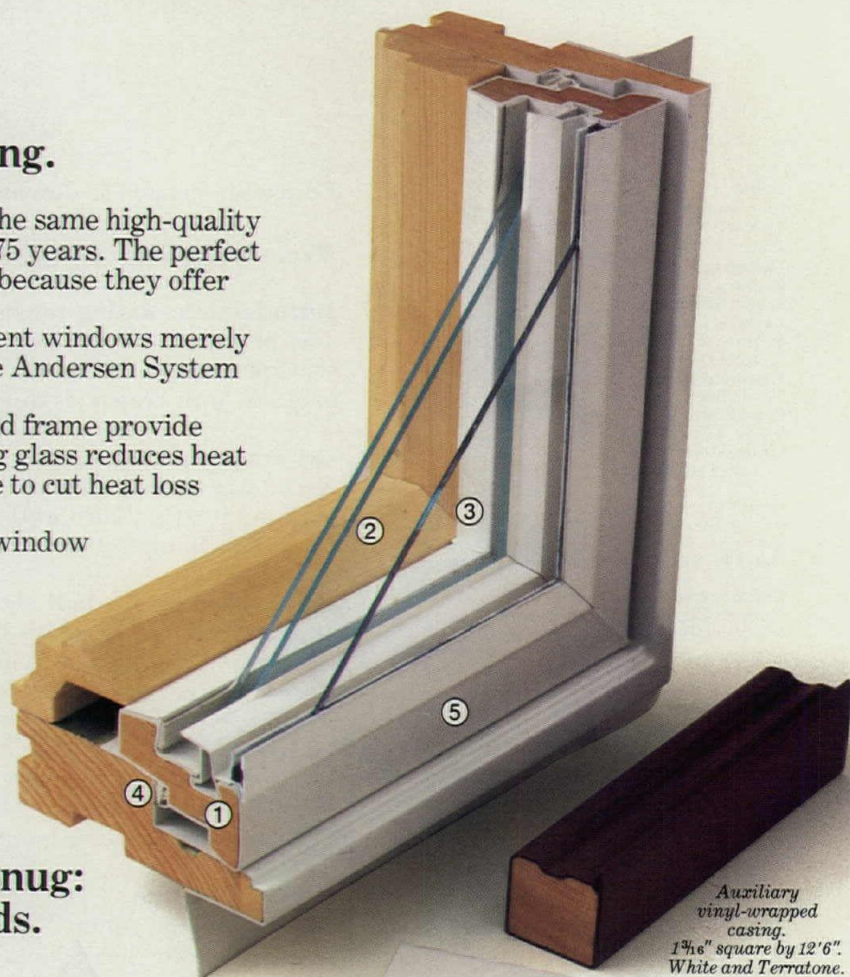
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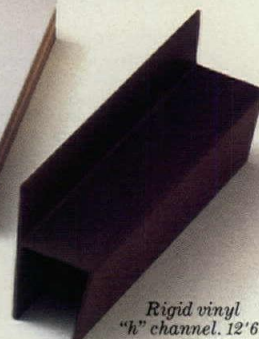
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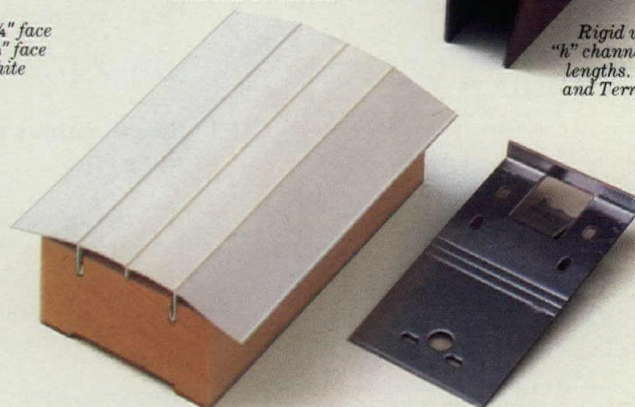


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# Reuse for downtowns?

**The reuse and "extended use" of our architectural heritage depends on the fate of the urban cores—large and small—where much of it is located.**

Our countrysides are dotted with fine farmhouses and barns, country estates and campuses, the future of which is in doubt. But the vast majority of our architecturally valuable buildings suitable for preservation and reuse are in the central parts of our cities and towns. Much of the construction of the late 1800s and early 1900s took place in these urban cores, and that is where economic change has divorced so many substantial structures from their original functions. Hence the potential for economic return or public amenity through reuse is largely tied to the economic futures of these downtown cores.

It is encouraging to consider that this dependence is mutual. The economic revival of urban areas from Brooklyn to San Francisco is linked in many cases to the architectural and urbanistic quality of what has been built there, and many smaller towns have been revived almost solely because of their fine buildings. But it is hard to be optimistic about the cities.

For decades, the hopes of most architects and planners for renewal of city cores have been counteracted by a concatenation of government and business policies. Now, however, a return to urban living would logically be predicted on the basis of several interrelated factors: fuel shortages, diminishing standard of living, statistical decline of the child-centered family unit, ecology-based regulations, and reduction in readily accessible land for development. Yet preliminary figures for the 1970 census, even allowing for an unconscionable undercounting of the urban poor, seem to indicate a continued drain of people away from urban cores—and even from the inner suburbs of the old Northern cities—toward the expanding edges. In the Sun Belt, center cities may still be growing, but growth is more rapid in their suburbs.

Of course, raw figures on numbers of people don't present a complete picture. Many of the urban cores that the census tells us are shrinking are the sites of vast amounts of new construction investment—for offices, hotels, convention centers, and shopping centers. And these same centers are the places with the severest shortages of housing (which can be seen as paradoxical—or as one cause of the declining numbers).

What is the evidence from the sites of remodeling-reuse efforts such as those presented in this issue? Over the past few months I have visited the cities where most of them are located. I have to admit that the districts where some are situated do not appear very reassuring.

Downtown Dayton, for instance, is quite attractive, physically. It stands within a bend of a river that is generally pleasant to look at, and it has an excellent stock of buildings. Just

across from the Dayton Arcade (p. 106) is an exceptional Greek Revival courthouse (now a historical museum); facing that on another side, an office building by I.M. Pei & Partners is nearing completion; down the block is a fine turn-of-the-century Beaux-Arts post office turned cultural center; around the corner, another excellent old commercial building is being restored. There are lots of other good buildings ripe for renovation. And there are serviceable new plazas, an up-to-date convention center, capacious parking garages, and an extensive surface transit system.

Why, then, have any doubts? Without investigating, I can pass along some first-hand observations: there seems to be hardly anyone in the downtown area except white-collar workers and some shoppers; the shoppers as a group don't look very prosperous, and the stores show little indication of recent investment. It appears that the middle class of the Dayton area comes downtown only when it is necessary. Can a development such as Arcade Square change this adverse situation? Maybe, in combination with other magnets, it can encourage more area residents to stay downtown evenings or weekends. Will any combination of amenities inspire out-of-towners to stay in Dayton over a weekend? Not very likely.

What's true of Dayton is more or less accurate for Hartford and Des Moines, as well. Cities such as Cincinnati or Pittsburgh obviously present different circumstances; urban cores of this size have substantial and irreplaceable masses of economic and cultural activities—and either of these two cities would be a rewarding place to spend a weekend. The question in these places is not whether their cores represent enough economic potential, but rather whether the individual projects are located and designed to take advantage of it.

New York, the sixth city represented here, is of course in a class by itself. If it fails, the loss will be felt by the world.

The point is that we cannot afford, culturally, to lose a New York, or a Cincinnati, or a Pittsburgh. Nor should we permit smaller centers such as Dayton to decline to mere clusters of offices among parking lots, on the suburban model. The clients who have sponsored projects such as those shown here are committing their resources to the cities. If our society as a whole does not do the same, we shall all be the losers.

*John Morris Diefen*

## Testing realities

A.D. Skolnik's editorial on "Laboratory Accreditation" (P/A, Aug. 1980, p. 89) was timely and I commend his support on the Department of Commerce's National Voluntary Laboratory Program. We participate in NVLAP as it relates to thermal performance.

It is important that the construction industry support these accreditation programs. We have a responsibility to furnish accurate, reliable performance data obtained by testing materials and assemblies as they are to be used. Performance predictions based on calculations will no longer suffice in today's environment where conservation is such a necessity.

Thermal testing in our large Guarded Hot Box (ASTM C 236) over the last five to six years has proven that only full-scale—"as built"—tests will produce usable performance data. Tests have indicated, in some cases, that performance of an assembly is only half as good as calculations would indicate. These are extremes, but emphasize the necessity for requiring tested values in codes and specifications.

The large-scale testing capability in the U.S. is small, but growing. The NVLAP program is serving as a stimulus to more quality test work.

Marvin K. Snyder  
Research Manager  
Butler Manufacturing Company  
Kansas City, Mo

## The Schindler/Neutra rift

Just a minor correction to an otherwise fine review by Barbara Goldstein of Esther McCoy's latest book, *Vienna to Los Angeles: Two Journeys* (P/A, Aug. 1980, p. 101). One of Mrs. McCoy's purposes in doing the book was to clear away some of the fictions that have overgrown the personal and professional relationship of R.M. Schindler and Richard Neutra. Among these is the story, reiterated by Ms. Goldstein, that Neutra's supplanting Schindler as the Lovells' architect caused the breakup of their friendship. Mrs. McCoy writes quite clearly (on page 63), "After Schindler left the hospital he told me the cause of the break in 1930. He made the point that the Lovell house commission was to Neutra an act of self-survival, but the removal of his name from their League of Nations entry was an act of malice." The act of self-survival "put a strain on the friendship"; the act of malice ended it.

Incidentally, the price of the book was changed in January from that listed in

the review to \$17.50 for the hardcover edition and \$10.95 for the paperback.

David Travers  
Arts & Architecture Press  
Santa Monica, Ca

## In search of Great Architecture

Your July editorial, "The delight deficit," touches upon an important issue in architecture today—that of Great Architecture. I am not sure, yet, what constitutes great architecture at this time. I think that no architect is producing great architecture today—i.e., architecture which would be universally recognized as great and which would be so recognized for longer than a "season" or two. Perhaps we are at an inevitable point of the whole process; the Heroes, who endured so long, finally died, leaving a vacuum which is, at the moment, unfillable. Perhaps enough time has simply not elapsed since their deaths. In addition, we have so many extraordinary technological toys available to us that it is often difficult not to play instead of being truly serious. Borromini, Michelangelo, and the early architects were, by comparison, severely limited in terms of systems and materials available to them. Maybe these limitations caused them to devote more effort to the careful manipulation of forms, light, space, etc., thus resulting in their incredible and enduring works.

Somehow, our current preoccupation with wit and allusion (not to mention illusion) cannot take the place of true quality; but it can mask an architect's inability to produce true quality. (One can, at least, be amusing.)

There is, of course, the old argument of economic constraints, and it is a justifiable one in some instances; but it does not always hold water. The same folks who shop on Rodeo Drive, Bendel, Tiffany, Harry Winston, etc., can afford enormous sums for architecture—and yet where are the results? (It might be interesting for P/A to do a full-length article on the homes of the super-rich; after all, these are frequently the same power-persons who make the final decisions for much of the corporate architecture of today.) Very few of P/A's Design Awards and of the Record Houses appear to be designed for the super-rich.

Probably the most brilliant architect practicing today is Philip Johnson. Brilliant, but not great—as he would be the first to admit. Yet he does seem to be close to doing some very extraordinary buildings. He has probably come as close as any contemporary architect has to doing buildings which share the strength of some of those buildings of the past.

It is so easy to be seduced by "complexity," technological daring, wit and allusion, and new materials, that one could spend his entire career just playing with this overwhelming palette without ever committing himself to concentrating on producing works that conform to Vitruvius's notion of "Firmness, Commodity, and Delight." I certainly like to play as much as anyone, but there lurks the feeling that Architecture with

a big "A" demands much, much more. As the late Marvin Goody, FAIA, said to me when I was a student of his at MIT: "You know, Zoller, it's hard to do good architecture." How true. Clever, witty, slick, cute, pretty, complicated, fast-tracked, computer-drawn, post-modern, competent, economical, tallest, structurally innovative, seem to be fairly easy to come by; but "good"? And if "good" is hard to come by, how about "GREAT"? Pretty nigh unto impossible; at least by all of the evidence as presented so well by all of the magazines. If you have a list of works that you think qualify as truly great (contemporary works by living architects), I should certainly be interested in seeing these works in the pages of P/A.

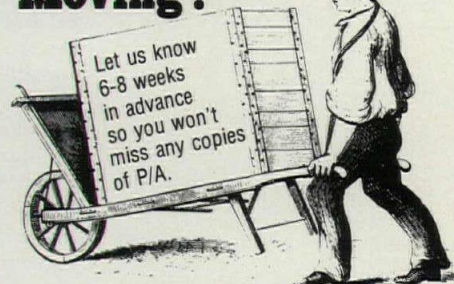
William C. Zoller, AIA  
Zoller Associates  
Sarasota, Fl

[We are not seeing any Villa Savoyes or Johnson's Wax Headquarters these days—or we're failing to recognize them when we do. Just as it is easy to find great *old* works, it seems easy to find great *small* works. That suggests we are at the formative stages of a phase that has not yet produced large-scaled examples.—Editors]

## Correction

We regret that Avinash Malhotra's name was misspelled in the credits for the Linda Hopp store (Aug. 1980, p. 77). Also Mr. Malhotra should be credited as co-architect with Robert Rodin and as architect of record.

## Moving?



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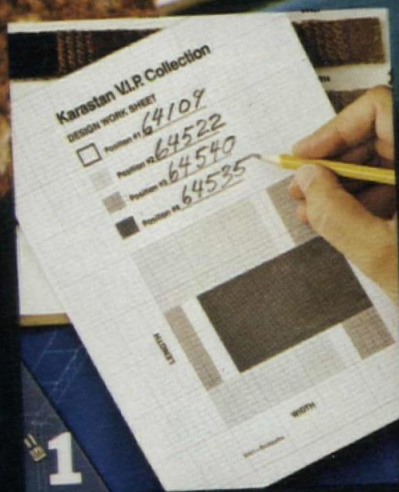
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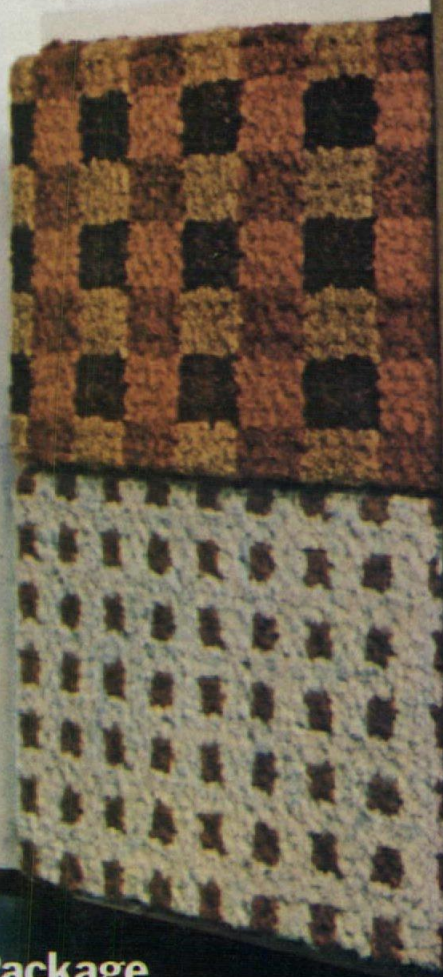
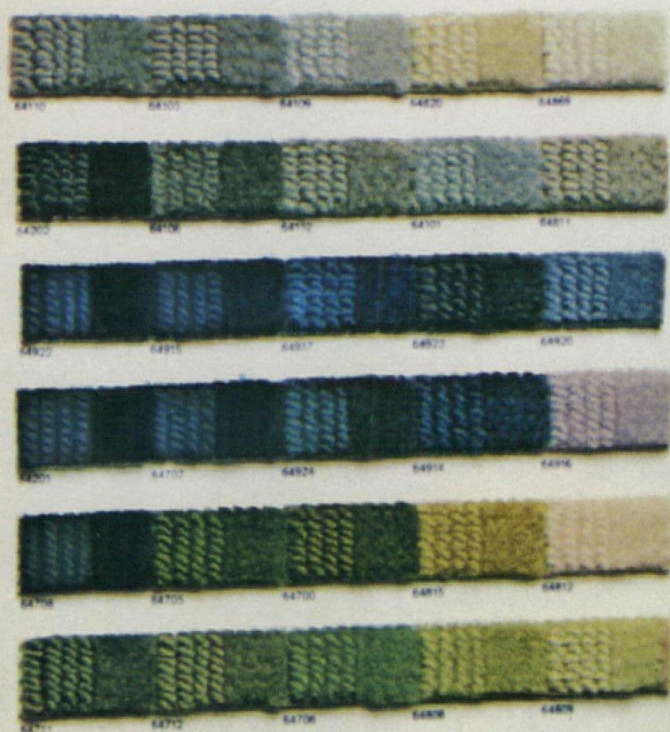
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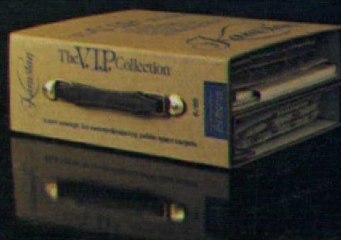
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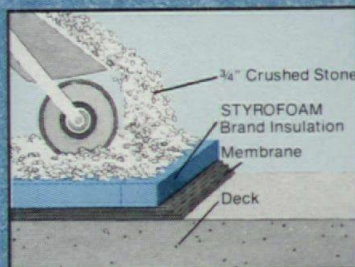
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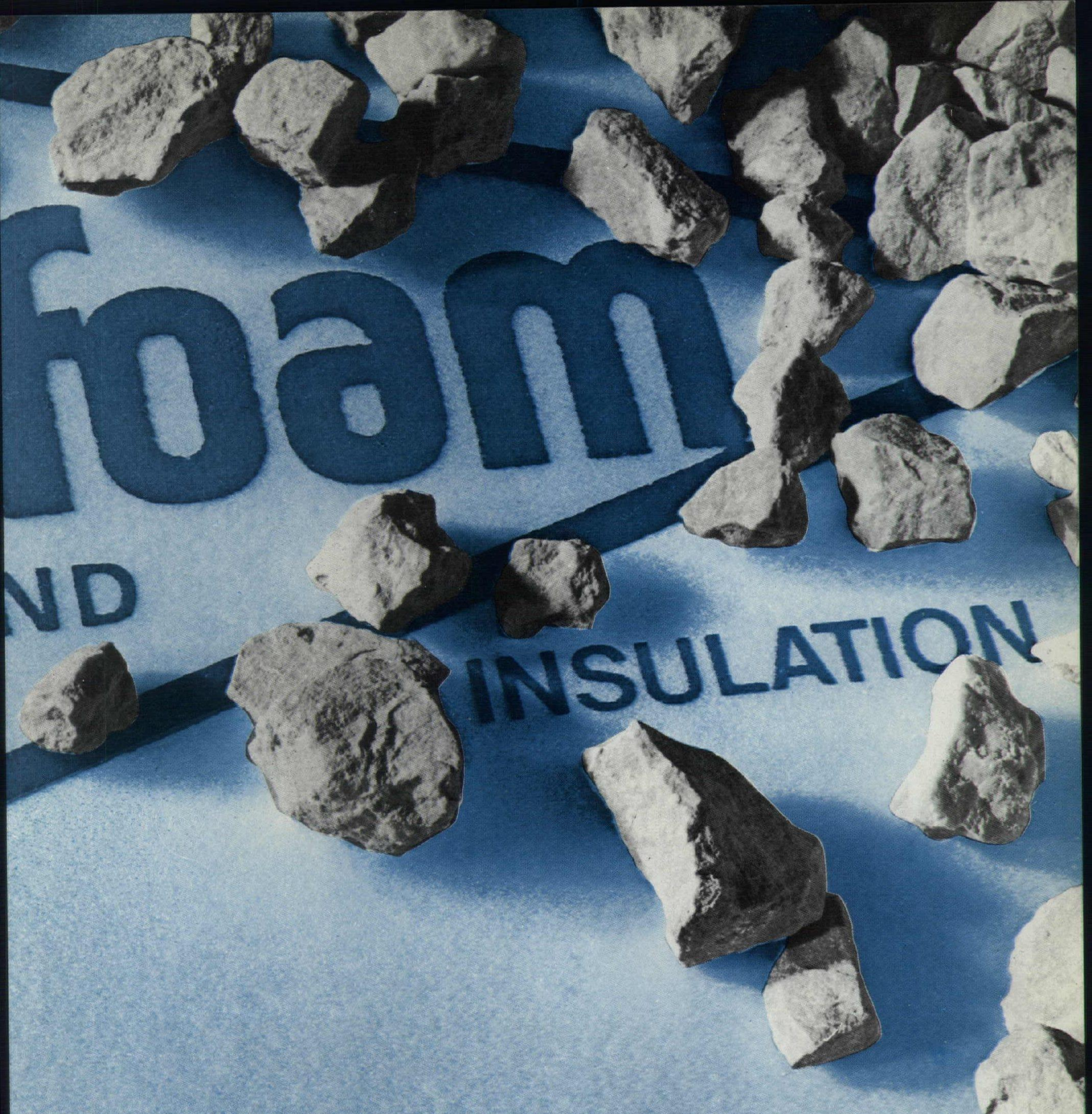
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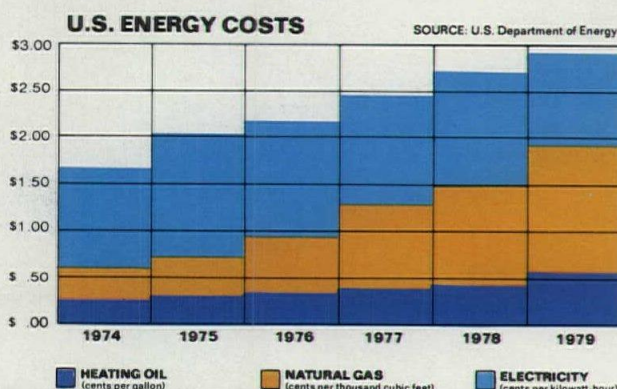
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The StarTherm building consumed 68% less energy than the conventional building, resulting in an annual dollar savings of at least \$1,839. And when you consider the current rapid inflation in energy costs, this savings will be even more significant to the building owner 20 years from now.

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**Progressive Architecture** and **NEOCON** announce a new competition recognizing outstanding furniture and lighting design proposals, not yet associated with any manufacturer. The competition is intended to give the design profession a forum to express ideas about the next generation of furniture design. Designers are encouraged to consider the aesthetic and ideological implications for furniture design implied by the current concerns within architecture and other design disciplines. Physical feasibility must be considered, but the design need not be constrained by existing production or marketing practices.

**Winning projects** will be published in the May issue of *P/A* and displayed at **NEOCON 13**, the annual interior design products show at Chicago's Merchandise Mart, June 14-19, 1981. Awards will be presented to winners in an evening program attended by press, designers, and **NEOCON** manufacturers. A traveling exhibit of winning projects to major cities is also planned.

In addition to the exposure afforded the submissions through *P/A* and **NEOCON**, the competition will encourage further discourse between the entrants and respected furniture producers. Any ongoing discussions will, of course, be up to the individual designers and manufacturers, but potential benefit to both is foreseen.

**Submissions** are invited in all categories including chairs, seating systems and sofas, tables, desks and work stations, storage systems, lighting and miscellaneous furniture pieces. Designations of **award** and **citation** may be made by the invited jury, based on overall excellence and advances in the art.

**Emilio Ambasz**, architect, graphic and industrial designer, former curator of design at The Museum of Modern Art, New York;

**Martin Filler**, editor, *House and Garden*, New York;

**Mildred S. Friedman**, design curator, Walker Art Center, Minneapolis, and editor, *Design Quarterly*;

**Michael Graves**, FAIA, architect and Professor of Architecture at Princeton University;

**Lella Vignelli**, architect and designer, Vignelli Associates and Vignelli Design, New York.

**Judging** will take place in New York City during the month of February. Winners will be notified — confidentially — before March 15. Public announcement of the winners will be made at the presentation ceremony at **NEOCON 13** and in the May 1981 issue of *P/A*. *P/A* will arrange for coverage of winning entries in national and local press.

#### **Eligibility**

1 Architects, interior designers, industrial designers, and design students from all countries may enter one or more submissions.

2 Design must be original, not known to be substantially identical to any existing product design. (continued on next page)

# Progressive Architecture and NEOCON

announce their first

# International Conceptual Furniture Competition

## Entry form:

### International Conceptual Furniture Competition

Please fill out all parts and submit, intact, with each entry (see paragraph 10 of instructions). Use typewriter, please. Copies of this form may be used.

Entrant:

Address:

Entrant phone number:

Category:

Entrant:

Address:

Designer(s) responsible for this submission (identify individual roles if appropriate):

I confirm that the attached entry meets eligibility requirements (paragraphs 1-4) and that stipulations of publication agreement (paragraphs 5-6) will be met.  
I verify that the submission is **entirely** the work of those listed on this form (or an attached list as necessary).

Signature \_\_\_\_\_

Name (typed) \_\_\_\_\_

### Furniture Competition

### Progressive Architecture

600 Summer Street, Stamford, CT 06904

Your submission has been received and assigned number:

Entrant:

Address:

(Receipt)

3 Designer must not be under contract to or in negotiation with any manufacturer for this design. Design is not to be submitted to any manufacturer until after P/A announces winners.

4 Design must not have been executed for academic credit.

#### Publication agreement

5 If the submission should win, the entrant agrees to make available further information, original drawings or model photographs as necessary, for publication in the May 1981 P/A and exhibition at NEOCON in Chicago and other major cities.

6 P/A retains the rights to first publication of winning designs. Designer retains rights to actual design.

#### Submission requirements

7 Drawing(s) and/or model photo(s) of the design should be mounted on *one side only* of one 20" x 30" foamcore board presented horizontally.

8 There are no limits to the number of illustrations mounted on the board. No actual models will be accepted.

9 Each submission *must include* a 5" x 7" index card mounted on the front side of the board with the following information typed on it: intended dimensions of the piece of furniture, color(s), materials, components, brief description of important features, design assumptions and intentions. This information is to be presented in English.

10 Each submission must be accompanied by an entry form, to be found on this page. Reproductions of this form are acceptable. All sections must be filled out (by typewriter, please). Insert entire form into *unsealed* envelope taped to *back of submission board*. P/A will seal stub of entry form in envelope before judging.

11 For purposes of jury procedure only, projects are to be assigned *by the entrant* to a category on entry form. Please identify each entry as one of the following: Chair, Seating System, Sofa, Table, Desk, Work Station, Storage System, Lighting. If necessary, the category "*Miscellaneous*" may be designated.

12 Entry fee of \$10 must accompany each submission, inserted into *unsealed* envelope containing entry form (see 10 above). Make check or money order (no cash, please) payable to *Progressive Architecture*.

13 To maintain anonymity, no identification of the entrant may appear on any part of the submission, except on entry form. Designer should attach list of collaborators to be credited as necessary.

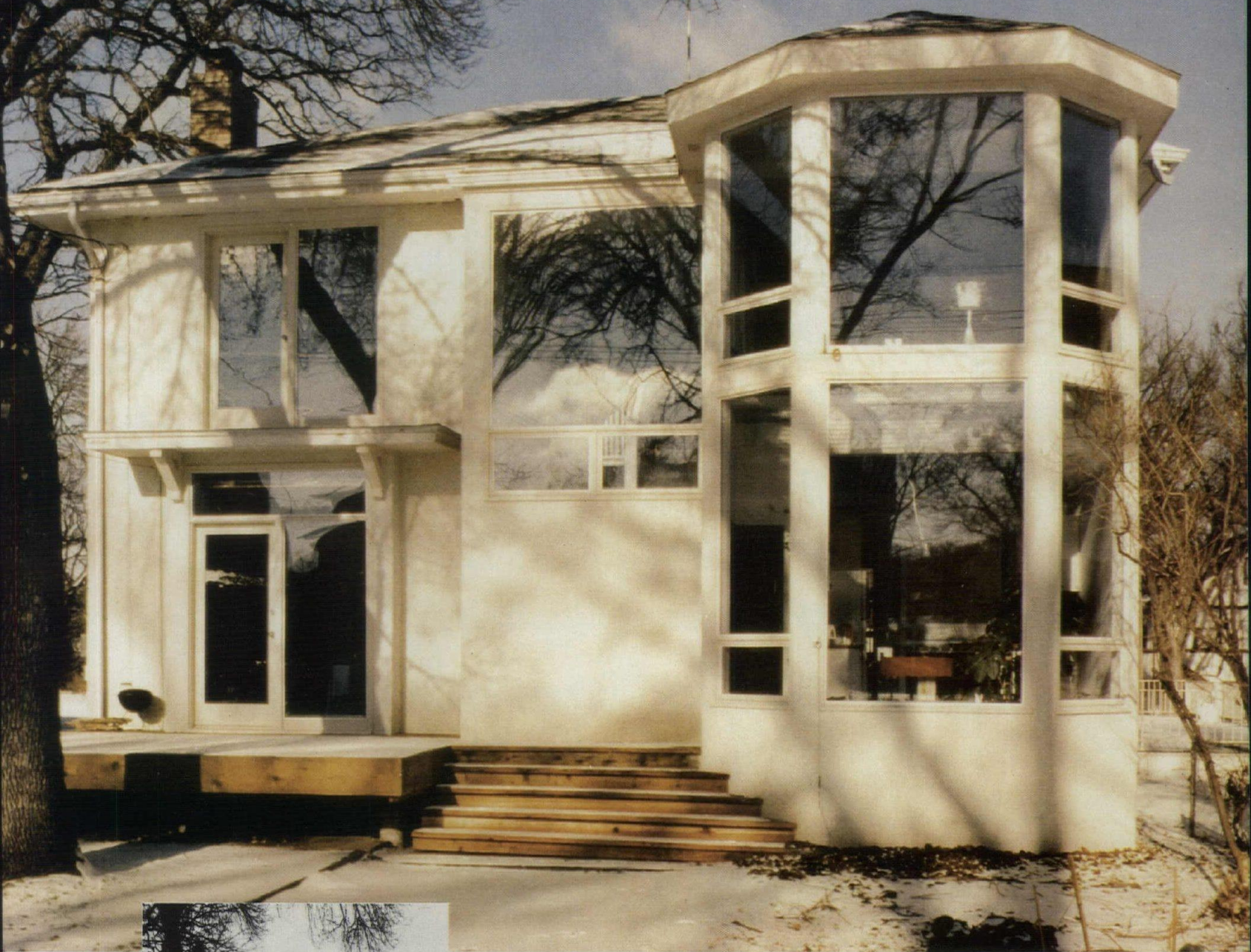
14 Submissions become the property of P/A and *will not be returned*.

15 **Deadline for mailing** is January 26, 1981. Other methods of delivery are acceptable. Entries must show postmark or other evidence of being en route by deadline. Hand-delivered entries must be received at the address shown here by January 26. In any case, entries sent by mail or other means not received at P/A by February 13, 1981, will be disqualified.

#### Address entries to:

International Conceptual Furniture Competition  
Progressive Architecture  
600 Summer Street  
Stamford, CT 06904

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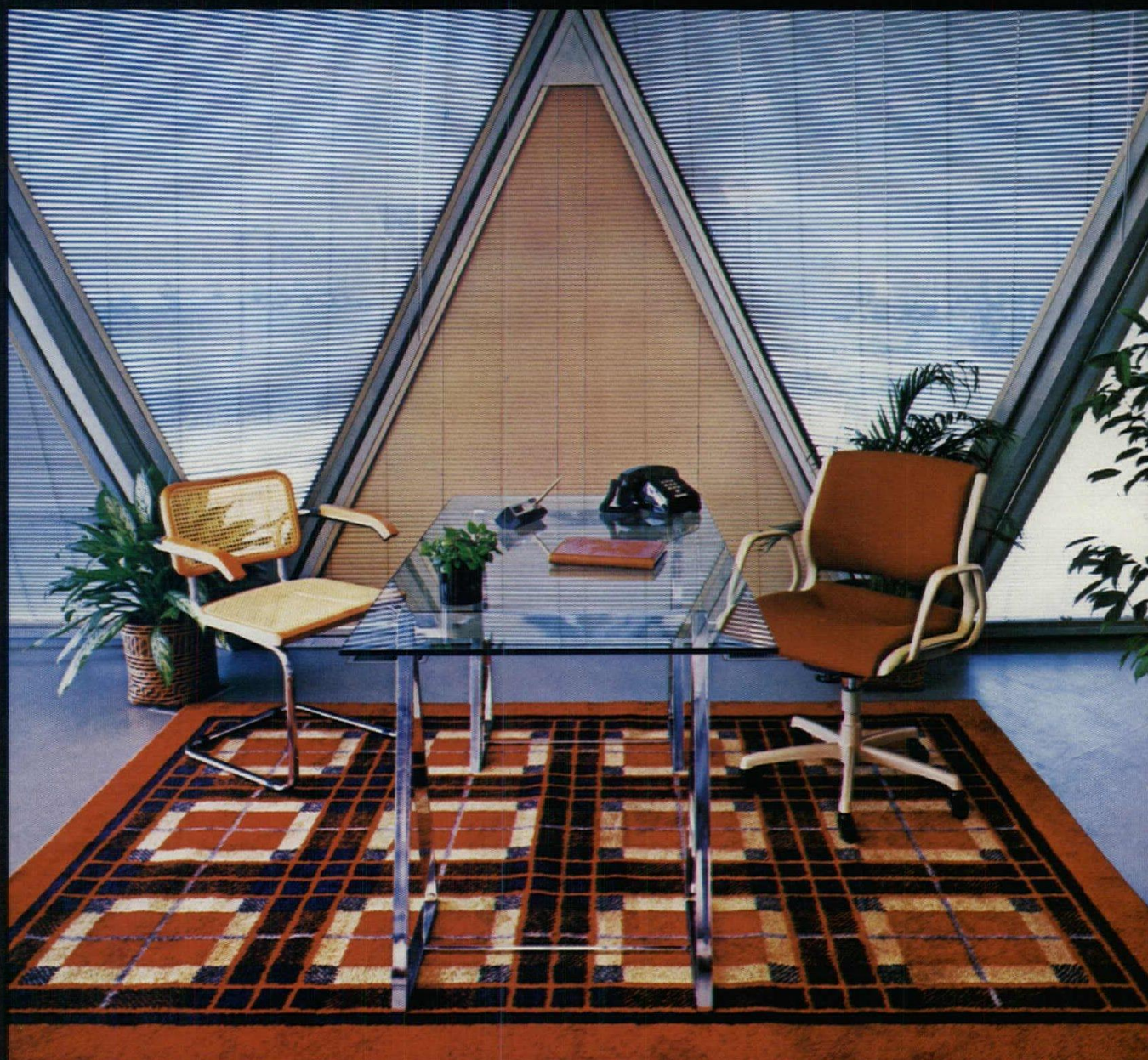
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# PA News report

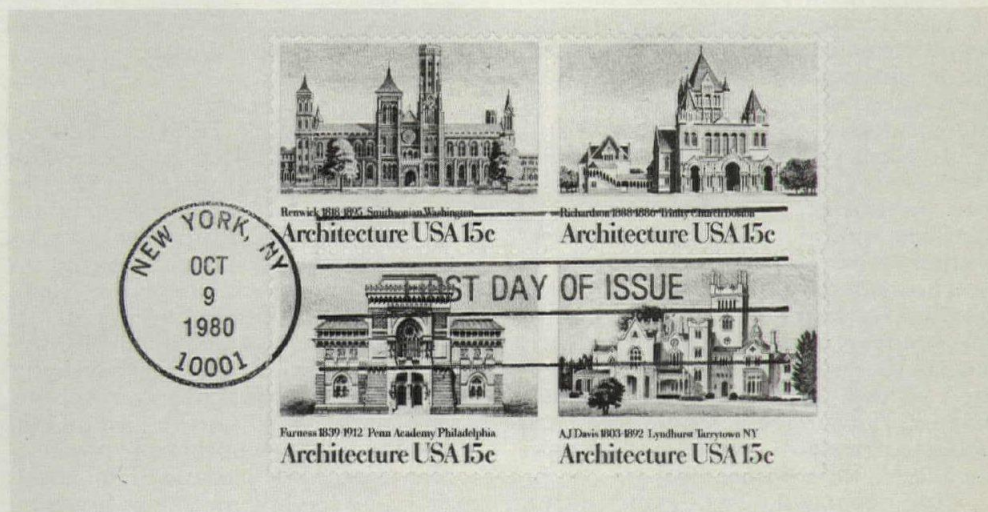
## Trust and the Big Apple

Only in New York and all on the same program at the Waldorf: Tammy Grimes, fresh from her new stardom in "42nd Street," Barbara Cook direct from her Carnegie Hall performance, the cast of the Tony Award-winning "Ain't Misbehavin'," and the creators of the hit song "New York, New York" playing and singing it themselves. This extravaganza in early October wasn't a \$1000-a-plate dinner for a presidential hopeful. It was the opening of the National Trust for Historic Preservation's 34th annual meeting, which set an all-time record with 2080 in attendance.

If the beginning, which was master-minded primarily by New York City Landmarks Preservation Commission chairman Kent Barwick and conceived and directed by Anthony Wood and David Framberger, got off with a glamorous and wildly enthusiastically received start, the rest of the meeting settled into serious business.

One of the first matters on the agenda was the presentation of the Trust's prestigious—and only—award, the Crowninshield. Chairman of the Board Carlisle H. Humelfine bestowed the honor on Drs. Ernest Allen Connally and William J. Murtagh. Dr. Connally is secretary-general of the International Council on Monuments and Sites and was recognized for his 13 years as head of the Office of Archeology and Historic Preservation, which was reorganized in 1978 into HCRS (Heritage Conservation and Recreation Service). Dr. Murtagh, who is currently director of the graduate program in Historic Preservation at Columbia University, was cited for his 13 years as keeper of the National Register of Historic Places.

In honor of the location of the meeting, eight New York City structures were announced by HCRS's Hope T. Moore for listing on the National Register. They were: The Surrogate's Court, the Chamber of Commerce, the Tiffany Building, Grace Church, the Henry F. Sinclair House, National City Bank, the Hamilton Fish House, and the Lorillard-Snuff Mill in the New York Botanical Gardens in the Bronx. In addition, the U.S. Postal Service announced the second series of stamps in the American Architecture series. The edition of four, designed by Walter Richards of New Canaan, Ct, includes



Commemorative postage stamps.

the original building of the Smithsonian Institution in Washington, DC (James Renwick), Trinity Church in Boston (H.H. Richardson), Pennsylvania Academy of Fine Arts in Philadelphia (Frank Furness), and Lyndhurst in Tarrytown, NY (Alexander Jackson Davis).

Some good news at the meeting was that the Trust's membership has now swelled to 160,000 and that the organization is in the black for the first time. Some bad news discussed was Congress's cutting of historic preservation funds and the fact that the new Preservation Act of 1980, which continues reauthorization of preservation funding through 1987, contains a provision that owners must consent to their buildings being placed on the National Register. The new trust president, Michael L. Ainslie, made quite clear the organization's opposition to that proposal.

The president's main talk during the meeting concerned the idea of preservation as the key to redevelopment of American cities. His three-point program for achieving this includes reaching out across all income groups and races to make preservation philosophy and techniques comprehensive, developing a much strengthened justification for preservation, and building a stronger national network of politically active preservationists. The days in New York left little doubt about his qualities for achieving these goals. [DM]



National Trust Headquarters.

## DC chapter honors preservation

Ten preservation projects ranging from restoration to reuse were honored in the eighth annual historic preservation awards program of the Washington Metropolitan Chapter of the AIA in September.

First Award winners were Yerkes, Pappas and Parker, for their conversion of an old luxury apartment building into the headquarters of the National Trust for Historic Preservation (P/A, Feb. 1980), and the International Consortium of Architects, for their adaptation of a flour mill for commercial and residential use. [Carleton Knight, III]

Robert C. Lautman

## Schindler House: Life as usual (officially)

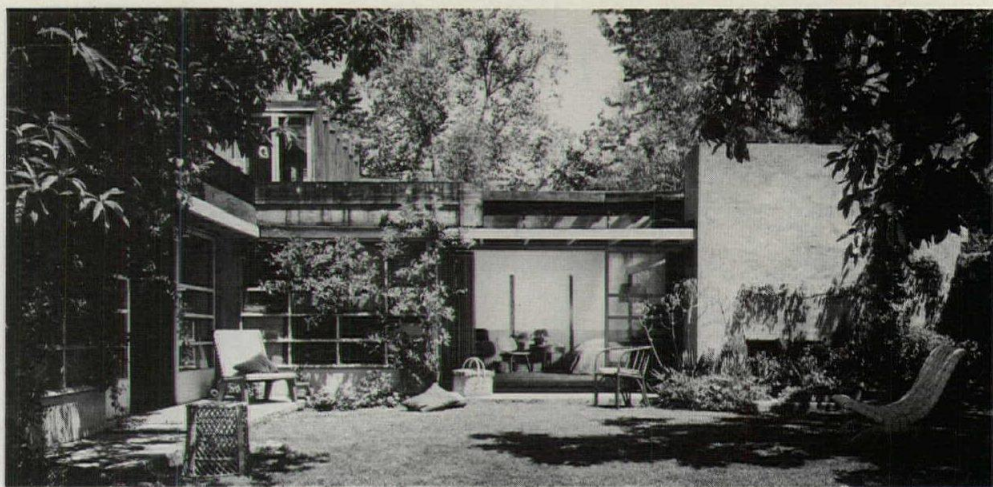
Title to the 1922 R.M. Schindler house on Kings Road in West Hollywood passed in September from Mark Schindler and his children to Friends of the Schindler House (FOSH). The building now houses the Center for the Study of 20th-Century Architecture in Los Angeles.

Finding contemporary uses for historic houses is often problematic, but for the Kings Road house, this is not so; it continues to serve, as always, as a haven for the arts. In the 1920s, more avant-garde music was heard at the Sunday evening concerts than in all the philharmonics in the country. More Paul Klees were stashed in Galka Scheyer's rented guest studio than in any American museum. The house sparkled with ideas. Living spaces were loaned or let out to friends in the arts; notables came for an evening, a week, a month. During the McCarthy period, the house was one of the few places where the political left could openly meet. There were also some IRS men around, for Pauline Schindler regularly deducted from tax payments her share for the Vietnam war.

Little changed, not even during Pauline's absence for a few years, when the couple had separated and the house was legally divided. Upon her return, young architects soon set up little offices everywhere—in the garage, in a carport, in the guest studio, on a sleeping porch. When Schindler died in 1953, his two studio rooms housed a steady flow of striving architects, and the present occupant is also an architect, Bernard Judge, board member of FOSH and project architect for the restoration of the house to its 1930 state. Kathryn Smith, an architectural historian and a board member, has her office on one of the sleeping porches, or "sleeping baskets," as Schindler called them. At present, Mrs. Schindler's former studios act as offices for a Watts Towers group and for an Architecture and Design Group supporting the proposed Museum of Contemporary Art on Bunker Hill.

Several years before Mrs. Schindler's death in 1977 at age 80, she explored ways to preserve the house with David Gebhart, Smith, Judge, and others; out of the talks came a grant of 1000 hours of legal consultation time from the UCLA-based Advocates for the Arts, and through this a legal structure was developed for acquisition of the house. The price was \$200,000, with \$40,000 deducted as a gift from Pauline and her son Mark Schindler. (The property was appraised this year at \$650,000.) A garden party and lecture series raised \$11,000, \$7500 of which provided the down payment to Mark Schindler and his children, Ian, Eric and Margot, all preservation enthusiasts.

Two of the largest architectural firms in the city offered to form a consortium



Schindler's Kings Road House.

to buy and hold the property for an unspecified time while FOSH looked for funds, and this offer pended while FOSH applied for grants. In 1978, the State Office of Historic Preservation, under a National Historic Preservation grants-in-aid matching fund program, gave \$50,000. In the next two years, funds from defaulting recipients increased this amount to \$160,000. Previous to the windfall, a \$15,000 National Endowment for the Arts grant went towards preparing plans to adapt the house for a contemporary purpose.

Now that FOSH has title to the house, a campaign has begun to raise funds for restoration. Meanwhile, the balance of the NEA fund has bought a new roof, because, as Frank Lloyd Wright said of the Millard house, "The rains came to surprise the roofs." [Esther McCoy]



Egyptian Village arcade.

## Glendale mines its forgotten glory

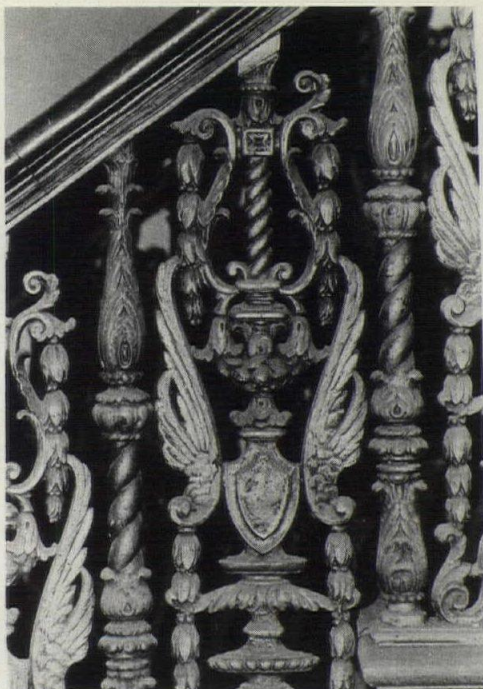
Glendale, Ca, has uncovered a jewel right next to its new downtown retail development, the Galeria. It is the Egyptian Village Café, hidden away for 43 of its 58 years, until the Glendale Planning Dept. stumbled upon it while making a survey of areas for redevelopment.

The Redevelopment Agency has granted Trans-World Center exclusive rights to develop the superblock containing the café, and they have hired Skidmore, Owings & Merrill, who have proposed two commercial/office towers and a low-rise block of retail stores for the property.

The café is all that is left of a 1922 grand scheme that included a shopping arcade with stairs to a basement bowling alley and to the 8000-sq-ft café, designed in the King Tut style made popular by the contemporary discovery of his tomb. Prohibition put a crimp in the café's activities, and when the Depression closed it in 1937, the arcade and bowling alley went, too. The stairs were removed and the building was split into storefronts. With the main access closed, the Egyptian Café was like a tomb behind a false wall. Long forgotten, it has now surprised the city by its splendor. As Egyptology it is spurious, but as theater it is genuine; and Glendale is low on drama: architecturally, only Forest Lawn Memorial Park and two fine Lloyd Wright houses have provided excitement.

Climb the dark service stair off the alley, and at the top you find a burst of light: a 25-ft-high skylight runs the length and width of the building, held up by a double row of square fluted columns with capitals that never knew a book. A wide frieze rests on volutes that could support St. Peter's dome. At the four corners of the room, under lowered ceilings, are enormous scenes in oil—one illustrating the Sphinx and pyramids, another showing a view through arches of (maybe) the Bay of Naples and Vesuvius. The dining areas have lost some of the oils, but none of their exuberance.

Thrown down carelessly under the cruciform skylight are mechanical ducts: in scale with the columns and capitals, they seem, after a few minutes, to be Constructivist art forms! A hollowness resounds when you tap the columns—they are furred out and faced with 12-in. boards and nailed-on fluting. The café is a handsome movie set playing on illusion, a commodity which we have missed and which Glendale now



*Egyptian Café stair rail.*

wants to save; so does the Planning Commission, and so does the City Council. Some preservationists suggest that the skylight be reassembled on the plaza to link the two proposed towers, and most, like Mrs. Carole Dougherty who lives in a Lloyd Wright house listed on the National Register, want to see the café rebuilt as a restaurant.

Trans-World is making a new feasibility study and has hired Cushman & Wakefield along with Skidmore, Owings & Merrill. The outcome is anyone's guess! [Esther McCoy]

## Woes and winning ways on Wilshire

Los Angeles, like other American cities which experienced rapid growth during the 1920s and 1930s, has many splendid examples of Art Deco and Streamlined Moderne architecture. A good number of these stand along Wilshire Boulevard, beginning near MacArthur Park with the legendary Bullocks Wilshire building, and continuing five or six miles west to Beverly Hills. These structures create a distinct visual rhythm on the street. They are all less than 13 stories high and are built to the Wilshire Boulevard edge of the property line, with lower development or parking lots behind; each embodies a strong, geometric motif in its design.

In recent years, property values along the Boulevard have risen in response to the proposed installation of a subway line along the Wilshire corridor. As a result, there has been enormous pressure by property developers to demolish old buildings and erect the higher tower blocks now permitted by the city's building codes. Many important buildings of

the 1920s and 1930s are under threat of demolition. Although attempts are now being made to establish a historic district along parts of Wilshire Boulevard, for some buildings it may already be too late. Two recent examples illustrate the problem and point to a possible solution.

### The Pellissier/Wiltern story

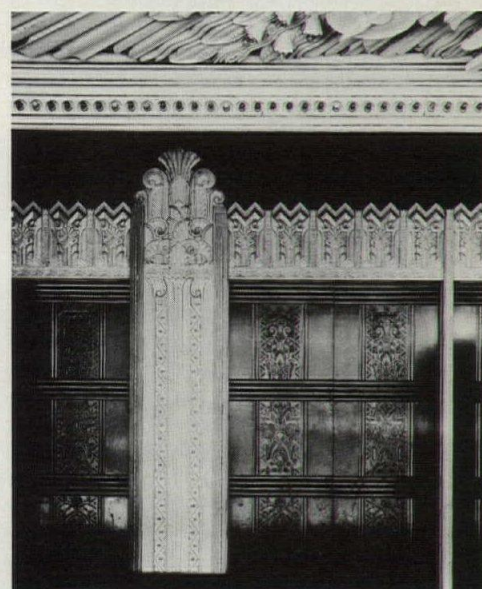
The Pellissier Building/Wiltern Theatre represents one of the finest examples of zigzag Moderne architecture still standing in Los Angeles. The Building, completed in 1931, was designed by Stiles O. Clements of Morgan Walls & Clements; G. Albert Landsburgh, celebrated designer of the Orpheum theater circuit, created the Theatre. Situated at the busy intersection of Wilshire Boulevard and Western Avenue, the pioneering mixed-use development consists of a 12-story tower placed diagonally to the corner, and two low wings of retail shops which hug the edge of the street. Sweeping around the street corner at the base of the tower is the grand marquee of the Wiltern Theatre, a 2300-seat auditorium originally built as a showcase for Warner Brothers' new films.

The tower has truncated corners; it steps back diagonally toward the top, peaking, at its northeast corner, in a small rectangular form which was visible for miles when the building was first built. To express the tower's structure, sea-green terra-cotta panels rise vertically, interrupted periodically by horizontal panels decorated by an interlocking pattern of diamonds. For further emphasis, black metal surrounds the windows. The building is listed in the National Register of Historic Buildings and is also a Los Angeles historical monument.

In 1979, the owners, Franklin Life, having tried to sell the building for many years, applied for permission to demolish the structure in order to sell the vacant site. For more than a year, the future of the building remained uncertain; and during that time much damage was done to the interior. The owners auctioned off many of the Art Deco fittings, including a magnificent chandelier from the cinema. The pipe organ, said to be the largest west of the Rockies, was dismantled and placed in storage.

After tremendous public pressure and several "stays of execution," the Building and Safety Department declared that it would *not* issue a demolition permit without a full environmental impact report.

The building was eventually sold to Los Angeles developers Ratkovich Bowers, Inc., who have earned acclaim for their exceptional rehabilitation of another Art Deco masterpiece, the Oviatt Building near Pershing Square. They are now studying the feasibility of preserving all or part of the building, incorporating it into a larger mixed-use development. As the building, like so many others along Wilshire Boulevard, stands on the front portion of a large lot, the owner will probably plan a higher development *behind* it. Although



*Top: Pellissier/Wiltern Building. Middle: Broadway Department store facing demolition. Bottom: Pellissier Elevator lobby.*

there is no guarantee that the whole building will be preserved, Ratkovich Bowers, Inc., an astute developer with experience in rehabilitation, will certainly see the commercial and tax advantages in maintaining the old as a centerpiece for the new.

[News report continued on page 28]

### The Broadway story

The Broadway building may not be so fortunate. This building, originally designed by Stiles Clements for Coulter's Department Store, is reminiscent of Eric Mendelsohn's Schocken stores in Germany. The structure is reinforced concrete, and the finish is articulated cement plaster, embellished by continuous bands of glass brick which curve seductively around the corners. On the street side, a full-height glass brick panel, with a flat marquee suspended from it, forms the central entry façade. Inside, the ground floor sales area occupies a generous space, and has a mezzanine overlooking it; here, lighting is custom-designed.

Unfortunately, despite its obvious architectural merits, the building may be demolished. It was sold early in 1980, and its entry onto the National Register of Historic Buildings is still pending. The Cultural Heritage Board of Los Angeles, in a flagrant act of apathy, failed to summon up enough positive votes to save it. As of this writing, the Broadway faces imminent demolition.

### Preservation possibilities

It would be a sad commentary on current architecture to say that replacements for such buildings will probably not exceed the originals in quality; but that is not the real issue. This part of Wilshire Boulevard is unique because of the height, massing, scale, and decoration of its buildings. No other section of the city has the same visual qualities; nor could we possibly build, today, a district in the same spirit. Yet these structures could easily be saved, and new development could proceed on vacant land once reserved for parking. This would make economic sense, while maintaining and strengthening the character of the area.

The Los Angeles Conservancy, under the presidency of Martin Weil, is urging the city to enforce specific restrictions on development and to designate a portion of Wilshire Boulevard, including the 'Miracle Mile,' as a historic district, similar to Miami's Art Deco District (P/A, Aug. 1980). The proposal will soon be brought before City Council. If it passes, each important building in the district will be listed, and the planning department will design a development envelope for each site, requiring developers to preserve existing buildings and allowing them to construct new development around or behind them. If such steps are not taken soon, much of LA's architectural heritage will remain only a memory. In this, the city's Bicentennial year, it behooves us to recognize the importance of our heritage and to take steps to preserve it for future generations. [Barbara Goldstein]



Title Insurance Building.

### Preserving South Spring Street

After the big earthquake in 1971, the California state office building in Los Angeles, built in 1933, was demolished as an unsafe structure. Since then, state offices have been located in rented accommodations scattered throughout the city. Although the state always intended to consolidate these offices, the issue of a possible new structure became prominent in 1979, when the Department of General Services recommended that the State build a new 800,000-sq-ft office building in the Civic Center area of Los Angeles.

Hotly debated were the benefits of building a new structure as opposed to retrofitting an old one, especially as the State's own Urban Strategy, written in 1978 and endorsed by Governor Brown, clearly stated its intention to encourage revitalization of the inner city through rehabilitation and preservation. Furthermore, in an area close to the Civic Center there existed a 60 percent vacancy rate in historically significant buildings which could house the state offices.

South Spring Street is one of the oldest parts of Downtown Los Angeles, and every building on it is listed in the National Register of Historic Places. As the former heart of the financial district, it boasts many handsome turn-of-the-century buildings as well as stately structures from the 1920s and 1930s. For years it was the city's main center for banks, brokerage firms, and other financial institutions; the Pacific Stock Exchange is still there, in its 1929 Art Deco building. Lined with trees and densely grained, the street furnishes an ideal spot for pedestrian activity. However, over the last ten years it has steadily declined: the financial institutions have moved to the west side of downtown where they could build high-rise headquarters, and potential tenants have avoided Skid Row, on Main Street adjacent to Spring.

Since 1976 the Community Redevelopment Agency has been actively developing the street, and by the end of this year rehabilitated Spring Street buildings will house both the Agency and the Community Development Department. It was the Agency that first brought pressure on the Department of General Services to reconsider its position.

### Title Insurance Building conversion

Although it seemed obvious to many people that the state office building should be located in a retrofitted building along Spring Street, it took a great deal of political pressure to reverse the recommendation, which had already passed through the state legislature. Mayor Bradley, Assemblyman Torres, and Councilman Lindsay, representing the local community, urged the Governor to press the Department of General Services to investigate the possibility of rehabilitation combined with redevelopment. In subsequent studies, it became obvious that this alternative would be both socially and financially desirable. Welton Becket Associates, proposed architects for the new building, are now preparing schematics and a request for proposals for the conversion of the Title Insurance Building of 1933 and the construction of an 8-10-story building on the adjacent plot. The entire project will eventually house the Supreme Court, Appellate Courts, the Department of Justice, and a number of other state offices. The development will include commercial facilities at ground floor level, which will stimulate activity on the street and provide revenue for the state. As an integral part of the deal, the Community Redevelopment Agency will build a 1400-car parking structure near the site and will initiate a minibus service between South Spring Street and the Civic Center. Financial negotiations are still proceeding, but it is likely that the state will enter into a lease/purchase agreement with either the building's owner or a developer team.

In electing to rehabilitate the Title Insurance Building, the State will spur Spring Street's renaissance by locating an additional 3000 workers there. It will also gain a magnificent property, featuring marble-lined interiors, high ceilings, and interior and exterior friezes—priceless qualities almost impossible to duplicate today. [Barbara Goldstein]

### "Ornament & Architecture, Reconsidered" by AIA

At a design conference held in San Francisco September 8 and 9, the AIA tried to come to grips with the newly respectable subject of ornament. Robert Geddes, Dean of Architecture at Princeton and Program Chairman for this event, introduced the subject by saying that "there has never been an architecture without ornament"—not even [News report continued on page 32]

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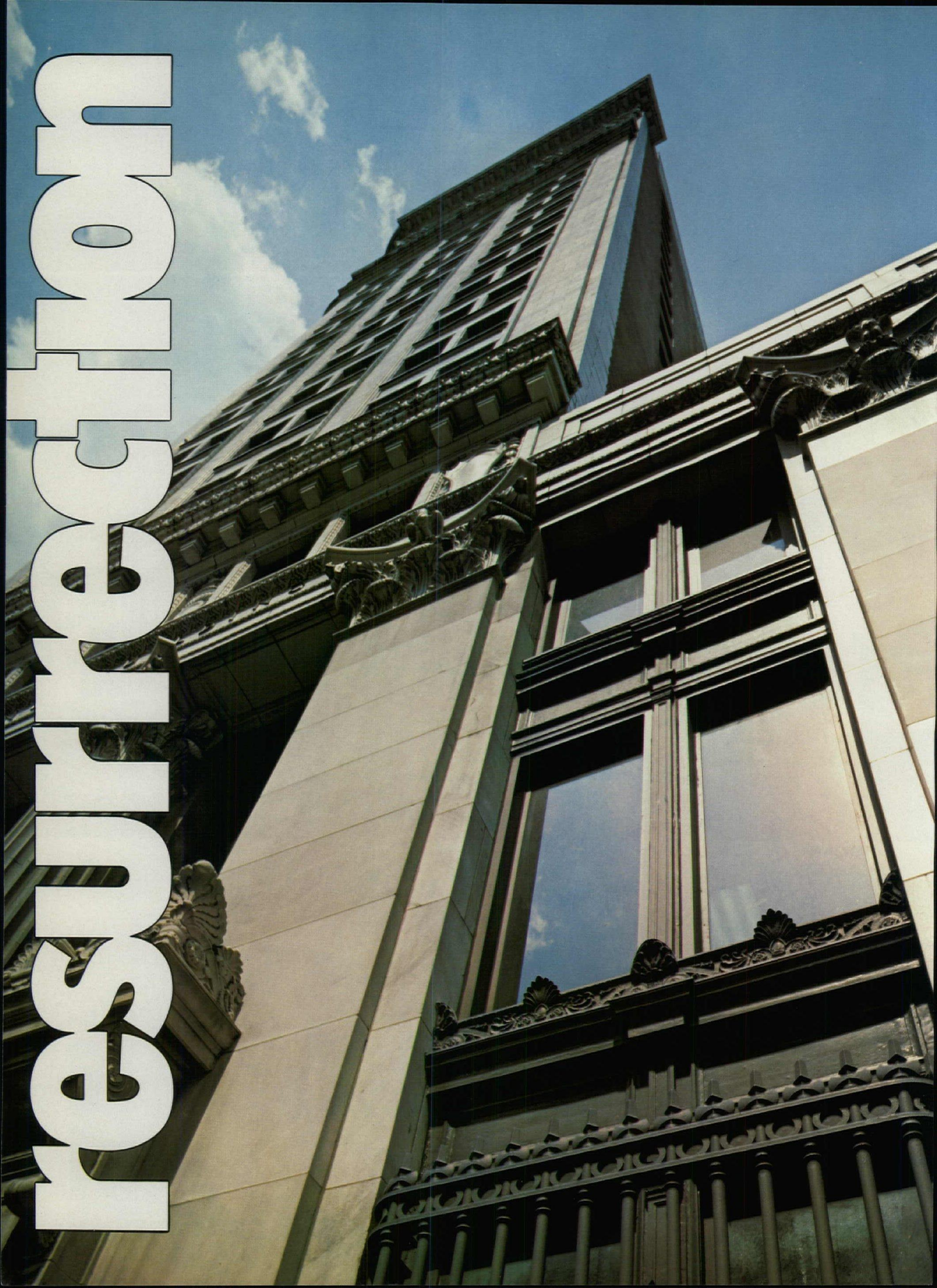
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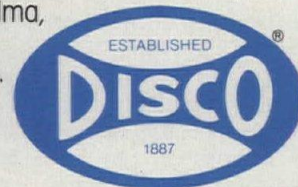
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Palace of Fine Arts.

Mies's. Architect Frances Halsband of New York and Richard Oliver of the Cooper-Hewitt Museum had the unenviable task of reviewing the ornament of this century in two hours, a process that came into focus only during Oliver's analysis of five key works by Bertram Goodhue.

The discussion, scheduled for the two mornings, became more challenging on the second day, when the conferees heard architects Thomas Beeby of Chicago, Allan Greenberg of New Haven, and Kenneth Frampton of the Institute of Architecture and Urban Studies, New York. Greenberg's purposeful exposition on Classicism, which he both studies and practices, had an authority that comes only of scholarship. As one who appreciates the integrity of systems of ornament, he said, "Recent attempts to take parts of the Classical vocabulary and glue them—or screw them—to the façades of Modern buildings . . . usually demean both the artifact and the building."

Kenneth Frampton, too, was critical of today's architects who "just apply decoration and think they're with it." But he stressed that the issue of ornament could not be separated from the "issue of representation." Adolph Loos, he pointed out, had not indicted the ornament of the past, but rather maintained that the invention of ornament was not possible in this period of history. Since we are unable to represent anything—with conviction—in our ornament, we have the option, which Loos himself pursued in practice, of using ornament from other periods in such ways that it is clearly seen as displaced quotations.

Aside from some thoughtful observations in brief "response" periods, local architects played little part. But they had, of course, designed and altered the settings for the afternoon tours, which were planned and introduced by architectural historian (and P/A correspondent) Sally Woodbridge. One afternoon's tour took participants through the marble halls—Classical Re-

vival, Art Deco, and Modern—of the city's Financial District. The other tour encompassed the better known—and truly spectacular—ornamental treasures of its Civic Center and Palace of Fine Arts, then reached across the Bay Bridge to the Art Deco Shangri-la of the Oakland Paramount Theater (P/A, July 1974, pp. 50-57).

The conference dealt remarkably little with the kind of ornament peculiar to the Bay Area, the Craftsman, Mission, and Japanese influences that came together in the domestic work of Maybeck, Howard, and Morgan, and influenced such later figures as Wurster, Esherick, and Moore; but given the limited time, the emphasis on international modes was appropriate. For an audience that had largely abstained from ornament—and admits it now mainly as an ironic gesture—a two-day conference was, in any case, only a teaser. [JMD]

## Will citizens plan Oceanside?

Oceanside is an exception to the image of Southern California's gold coast. While manicured million-dollar homes, pampered state beaches, and marinas encrusted with luxury condos compete for each square inch elsewhere, Oceanside's beach remains for the most part a sad strip of faded motels and cottages, raw parking lots, and cracked concrete on the edge of a rock strewn shore. Years of neglect and marauding Marines on weekend passes from nearby Camp Pendleton have taken their toll.

Concerned with any used or abused beach, California's Coastal Conservancy last spring waded ashore in this city of 78,000 persons about 35 miles north of San Diego to see if some plan could be developed to revitalize the area. In keeping with the agency's commitment to community involvement, planning consultant Jim Burns of San Francisco was brought in to drum up interest among the citizenry and to involve them in a design process. It has been a noble experiment that has raised the design consciousness of the community and, not unexpectedly, the ire of some real estate interests and local politicians.

Burns called the process of citizen participation "Take Part," and he organized it in four steps: awareness, perception, decision-making, and implementation. Each step involved a charrette and drew increasing numbers of local residents. Citizens also served on a panel of professionals and city and state officials to select a design team to give the process form. After a protracted review of presentations from 35 offices, they chose the team of Martinez-Wong, architects, Parc Tec landscape architects, and the Urban Collaborative, all of San Diego.

The plan produced in the citizen workshops calls for organizing a series of major and minor, active and passive open spaces along the beach road, known as The Strand; limiting vehicular access; attracting small scale commercial



Section of Oceanside.

enterprises; and tying all the elements together with appropriate signage, graphics, and banners of a nautical design. The workshop also proposed a new 2000-ft-long wooden pier projecting into the Pacific, which can accommodate a quality restaurant. A renovated amphitheater, an expanded community center, and a major water sculpture cascading down from the stabilized bluff overlooking the beach are core elements of the plan.

The proposal now goes before the Oceanside City Council, which has been feeling pressure from Watts Industries of Santa Monica, a private development firm that has a contract from the city's redevelopment agency to draw up a plan for the entire downtown, including the potentially valuable beachfront.

Meanwhile, in keeping with the fourth step of the process, implementation, citizens who took part in the workshop have formed a task force to press for the plan developed with the selected design team. "It is now in the hands of the citizens and their supporters," says Jim Burns, obviously pleased with the results to date. "I'm hopeful the citizens will prevail. After all, that is what the process is all about." [Sam Kaplan]

*Sam Kaplan is a writer on urban policy and planning on the staff of the Los Angeles Times.*

## Barnes receives Sullivan Award

Edward Larrabee Barnes has been named the fifth winner of the Louis Sullivan Award for architecture presented every two years by the International Union of Bricklayers and Allied Craftsmen. The award consists of a silver medal and a \$5000 prize. Previous winners of the award are Ulrich Franzen, Philip Johnson, Hartman-Cox Architects, and Davis, Brody Associates. This year's jury was composed of architects Lewis Davis, John Burgee, Arthur Erickson, Barton Myers, and Donald Singer; Associate AIA member Alton Parker, Dallas, and Harvard student Jonathan Foster.

[News report continued on page 36]



## Up...and on time

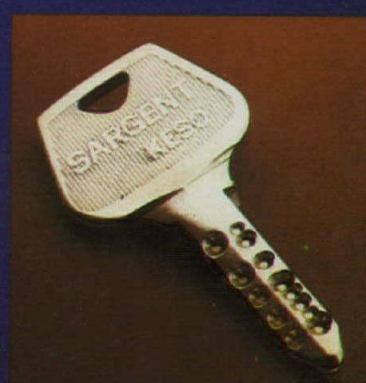
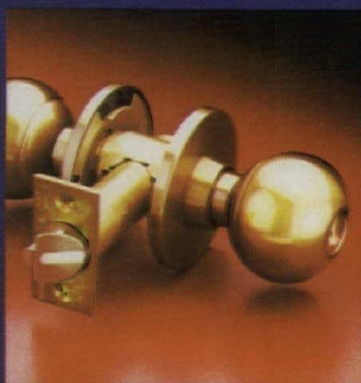
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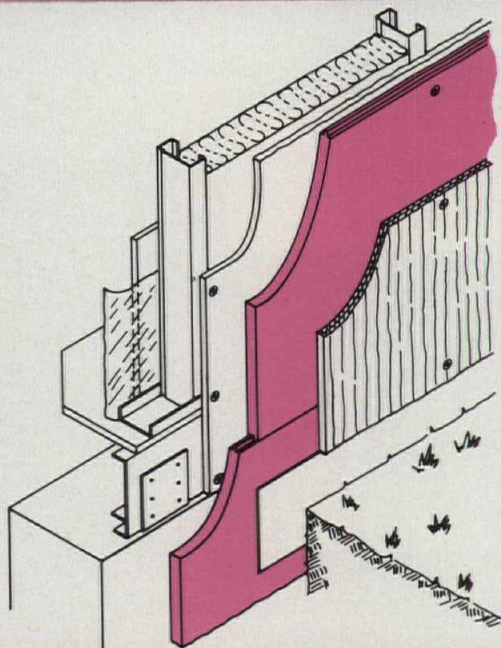


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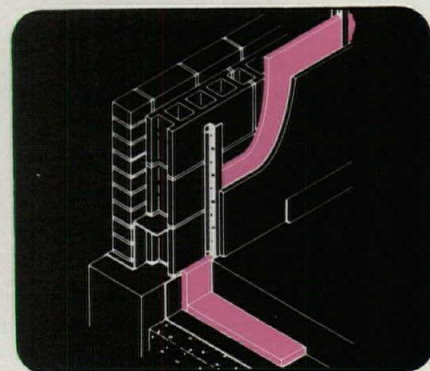
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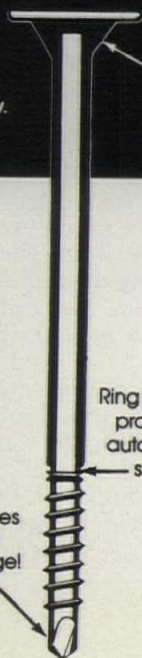
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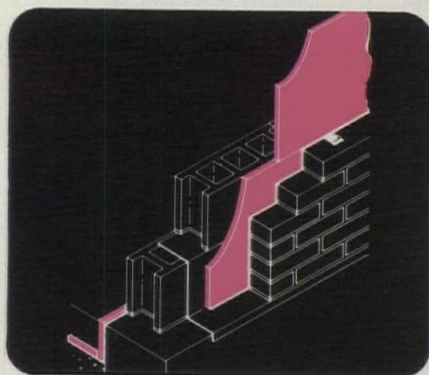
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## Report from The Netherlands

Preservation has been described as the management of change, in this case alterations to the physical fabric of a community. While preservation problems the world over are remarkably similar—adaptive use, saving of great estates, renovation of housing for the poor, government aid, underutilization of old churches—the Dutch seem particularly attuned to accommodating change with constructive solutions, as a recent visit proved.

The Netherlands, a country roughly the size of Massachusetts and Connecticut, offers some startling preservation contrasts to the U.S. It has some 40,000 registered historic properties (that includes buildings to 1850; they are now surveying up to 1930 and expect to add 15,000 more to their protected list), while the National Register of Historic Places has roughly 20,000 in the U.S. The Dutch government preservation grants budget is currently \$60 million; ours is \$32 million.

In Holland, registered historic buildings are protected by law from demolition or alteration (exterior or interior) without permission. And in Downtown Amsterdam, the regulations almost preclude demolition for any reason. Thus there is a continuing reuse of available resources. But change is inevitable, and how the Dutch manage this can be seen in several current projects.

During the early 20th Century in Holland, a significant effort was made to improve the living conditions of the lower social classes. One result was the Amsterdam School, a very romantic style of architecture that "gave workers their own castles," as Tjeerd Boersma, an editor of the Dutch architecture magazine, *Wonen*, puts it. This socialist approach to building, conceived and championed by Dutch architect M. de Klerk, was diametrically opposed to the functional, clean-line approach being taken by Rietveld and others at the same time.

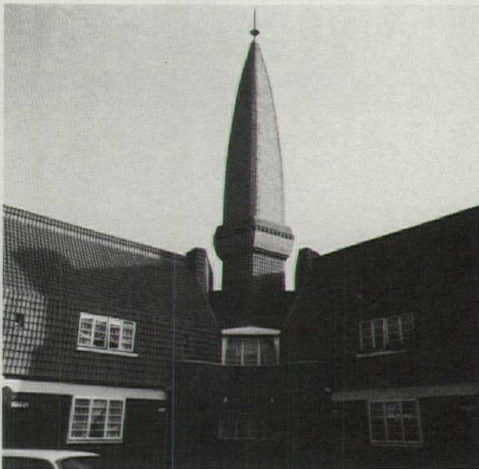
The most exuberant example of the Amsterdam School is de Klerk's housing project (1913-17) in the Spaarndammer section of Amsterdam. The brick buildings are constructed around a central courtyard that includes a chapel. Bizarre-looking bulbous projections at the corners of the buildings hold bay windows. A magnificent, but nonfunctional, tiled tower tops the roof. (It would no doubt not be permitted there today, but editor Boersma cites the requirement of one percent of the construction cost for "art," noting that the tower could be built as a sculptural element in the courtyard.)

This housing was difficult to live in because of deterioration in recent years and because of changes in life styles.



Above: Brinkman Passage, Haarlem.

Below: Spaarndam Housing, Amsterdam.



Photos: Maarten Brinkgreve

Rather than construct new housing, however, the Spaarndammer complex was renovated last year for \$2 million. Best of all, the residents, who were moved to temporary housing during the work, were then moved back into their original units after they were completed.

They found a number of changes, not the least of which was in the floors. When the complex was built, the windows were high off the floor; today, however, people like to sit and look out the windows. How could this change be

accommodated? Jon Jesserun, director of the Dutch Department for the Preservation of Monuments and Historic Buildings, said that his agency has given extensive consideration to such problems. One solution—altering the size of the windows—might be easy, but would seriously compromise the proportions of the building, one of the reasons for its being designated historic. Raising the floors inside, although that would change the interior configuration and would be more expensive, seemed a reasonable solution to a difficult problem, he said.

What happens with a building that is 300 to 400 years old, as many in The Netherlands are, and that has had a number of changes made to it over the years? Jesserun believes all changes should show, since they are a part of the building's architectural history.

This position has put him in conflict with one restoration project in Amsterdam. The Dutch West-India House (1617), where the decision to found New Amsterdam, now New York City, was made in 1625, was burned in 1975 and is being restored (completion is scheduled for March 1981). The city's civil marriage bureau will rent much of the space, but the board of governors' room is to be a museum.

The size of the room's windows had been changed since 1625, and while government preservationists thought that change ought to remain as part of the history, the foundation in charge of the restoration thinks otherwise. "It's a great idea in theory," says the foundation's Guert Brinkgreve, "but this is too beautiful a room to allow that." Both have a point and it is significant that the subject is being given serious consideration.

In Haarlem, a city east of Amsterdam, another project has drawn Jesserun's eye. On the main Market Square just opposite St. Bavo, a 13th-Century church that is now closed awaiting a \$15-20 million restoration, there is a row of 400-year-old buildings. Since the laws would not permit demolition of these buildings, a developer, backed by the country's largest pension fund, is saving the front 20 ft and constructing a \$25 million mixed-use commercial, office, and shopping complex behind. Brinkman Passage, designed by a Dutch and West German consortium, is to open in fall 1981.

There is a serious attempt to blend old and new elements in this huge project (6000 sq m of shops, 8500 sq m of offices, 22 apartments). The new elements, which are distinctly contemporary, are broken into comprehensible pieces and are similar in scale to the older parts. Despite this effort, Jon Jesserun wonders whether it is preservation.

[News report continued on page 38]



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tion or mere façade-saving. "It keeps the character and it is a solution, but it's all fake," he notes.

There is another kind of solution that preserves the façade and interior, but permits the removal of any alterations if needs change. In Amsterdam, the Zouderkerk (South Church) was completed in 1611, but because of a dwindling congregation, was sold to the municipality in 1929 and then used as an exhibit hall for the town planning office.

Located in New Market, the city's first historic district (this Jewish neighborhood was walled in by the Nazis during World War II and later nearly devastated by a proposed highway), the church was restored by the city for \$3.5 million in 1979. It will now become a community center at a cost of \$2 million more.

Architect Hans Haganbeek, whose office is across the street from the church, responded to this challenge by creating a series of modular units that meander in, around, and through the main sanctuary. "I saw the church as an envelope for this multi-functional space," he said, adding, "the structure of the city—its houses, streets, and squares—continues inside the church." The modular units, made of glass and gray metal to unify them, will provide a pleasant contrast to the Renaissance architecture of the interior.

But, most significantly, if the next generation wants a church, they can have one, by simply removing the free-standing modular units.

The Dutch manage change quite well, perhaps in part because they have a great respect for the past. Even Herman Hertzberger, one of the country's leading contemporary architects (Utrecht Music Center, P/A, July 1980, p. 82), finds value there. Commissioned to design a new library for the university in Groningen, he came up with a plan that wrapped the new structure around a 19th-Century Neo-Gothic church. He believed that using the church would create an exciting atmosphere and increase the quality of the space. His plans were rejected in 1976, but he said in July that the church is still standing and a preservation group has pressured the university to take a new look at the proposal.

"When we do away with what has gone before us, paying no attention to what we still possess and thus making no use of the accumulation of images at our disposal, we nip the possibility of renewal in the bud," Hertzberger has said. The Netherlands, with its wealth of historic architecture that extends into the early 20th Century, seems to understand that the past can contribute to the future. [Carleton Knight, III]

(The author wishes to thank the Netherlands National Tourist Office, New York City, for assistance in the preparation of this article.)



Jane Jacobs.

## Big and little plans in Boston

"Make no little plans," said developer James Rouse. "Make no big ones," rebutted author and critic Jane Jacobs, in a series of addresses, at Boston's Faneuil Hall, introduced by Harvard's Urban Design Chairman Moshe Safdie as part of the Second International Conference on Urban Design. That event, as well as the Great Cities of the World Conference, took place in the last week of September, and they were the final major happenings in Boston's "Jubilee 350" birthday celebration.

Mayors and planners invited from three dozen cities, from Paris to Bangkok, paused during the week's seminars and lectures to hear these two articulate speakers voice opposing views on the issue of the hour: shall we create new settlements for the multiplying millions inch by inch, or on the grand scale?

Rouse, surrounded by his own Faneuil Hall Marketplace, insisted that only work as large as his projects in Columbia, Md, Baltimore, Boston, the South Bronx, and London "embrace all the parts and pieces" necessary to succeed, and "possess the magic to stir men's minds."

But the urbane pipe-smoking Rouse, accustomed to tangling with bankers, found more than his match in the gray-haired folk heroine with flowing wool dress and ready wit. Invited to respond to prepared addresses by Rouse and by Secretary of HUD Moon Landrieu, the author of *The Death and Life of Great American Cities* began by dismissing all supersized plans. "By the time it's possible to think up a big plan," she said, "the plan is middle-aged." Reducing a plan to a formula, furthermore, "stifles alternatives" and loses the "love and imagination" of the original impulse, even when the inspiration is as successful as the nearby Quincy Market renewal. "Highways," continued Jacobs, "are big plans, while Boston streets, for example, illustrate the imbibing of so many little (beautiful) plans."

Bostonians on those streets outside the conference tended to be sarcastic about the Great Cities shindig in their midst. Representative Mel King, a black opponent of Mayor Kevin White in the last election, complained of gentrification and condominium conversion, pointing out, "A city is only great if it meets the needs of its people." Though the five-month birthday bash featured several architectural and urban design exhibits, Bostonians have misgivings about the dozen highrises on the drawing boards, and about the rapid dwindling of the planning department (20 planners were dismissed in October).

The exhibitions included "Place Over Time," a permanent walk-through stage set of six sections of the city; two summer-long shows, "The Boston Tradition" illustrating the city's literary heritage, and "Gateway to the Sea: 350 Years of Boston Harbor"; and two autumn exhibits, "Lost Boston," at City Hall, which features photographs (from the forthcoming book by this writer) to remind birthday celebrants of the perils of destruction, and "Boston: Forty Years of Modern Architecture" at the Institute of Contemporary Art, a perfunctory examination of a star-studded cast, from Gropius through Breuer,



Lost Boston: Scollay Square (above), Wharf (below).



Saarinen, and Le Corbusier, to Rudolph (DES Building), Pei (Hancock Building), Johnson (Boston Public Library), and Gwathmey/Siegel (Knoll showroom).

And, as icing on the birthday cake, Entenmann's Bakery consulted with architects Graham/Meus for their reconstruction, in edible form, of the original Faneuil Hall. [Jane Holtz Kay]

Jane Holtz Kay, architecture critic of *The Nation*, is author of *Lost Boston*, to be published this month by Houghton Mifflin.

[News report continued on page 42]

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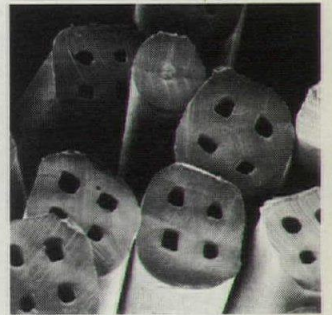


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Installation: Memorial Hospital of Phoenix.

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Interior Designer: Don Beams, A.S.I.D., B. Eric Bron & Associates, Phoenix, Arizona.

Flooring Contractor: Bruce Floors, Phoenix, Arizona.

\*Du Pont registered trademark for nylon fiber. Du Pont makes fibers, not carpets.





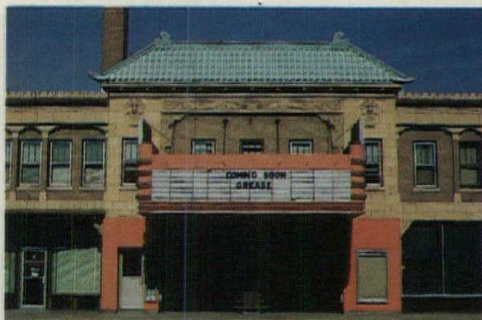
1  
Last movie houses shown  
in latest New York gallery

John Margolies, indefatigable chronicler of vernacular architecture, has recently completed a tour of all 48 contiguous states in search of endangered roadside design. A sampling of his photographs in the movie house category is on display, through Dec. 1, at The Lobby, 369 Lexington Avenue, New York (P/A, Aug. 1980, p. 40).

"Since idle amusement has never been overtly promoted by our culture," says Margolies, "the builders of early movie theaters used every architectural trick in the book to entice and seduce their potential customers—all of us." He quotes movie theater architect S. Charles Lee: "The show started at the street."

Margolies laments, of course, the passing of these buildings, some of which are being smashed just after—or just before—he reaches them with his camera. These buildings are "grand, exuberant gestures, made when downtown was alive." Now, in contrast, movies are shown at "anonymous cinder block Cinemas I, II, III, and IV on parking lots at the outskirts of town. The building no longer has to advertise the movie." Even if a downtown gets rehabilitated, the theaters are often destroyed; "People don't value humor in architecture." His surveys are timely, he feels, "because finally architects are beginning to be human again."

Margolies' photographs of "Resorts of the Catskills" were exhibited at the Cooper-Hewitt Museum in New York last summer (see P/A, Feb. 1978, pp. 46-51). His itinerant work has been supported by grants from the Guggenheim Foundation, the National Endowment for the Arts, and the New York State Council on the Arts, and the spring of 1981 will see publication of his book, "The End of the Road," on motels, gas stations, and roadside attractions. [JMD]



2



3



5

- 1 Strand Theater, Shreveport, La.
- 2 Peking Theater, Ill.
- 3 Charles Theater, Charles City, Ia.
- 4 Coronado Theater, Lordsburg, NM.
- 5 Fox Theater, McCook, Ne.
- 6 Theater, Colchester, Ct.
- 7 Loyola Theater, Westchester, Ca.

## Designer's Saturday continues to grow

At least one showroom counted visits from more than 6000 architects and designers during Designer's Saturday, Oct. 3 and 4. High design dominated the introductions. What was introduced in terms of systems, either new or as additions to existing offerings, was geared to the increasing role played by desk computer terminals in American business.

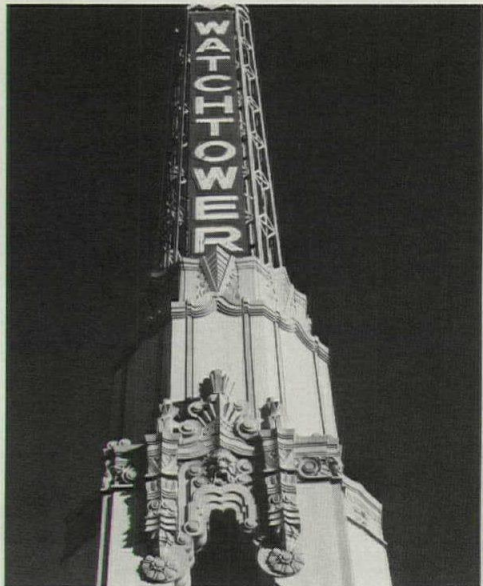
Many of the new offerings of individual pieces were imports from European countries and designers, not all of them new but all new this year to the U.S. On the other hand, some were quite old, reflecting this era's serious interest in history. In addition to the Ei-



4



6



7

leen Gray and Otto Wagner revivals earlier this year by Stendig and Thonet respectively, ICF introduced two pieces by Josef Hoffmann and a hitherto unproduced sofa by Aalto. Thonet also repeated its excellent sesquicentennial display of antique bentwood pieces.

Contemporary designs continued to explore the aesthetics of industrial components with perforated metal, plexiglass, metal-like finishes, and gridded surfaces. At the same time, other designs leaned toward anthropomor- [News report continued on page 47]

**Architect:**

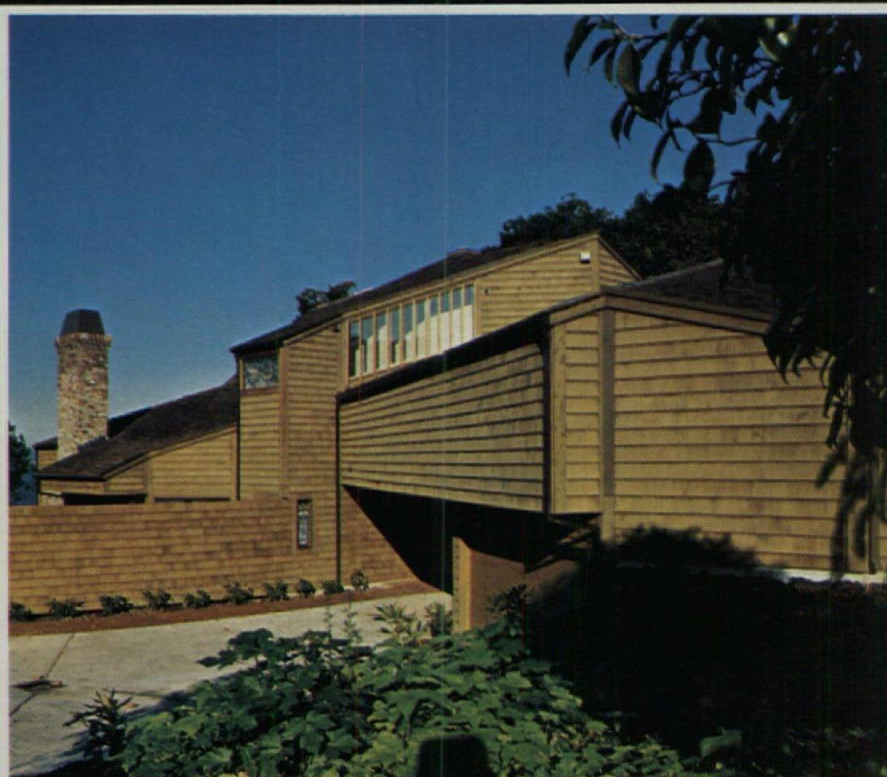
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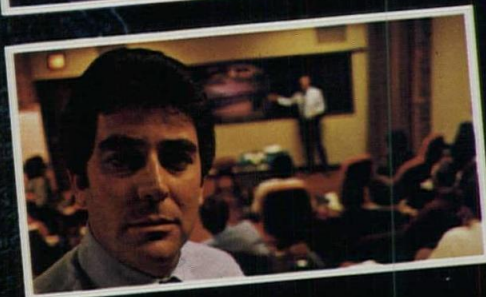
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# Laminated architectural glass. How it spruced up this old library is a case for the books.



The restoration of Chicago's 1880's-vintage library has earned the architectural firm of Holabird & Root a coveted 1979 AIA Design Honor Award for the extended use of a building.

The design challenge was to revitalize the structure to meet modern functional standards while preserving its historic appearance. For this project, the glazing specified was laminated architectural glass, reinforced with a Saflex® interlayer of polyvinyl butyral by Monsanto. It was selected for many convincing reasons.

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It was important that the glazing chosen could be cut to fit on site or in the shop because the library's antique iron window frames were irregular in size and shape. Laminated architectural glass is easily cut to size with simple tools, impractical or impossible with other glazings.

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phism, often with a winking humor or even pop confrontation. Colors continue into the tertiaries, especially greens and pinks of extraordinary subtlety. The purples of last year are still with us as are the warm neutrals.

Local government paid homage to the contribution of the interiors field to New York City with a citation, accepted by Designer's Saturday president Herb Tillis of John Stuart International, from the Mayor's Advisory Council. [NM]



## Mixed-use rehabilitation on the Denver frontier

Between the jostling highrises of Denver's core and the drab boundary of its railroad yards lies an extensive area of low-rise blockfronts that look something like Hopper cityscapes come to life. The potential of these long-neglected rows has now become apparent, and rehabilitators are moving in rapidly.

The image of an earlier urban order, ready to be recaptured here with little architectural intervention, is exemplified in one of the earliest reclaimed rows. Originally built as apartments over stores, these two-story buildings had become warehouses. Renovated as a row of two-story-and-basement condominiums in 1976 by Decker & Associates, Architects, the project was the first to reintroduce dwelling units to this part of town. (Street level spaces can be either used by owner-residents or put into a commercial rental pool.) To enhance the prospect of living over the store, backyards were filled—rather tightly—with a pool and a tennis court served by a dressing-sauna-lounge wing along the side street. Hence the project's classy name: Blake Street Bath and Racquet Club.

The brick façades here, comparable to others on nearby blocks, required only cleaning (and discreet new dark aluminum windows) to bring out their proto-Post-Modern detail. At street level, however, a patchwork of wood-framed fronts was cleared away and replaced by uniform, recessed, dark-painted ones, which serve as foils for newly exposed cast iron columns. These

slender shafts, with their pragmatically syncopated spacing, are very effective visually, by today's standards of restoration, but differ sharply from the original character of the buildings. At the back of the row, brick walls were painted light tan, and their regular recesses were filled in with steel balconies and spiral stairs linking apartments with recreational offerings below. [JMD]

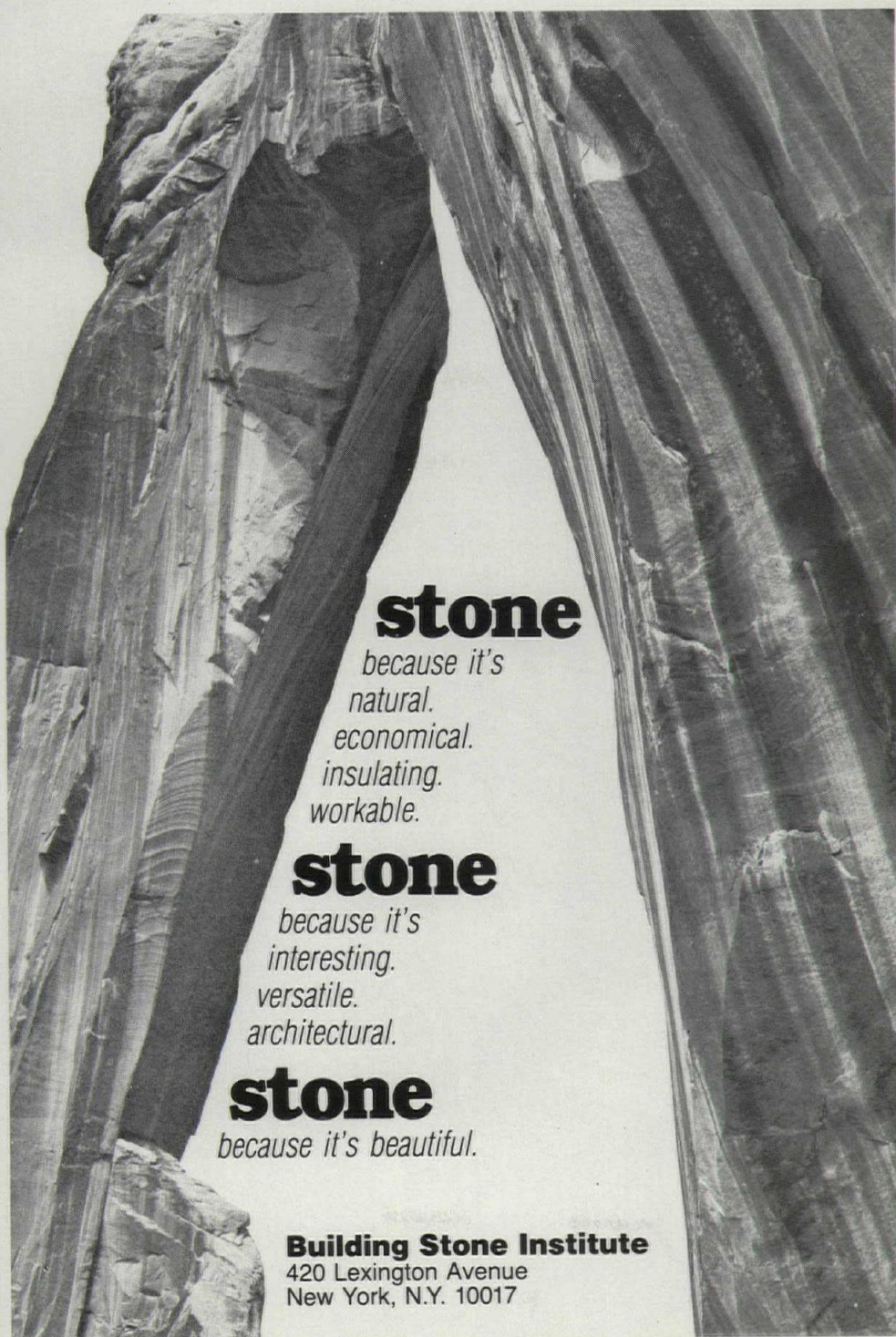
## History respected in Stanford reconstruction

Looking at its 79-year-old stone walls, you would never guess that the History Corner building—one of the structures in Stanford University's original Quad—was dangerously unstable only a couple of years ago. Damaged in the 1906 earthquake and only hastily

patched up after it, the structure had become, in the words of one engineer, "a pile of bricks and stone which somehow had to be tied together" lest another jolt bring on disaster.

History Corner was not the first of Stanford's original buildings to be rehabilitated to meet seismic standards. But—appropriately enough for a history building—it shows much more respect than earlier instances for the original design, by H.H. Richardson's successors Shepley Rutan & Coolidge. In this case, reconstruction was not accompanied by insertion of new low-ceilinged stories or unsightly breaches of the tile roofs to squeeze more space into the attics.

The architects for the remodeling, a joint venture of Esherick, Homsey, Dodge & Davis with Stone, Marraccini & [News report continued on page 51]



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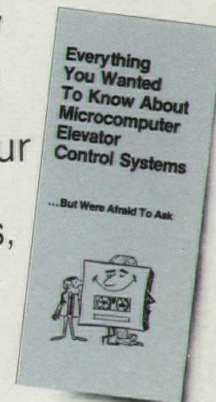
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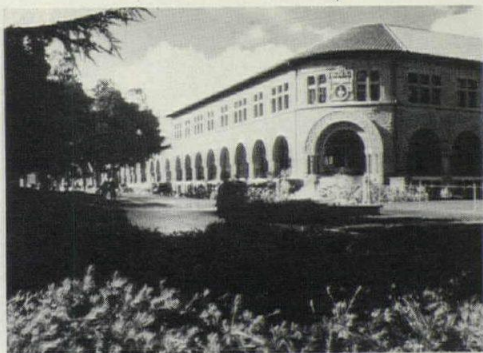
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New automatic wheelchair model ODP7WM-P shown above.



Top: History Corner building.  
Middle: Roofscape.  
Bottom: Interior—old meets new.

Patterson (all of San Francisco), were able to find some additional space in the basement and the attic and gain some from relocation of certain corridors and stairs. But the interiors today retain the generous ceiling heights and approximate the original detailing of oak trim and wainscot in the corridors. In a spacious central stairwell, wrought iron balustrades with substantial oak railings ascend around frankly new columns and beams. Light for some attic spaces was borrowed through inconspicuously placed wells in the structure's roof planes.

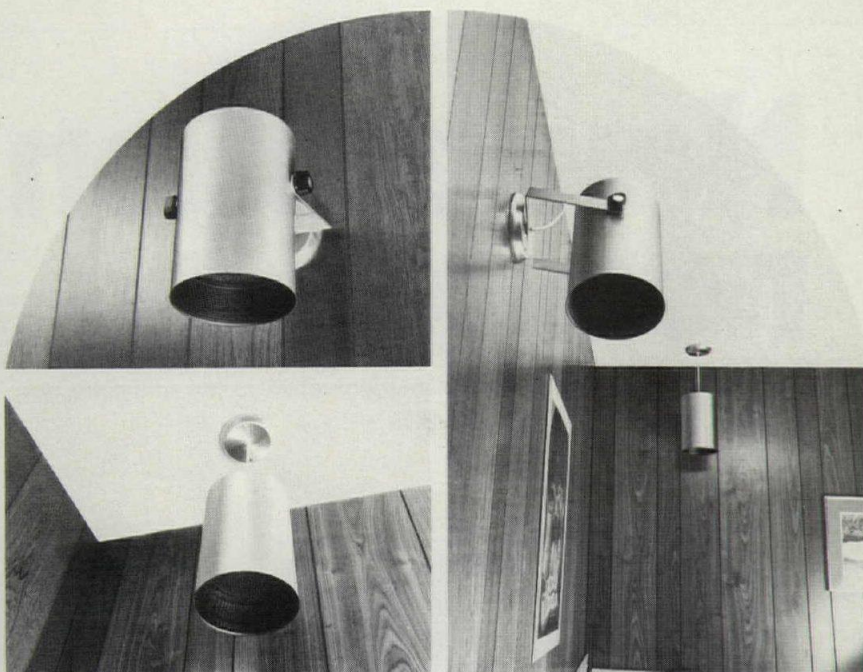
The retention of the building's original spatial character is all the more remarkable in that the structure behind the stone façades was entirely destroyed and rebuilt—in an intricately phased

process. (Wood-framed floors, for instance, served as formwork for concrete slabs before removal.) The stone walls served as formwork and facing for sprayed reinforced concrete structural membranes applied to their inner surfaces, which are joined to a new internal system of columns and slabs. [JMD]

## How to save our silos

What do you do with some old grain silos? That was the question facing the architects and developers who owned the original Quaker Oats Co. in Akron, Ohio. Their solution was deceptively simple: using diamond-tipped saws to cut holes in the sides and dropping floors in like poker chips, they created a hotel.

The \$7.5 million Quaker Square Hilton opened in July, the culmination of seven years of planning. The 144 rooms (each is circular, has 450 sq ft and a balcony) are located in the 100-ft-high silos. There is room for expansion to 200 rooms higher in each silo. One of the owners, architect Theodore Curtis of Curtis and Rasmussen Associates, Cuyahoga Falls, Oh, said he was inspired in this project by Ghirardelli Square, a former chocolate factory in San Francisco that opened in 1962 and is generally credited with starting the reuse trend in the U.S. Unfortunately, the actual execution of Quaker Square, in areas such as the entrance canopy, falls somewhat short of the ingenuity of the concept. Curtis and his partners bought the Quaker Oats complex in 1973 for \$325,000, unaware that it [News report continued on page 52]



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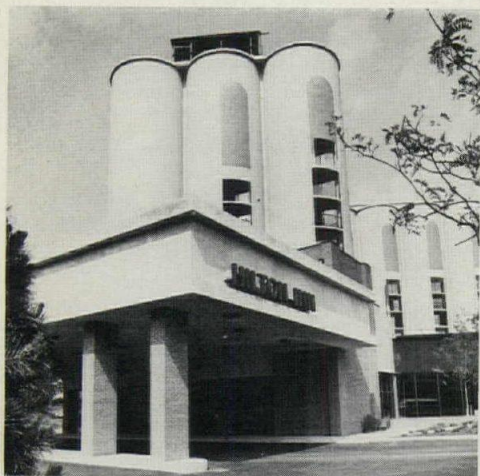
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Above: The Hilton conversion.  
Right: The original silos.



would take until now to open the hotel. In the meantime, however, they were able to reuse the factory section as a restaurant and shopping arcade.

Funding for the hotel came from private investors, the sale of industrial revenue bonds and a \$1 million Urban Development Action Grant to Akron from the U.S. Department of Housing and Urban Development.  
[Carleton Knight, III]

## Factory becomes auction gallery

Sotheby Parke Bernet, the fine arts and antiques auctioneers, this September opened their new New York galleries devoted to the decorative arts. The architectural firm of Lundquist & Stonehill redesigned the four-story, block-long concrete building, which was constructed as a cigar factory in 1922. The new façade has gray Quebec granite, strips of 7-ft-high casement windows, and two 22-ft picture windows. Inside, each floor covers a one-acre area; the huge main salesroom is 3500 sq ft and is connected electronically with additional sales and exhibition rooms by means of computers, viewing screens, and an extensive security system.

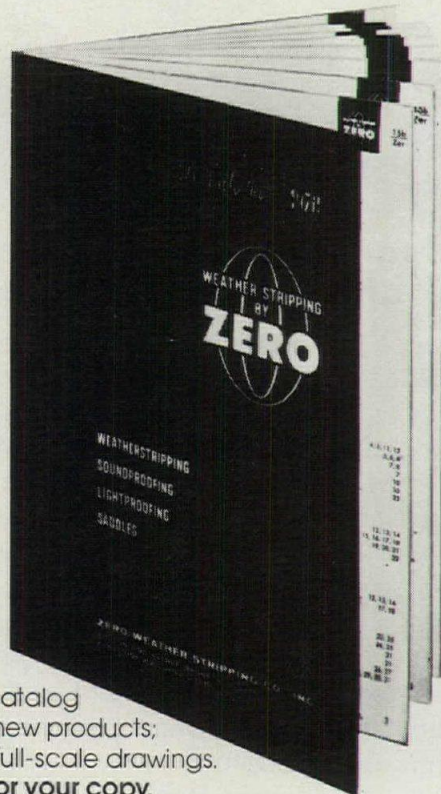


Above: Before construction.  
Below: New galleries.



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## A.A.S.L.H. Annual Meeting

The American Association for State and Local History held its 40th annual meeting in New Orleans, La, Sept. 6-10, 1980. Lead-off speaker was The Honorable Lindy Boggs, Congressional representative from Louisiana's 2nd District.

Representative Boggs, active in preservation and restoration work, is co-sponsor of a Heritage Bill—in which natural as well as cultural preservation is considered. The bill is presently in committee, but shows good signs of becoming law. The congresswoman stressed the link in the circle of knowledge which all civilized societies have as their heritage—and link of history. And now today, when one gallon of gas is used to make, deliver, and install only eight bricks, recognizing and utilizing our past, where buildings are concerned, is not only civilized, it's practical!

The Conference seminar's subjects included the preservation of Afro-American history, Energy Conservation and Management for Historical  
[News report continued on page 56]



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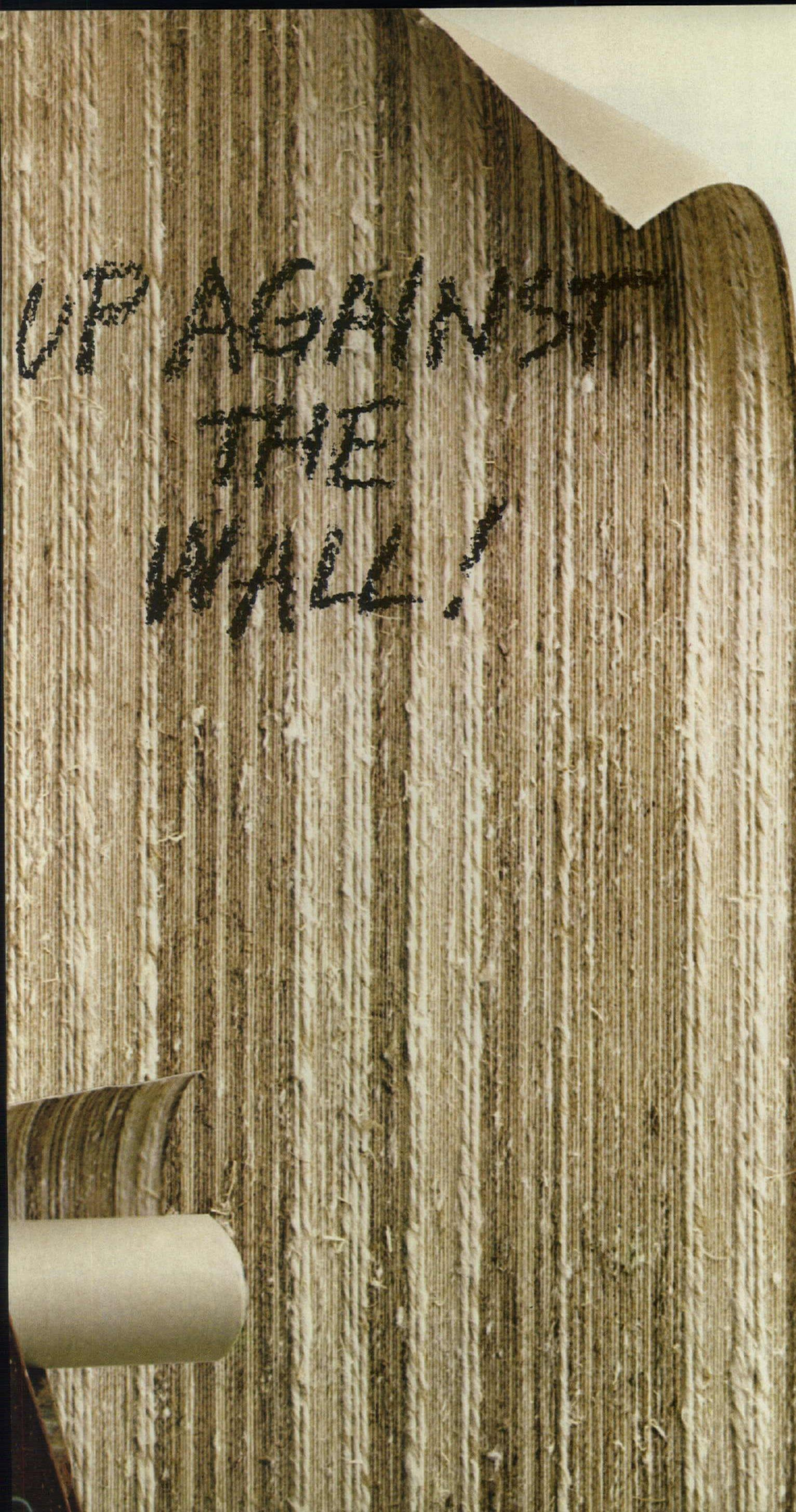
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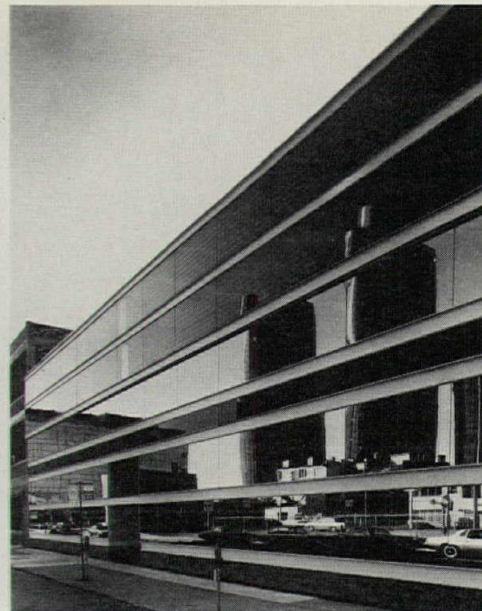
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Societies and Museums, and new technologies of preservation including the preserving of architectural materials as well as records.

The A.A.S.L.H., located in Nashville, Tn, provides guidance in a young and expanding field. [Edward D. Levinson]

## Restoration/ solar conversion

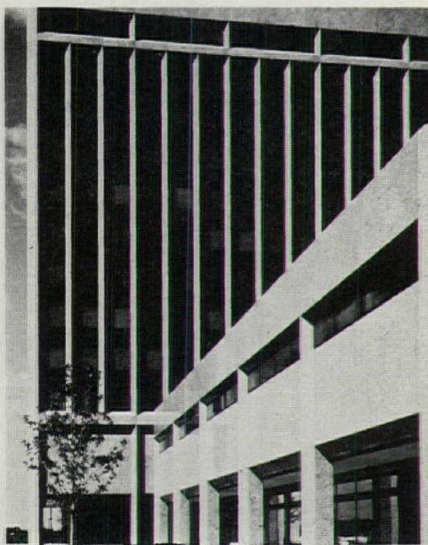
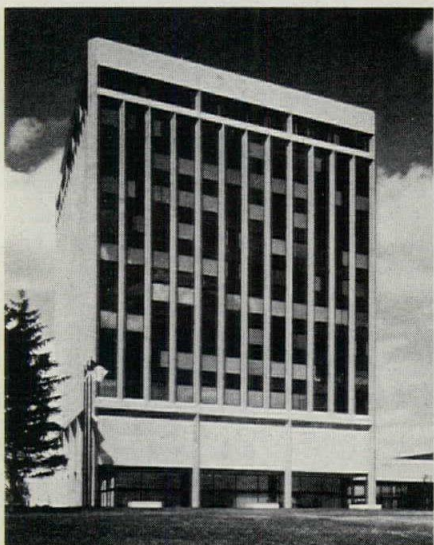
In the conversion to offices of an old brick warehouse (used temporarily as a university library) and fire station in Detroit, John Stevens Associates, architects, restored the original east façade and transformed the south elevation by applying a sleek, neat mirror glass and steel beam cladding system. The design



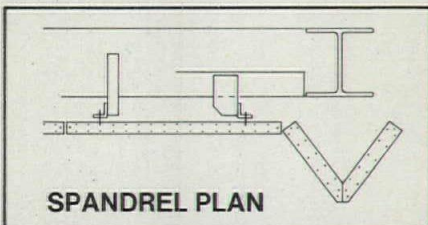
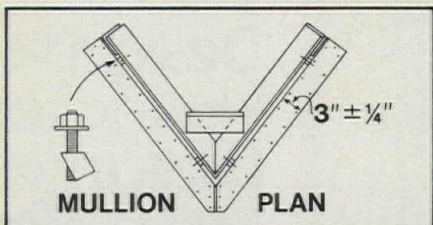
Above left: Restored east elevation.  
Above: New south elevation.  
Below: Views of the atrium.

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Architect: Graham Anderson Probst & White, Chicago, IL



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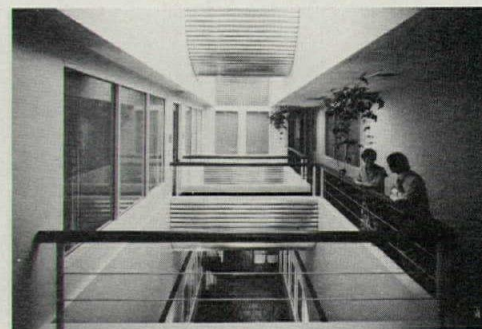
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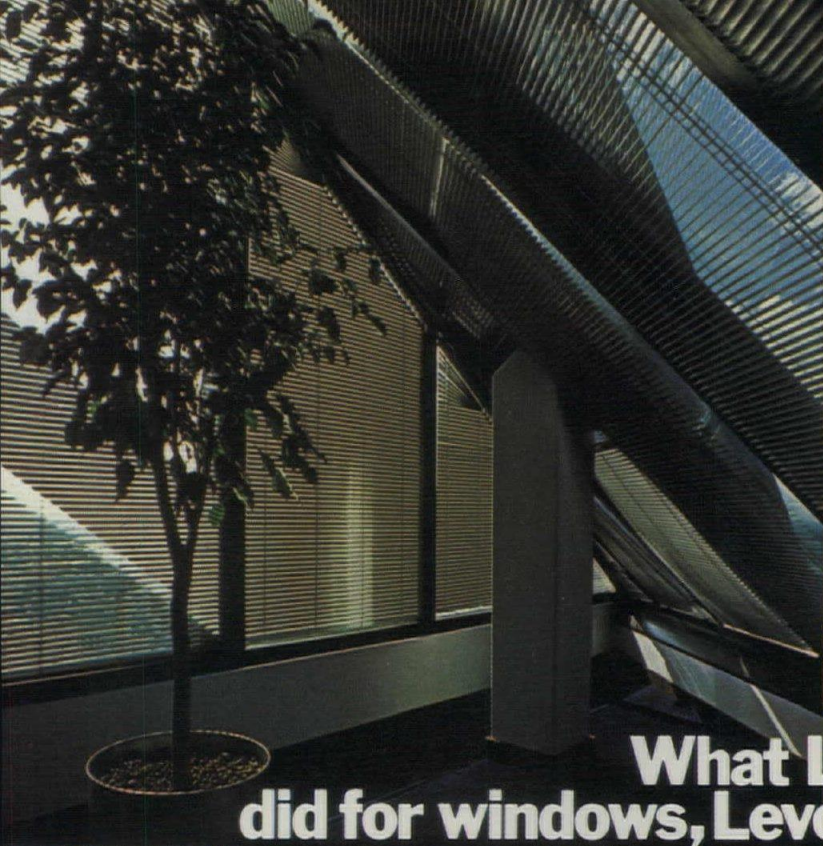
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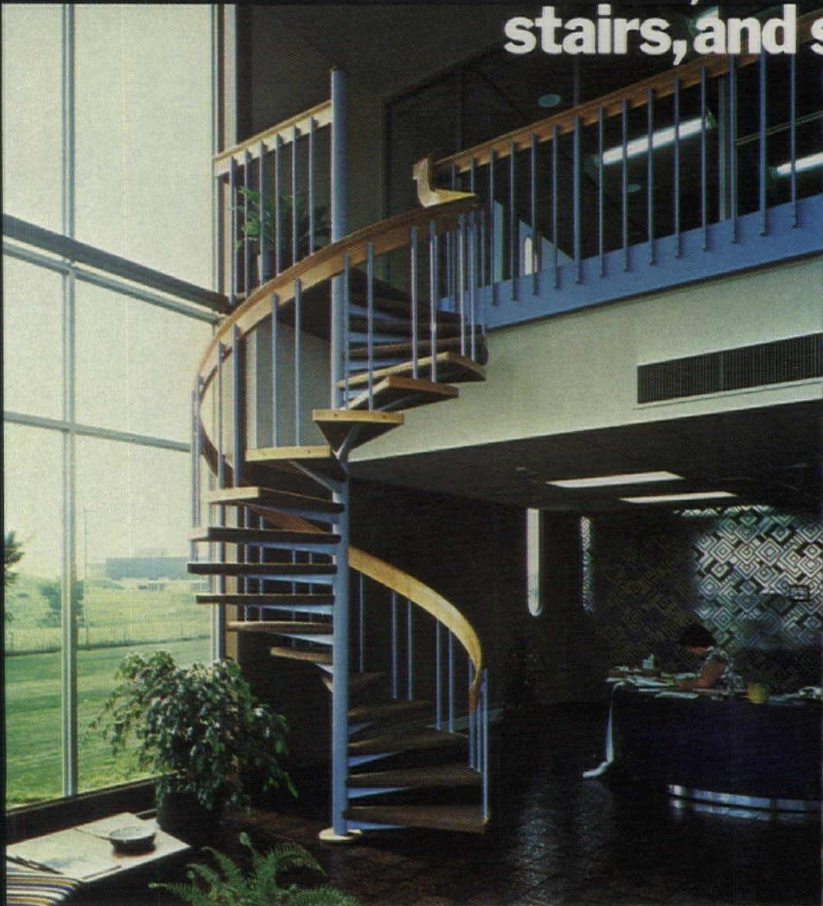


incorporates a 1200-sq-ft solar collector supplying warm air to the interior heating zones, with a single fan as the only moving part. Inside the building (now used for professional offices, with the architect as prime tenant) is a skylit atrium, created by removing large sections of the 11-in.-thick concrete and tile floor. The structural framework was retained, and a large concrete beam was used to span the atrium and support and entry bridge to an office suite on the second floor. A sweeping, curvilinear, polished aluminum ceiling forms a dramatic interior feature.

[News report continued on page 60]



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**Durable, clear, hard coating**

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### Meets safety standards

TUFFAK CM-2 meets all the requirements of a safety glazing material as defined by the Consumer Product Safety Commission's Architectural Glazing Materials Safety Standard

(16 CFR 1201), Categories 1 and 2, and the requirements for light transmitting plastic under building codes.



### Get the facts before you buy

CIRCLE THE READER SERVICE NUMBER before you buy or specify a window glazing material to solve your breakage or vandalism problems and get all the facts on TUFFAK CM-2. Other polycarbonates may be as tough, but none are more durable or more cost effective!

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TUFFAK polycarbonate is a combustible thermoplastic. Observe fire precautions appropriate for comparable forms of wood. For building uses, check code approvals. Access panels may be required for evacuation and venting of rooms glazed with TUFFAK. Avoid exposure to heat or aromatic solvents. Clean with soap and water. Avoid abrasives.

## Calendar

### Conferences

**Nov. 2-4.** Student Design Rally, Institute of Business Designers, Grand Rapids, Mi. Write Box 15747, Columbus, Oh 43215.

**Nov. 4-7.** International Symposium on the Impact of Climate on Planning and Building, Herzliya-on-Sea, Israel. Contact IFHP, Wassenaarseweg 43, 2596 CG The Hague, The Netherlands.

**Nov. 6-7.** Conference on Foundation Design Education, Boston. Write CFDE, Program of Continuing Education, Massachusetts College of Art, 364 Brookline Ave., Boston, Ma 02215.

**Nov. 7-9.** The Association of Business and Professional Women in Construction, Annual Conference, New York. Write: Nezzera Ablan, ABPWC, 2 Hillside Ave., Roslyn Heights, NY 11577.

**Nov. 9-14.** 35th IFHP World Congress on Community Planning and Development, Jerusalem, Israel. Contact IFHP, Congress Department, Wassenaarseweg 43, 2596 CG The Hague, The Netherlands.

**Nov. 12-16.** Society of American Registered Architects convention, Los Angeles. Contact Dwight E. Chenault, FARA, convention chairman, 1571 Fair Park Ave., Los Angeles, Ca 90041.

**Nov. 15.** Society of Commercial Archeology annual meeting, Office of Venturi, Rauch & Scott Brown, 4236 Main St., Manayunk, Philadelphia, Pa 19127. Contact Steven Izenour or Frances Hundt at the address above for information.

**Nov. 18-20.** International Energy Management & Facilities Improvement Show. Merchandise Mart, Chicago, Il 60654.

**Nov. 17-20.** Coastal Zone '80 national symposium, Hollywood, Fl. Contact Dallas Miner, Dept. of Commerce, Office of Coastal Zone Management, 3300 Whitehaven St. NW, Washington, DC 20235.

**Nov. 18-20.** International Energy Management and Facilities Improvement Show, Merchandise Mart, Chicago. Contact Expo Management Inc., Apparel Center, Suite 1048, Chicago, Il 60654.

**Nov. 22-25.** American Society of Landscape Architects annual meeting and exhibit, Fairmont Hotel, Denver. Contact ASLA, 1900 M St. NW, Suite 750, Washington, DC 20036.

**Nov. 25-30.** International Furniture Show, National Exhibition Centre, Birmingham, England. Contact BFM Exhibitions Ltd., 30 Harcourt St., London W1H 2A4, England.

### Exhibitions

**Nov. 8-29.** "Richard Meier: Everything for the Home: Furniture Drawings." Max Protetch Gallery, 37 W. 57 St., New York.

**Nov. 20-Feb. 15.** "The Avant-Garde in Russia, 1910-1930: New Perspectives." The Hirshhorn Museum, Washington, DC.

### Competitions

**Jan. 26.** Mailing deadline for International Conceptual Furniture Design Competition, cosponsored by *Progressive Architecture* and NEOCON. Contact Furniture Competition, Progressive Ar-

chitecture, 600 Summer St., Stamford, Ct 06904. For details see page 21.

**Jan. 30.** Entry deadline for Portland Golden Triangle Competition, an open planning/design idea competition for development of a major downtown site. Write D.L. Mason, L.A., Portland Planning Dept., 389 Congress St., Portland, Me 04101.

### Course applications

**Jan. 15.** International Centre for Conservation (ICCR) in Rome, Italy. 1982 advanced conservation courses. Inquire, Executive Director, International Centre Committee, 1522 K Street NW, Suite 530, Washington, DC 20005.

## Personalities

**William L. Ensign**, FAIA has been appointed Assistant Architect of the Capitol and Director of Architecture, Washington, DC.

**Virginia Dajani** has been offered one of eight planning and design Loeb Fellowships in Advanced Environmental Studies at Harvard University. Ms. Dajani is associate director of the Municipal Art Society and is editor of *The Livable City*, in New York.

**Peter Stamberg**, architect and furniture designer of New York, has been named director of design and development at Monarch Furniture, based in High Point, NC.

**Michael Graves**, architect, of Princeton, NJ, has been awarded the 1980 Arnold W. Brunner Memorial Prize in architecture from the American Academy and Institute of Arts and Letters.

[News report continued on page 64]

# RESPONSIVE

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# New independent tests prove: Halsey Taylor energy efficiency delivers the lowest life cycle costs.

ETL Testing Laboratories, Inc., Cortland, NY, an independent research and testing lab, recently evaluated comparable models of the four leading water coolers.\* Each was purchased from distributors' stocks without prior adjustment. The new generation Halsey Taylor water cooler was found to have the lowest life cycle costs of all. Lower than Sunroc, Elkay, and Oasis. Even in smaller buildings with just a few units, the savings can amount to thousands of dollars.

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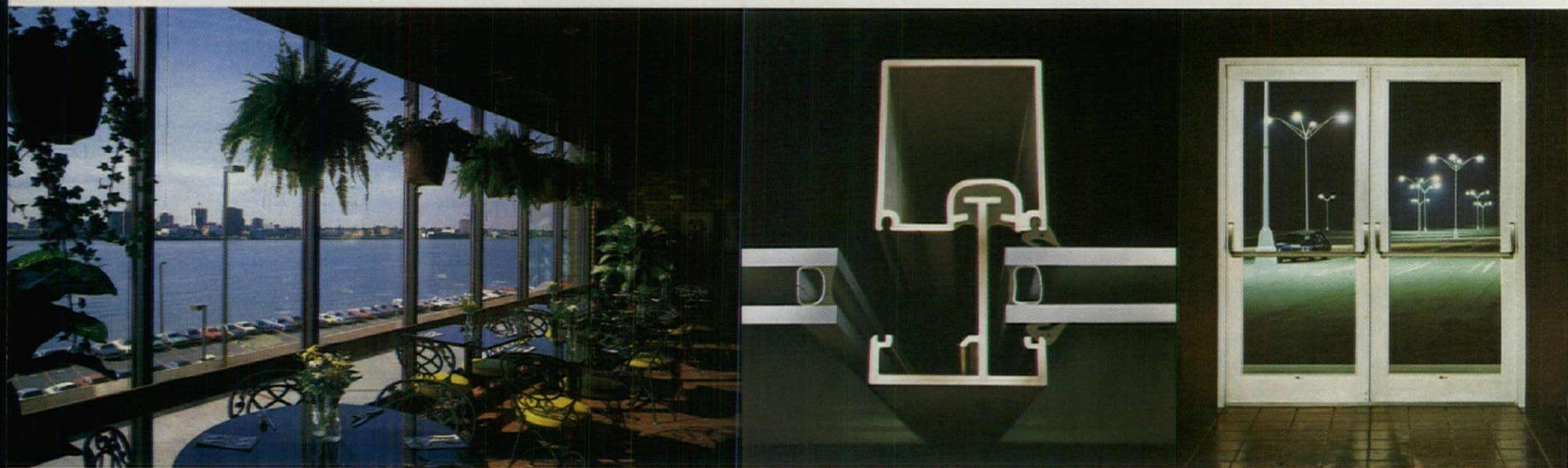
ETL's test results used ARI specification #1010-78 for schools, hospitals, and offices (40 hours per week usage) and a Halsey Taylor life cycle cost formula. Four comparable units were tested; Oasis ODP7M, Elkay EWA-8, Sunroc NSW-8, and Halsey Taylor WM8A1.

Halsey Taylor

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Energy costs. Life Safety Codes. Better security. Visual appeal. Building costs. Locations. These are just a few of the reasons why there's a remodeling boom happening in America these days. Remodeling in the 80's means more than just a pretty face. Building revisions need to work their way down to the bottom line. Fast.

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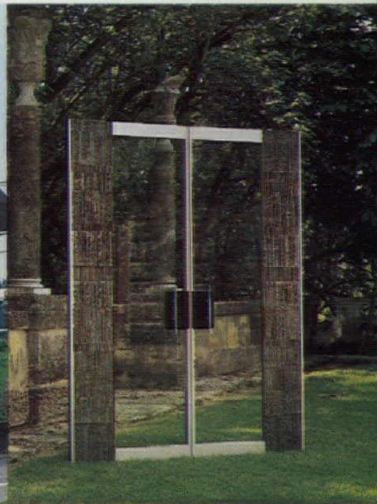
saves the expense and inconvenience of total window replacement and a revolutionary new entrance weather stripping system. Kawneer's new aluminum Thermal Entrance System complete with functional hardware, utilizes a thermally-clad door with insulating glass and is hung in a thermal frame assembly to help shut out energy losses.

Kawneer can also provide your building with a wide range of framing systems, windows and entrances, every one designed to help you keep your energy to yourself.

## Life Safety Codes, Security and Accessibility

Many of yesterday's buildings are actually out of compliance with today's Life Safety and Uniform Building Codes, not to mention societal needs. For these reasons, Kawneer has developed systems such as Panic Guard® Entrances, which help prevent illegal entry through paired panic entrances, and Paneline™, handsome, concealed rod

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exit devices that don't get in the way of people. For accessibility for handicapped persons, Kawneer Series 800 Barrier-Free Manual Entrances comply with varying state and local codes and also meet the demands of normal traffic flow. Another innovation is the Controller™ safety flush bolt

system in which paired entrances can have the safety required by building codes without sacrificing the security afforded by the traditional 3-point locking system.

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nature as its theme; and I-line Entrances, a collection of designer entrances which utilize narrow aluminum sightlines to create a sleek appearance.

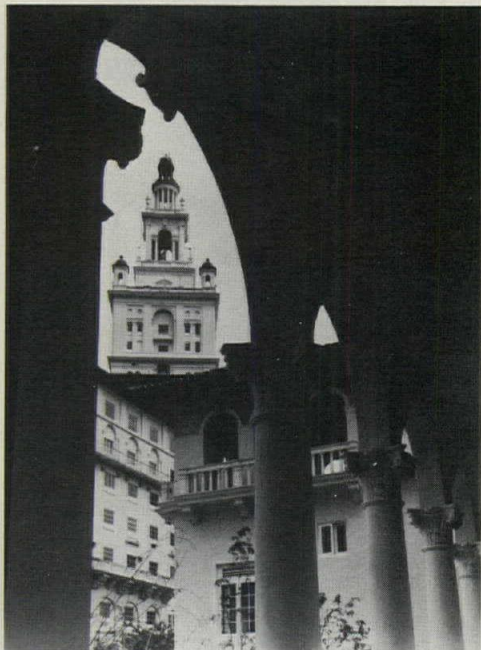
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## In progress



Country Club loggia, with Hotel Tower beyond.

**The Biltmore Complex restoration, Coral Gables, Fl.** Architect: Ferendino/Grafton/Spillis/Candela, Coral Gables, Fl. This 19.8-acre estate, developed in 1926 as a posh hotel and country club, is now being restored with the help of the original architectural drawings. In the spring of this year, the Country Club building was dedicated for

use, with the Metropolitan Museum and Art Center occupying 85 percent of the space. Galleries are located in the old ballroom and casino, a children's museum and auditorium on the lower level, an art school on the first floor, and a sculpture display on the terrace. The remaining space houses a public restaurant, a pro shop, and locker rooms for the golf course users.

The architects attempted to duplicate the original materials as closely as possible, including matching the handmade clay roofing tiles and the color of the original exterior paint; the ballroom's elaborate east window was restored using the 1924 specifications as a guide.

The Miami-Biltmore Hotel Tower, focal point of the site, is now being considered for conversion to apartments or condominiums.

**University of Virginia, Charlottesville, Va.** Architect: Frederick D. Nichols, Charlottesville, Va. Thomas Jefferson's "academical village" is showing signs of age. With its central Lawn bordered by two rows of student rooms and pavilions (the original professors' homes) connected by arcades, and the two Ranges beyond, which accommodate additional student rooms and Hotels (the original dining rooms) needs help. Wooden shutters are warped and peeling, shingles are loose, bricks are beginning to crumble, and on the south end of the west Range, roof beams are rotting extensively. In the rehabilitation, the original drawings are being followed to construct new cornices and shutters, hinges are handmade, and old brick is being reused. The only changes will be in the use of fir instead of pine for the cornices, nails instead of wooden pegs in the outlooks, and copper



The Lawn.

rather than tin for flashings. Costs are estimated at \$800,000, and application for funding has been made to the Virginia Historic Landmarks Commission.

**Playhouse Square Development, Cleveland, Oh.** Architects: Dalton, van Dijk, Johnson & Partners, Cleveland, Oh. In 1970, the threat of the wrecker's ball galvanized citizens to fight the demise of Cleveland's Playhouse Square, a theater district developed in the early 1920s. The Playhouse Square Foundation was set up, first, to demonstrate that Clevelanders would come downtown for first-class entertainment, and only then, to solicit money for physical restoration. The core of the six-block area is formed by the State, the Ohio, and the Palace theaters, all recently named to the National Register of Historic Places. The first two theaters were designed by Thomas Lamb, and the third by the Rapp Brothers, and will accommodate, [News report continued on page 68]



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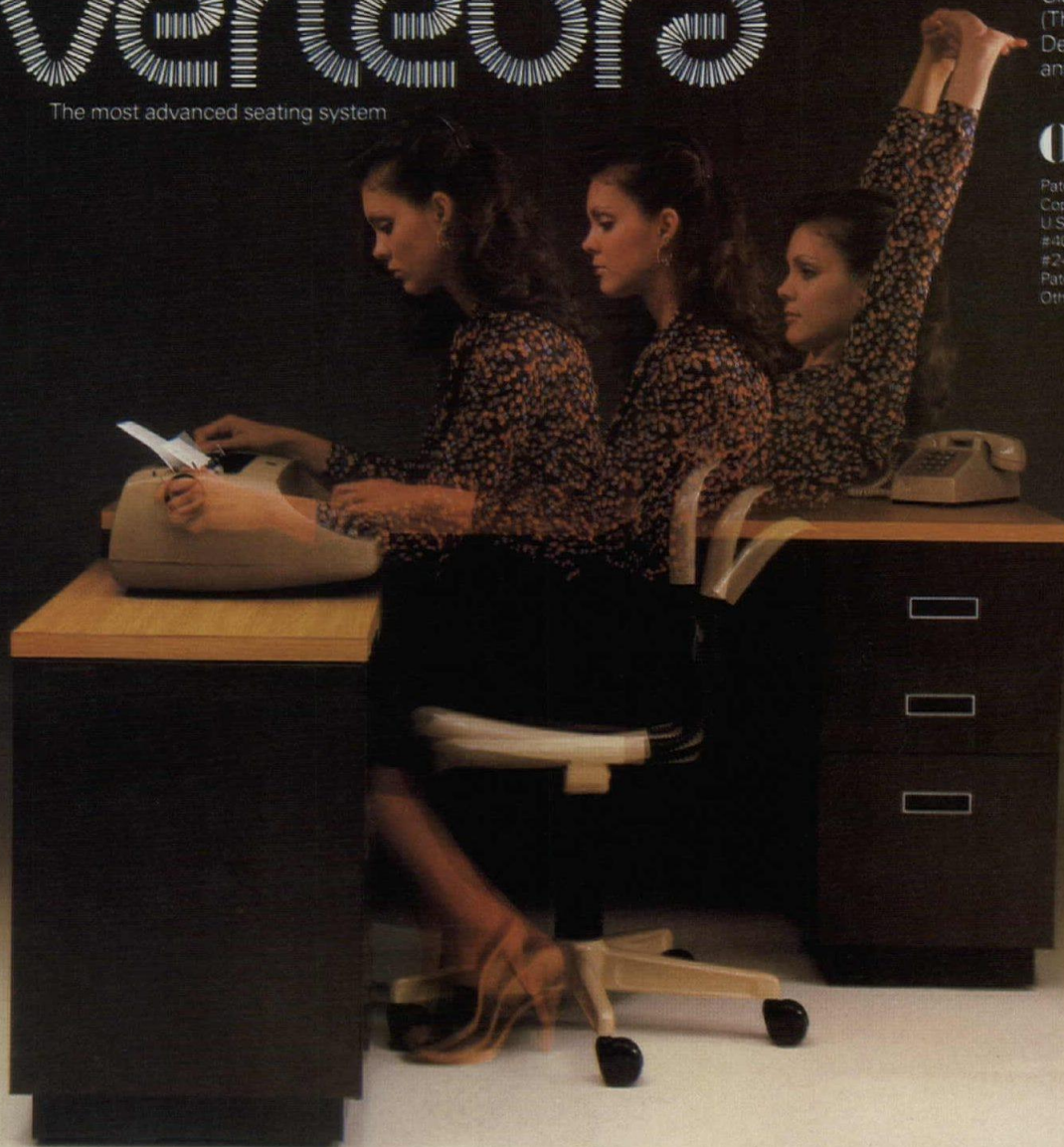
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# How do you make a conventional steel-framed building unconventional?

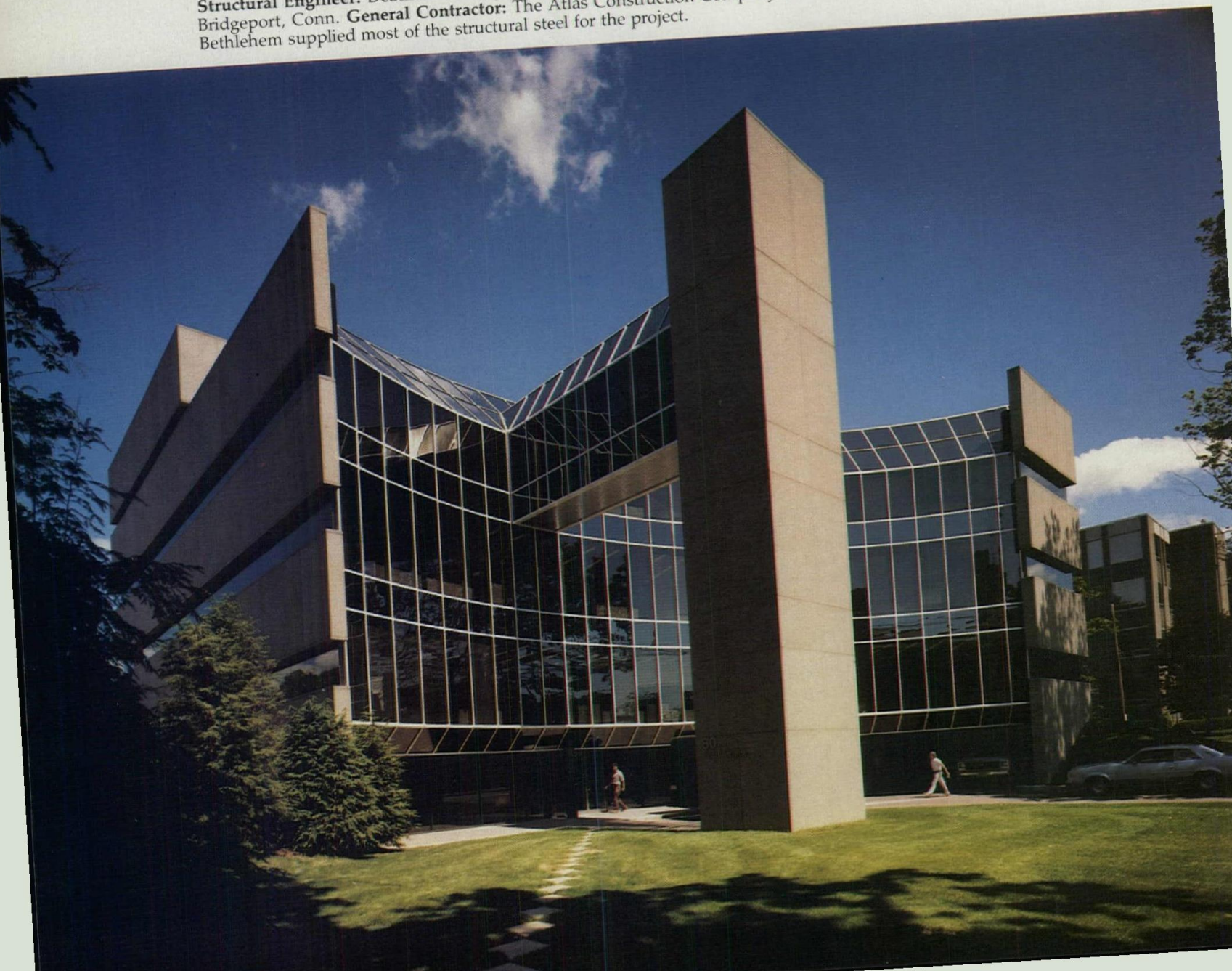
The Riviere du Loup Building, Greenwich, Conn., offers one solution—in steel.

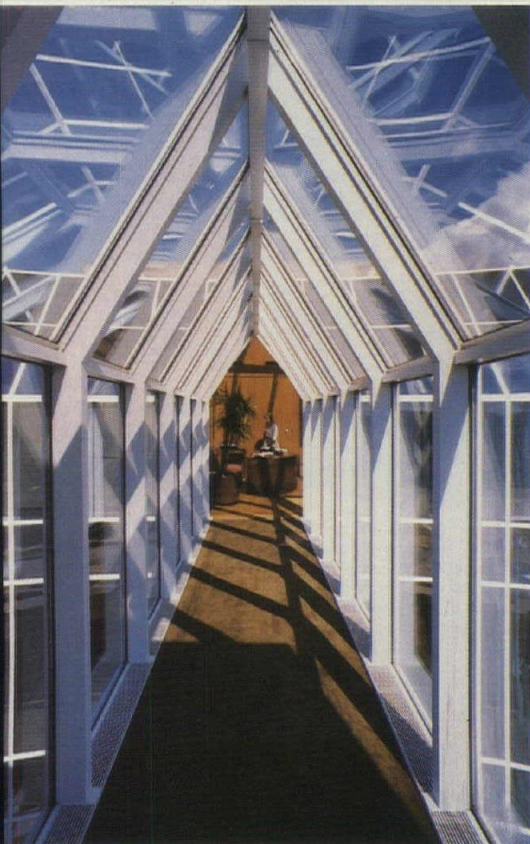
Architects Johnson/Burgee achieved the desired esthetics for this three-level structure by introducing a concave facade to what otherwise would have been a routine rectangular office building. In the process, they satisfied building code restrictions for both height and area.

## Cost studies point to steel

Both structural steel and reinforced concrete framing schemes were investigated for the three-story structure. Bethlehem's District Office Sales Engineer provided a quantity summary and a cost estimate based on the steel framing scheme prepared by the consulting engineers, DeSimone + Chaplin & Associates.

**Owner:** Riviere du Loup Newsprint, Ltd., Greenwich, Conn.  
**Architect:** Johnson/Burgee Architects, New York, N.Y. **Construction Manager:** Louis Lee, Inc., New Canaan, Conn.  
**Structural Engineer:** DeSimone + Chaplin & Associates, New York, N.Y. **Fabricator and Erector:** Leake & Nelson Co., Inc., Bridgeport, Conn. **General Contractor:** The Atlas Construction Company, Stamford, Conn.  
Bethlehem supplied most of the structural steel for the project.





A steel-framed pedestrian bridge (above) connects the free-standing elevator tower to the garage, ground, and third levels. The concave facade (left) emphasizes the entrance and preserves as much of the landscape as possible.

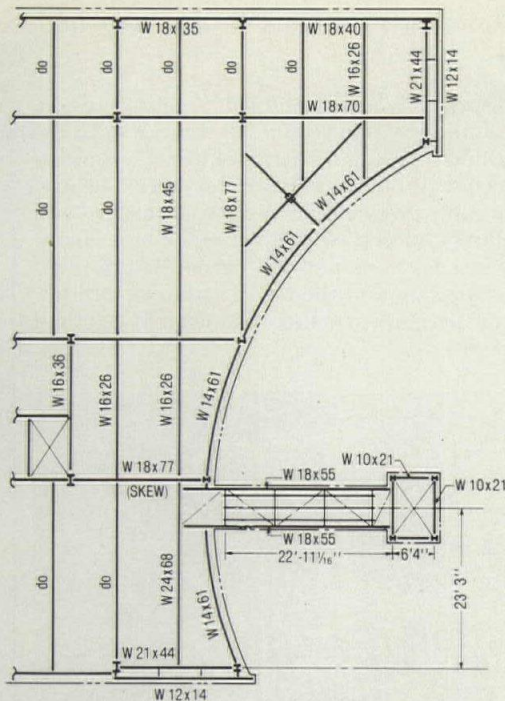
In the final evaluation made by the construction manager, Louis Lee, Inc., structural steel proved to be the least expensive framing method. The engineers explained, "Steel framing proved to be more efficient because we were able to minimize the construction depth of the floors by using shallower beam depths."

#### The structural system

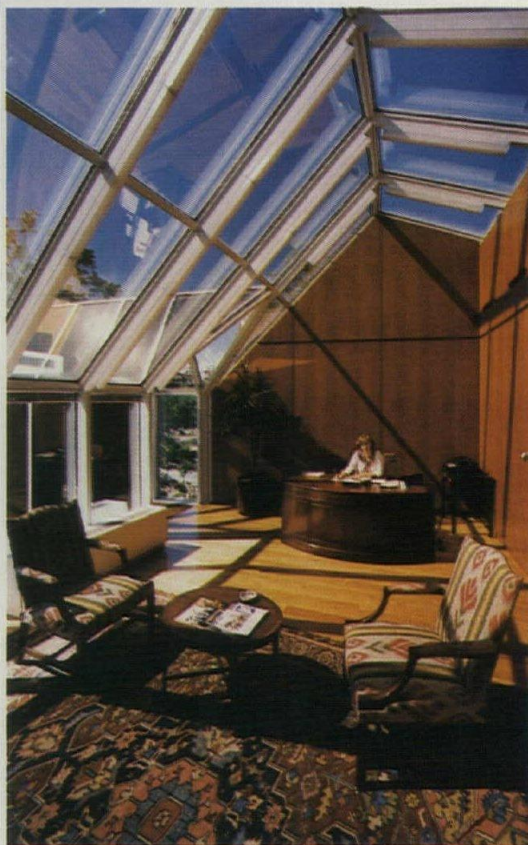
The structural system consists of a roof and the three steel-framed floors. The design is based on a nine-foot module. A ramped, underground garage provides parking for 60 cars.

The floor system is composed of a 2½-in. concrete topping poured on a 2-in.-deep composite steel floor deck, supported on structural steel filler beams. Lateral loads are resisted by X-bracing provided in the elevator shaft walls and in the stair walls of the building.

Two types of torsional considerations are involved. First, the



Framing plan for the third floor and pedestrian bridge to the elevator. The contractor reported, "Time was a key factor. We saved two to three months by selecting steel framing in lieu of concrete."



Intersection of the pedestrian bridge and the third level.

exterior face of the stone cladding on the north, west, and south faces is 2 ft. 3 in. outside of the column centerlines. Second, the curved edge beams at the east face are subjected to torsional loading.

On the curved face, the curved edge beams are restrained from excessive rotation by the use of additional supports. The spans of the curved beams are limited to 21 ft.

The stone cladding, interrupted by a glass panel at each level, is supported by a continuous lintel, hung from the floor above by hanger angles spaced at a maximum of 4 ft.

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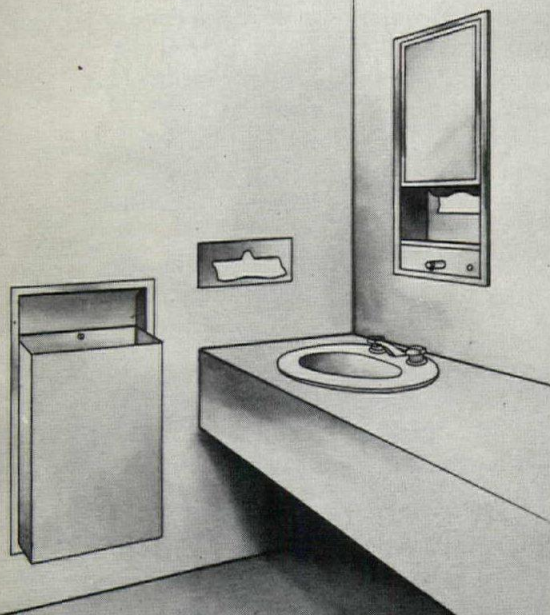
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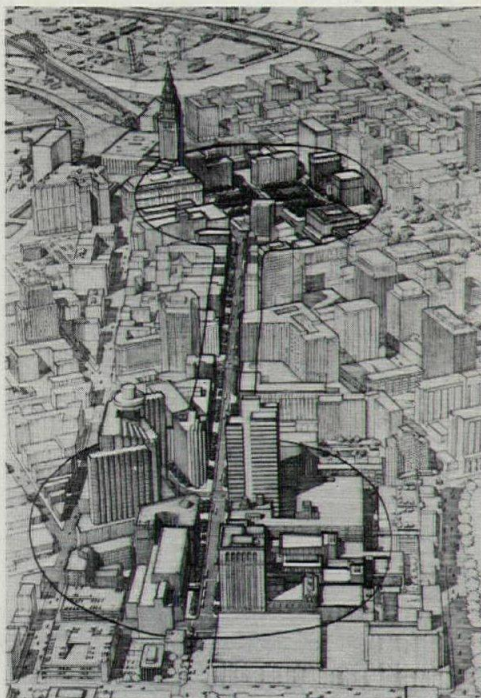
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News report continued from page 64

respectively, opera and ballet, cabaret, and a community playhouse. All interiors are extremely rich. Further architects' proposals include the restoration of the Allen Theatre, the improvement of pedestrian areas (with alleys and plazas) and vehicular movement, the redevelopment of adjacent deteriorated properties, and the construction of a rather curious glass structure to house a Museum of Light.



Above: Playhouse Square: Euclid Avenue core.

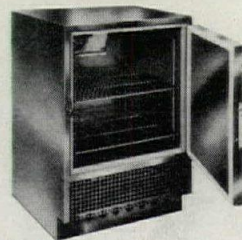
Below: Palace Theater stairway.



**Claridge Hotel and Casino, Atlantic City, N.J.** Architects: David Jacobson Associates, Atlantic City, N.J. The University of Pennsylvania students of Steven Izenour, an associate of Venturi, Rauch and Scott Brown, Philadelphia, recently prepared an exhibit at New York's Cooper-Hewitt Museum, "Beach, [News report continued on page 74]

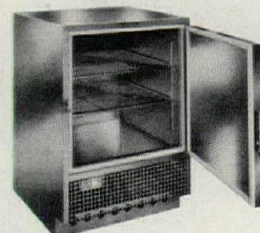
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**UC-5-F-BC** freezer is equipped with automatic timer electric defrost. Capacity—5.4 cu. ft. (155 ltr.)

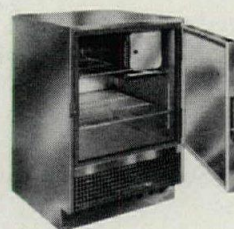


**UC-5-CW\*** refrigerator with cold wall cooling system is equipped with push-button defrost, automatic reset and condensate evaporator. Capacity—5.4 cu. ft. (155 ltr.)

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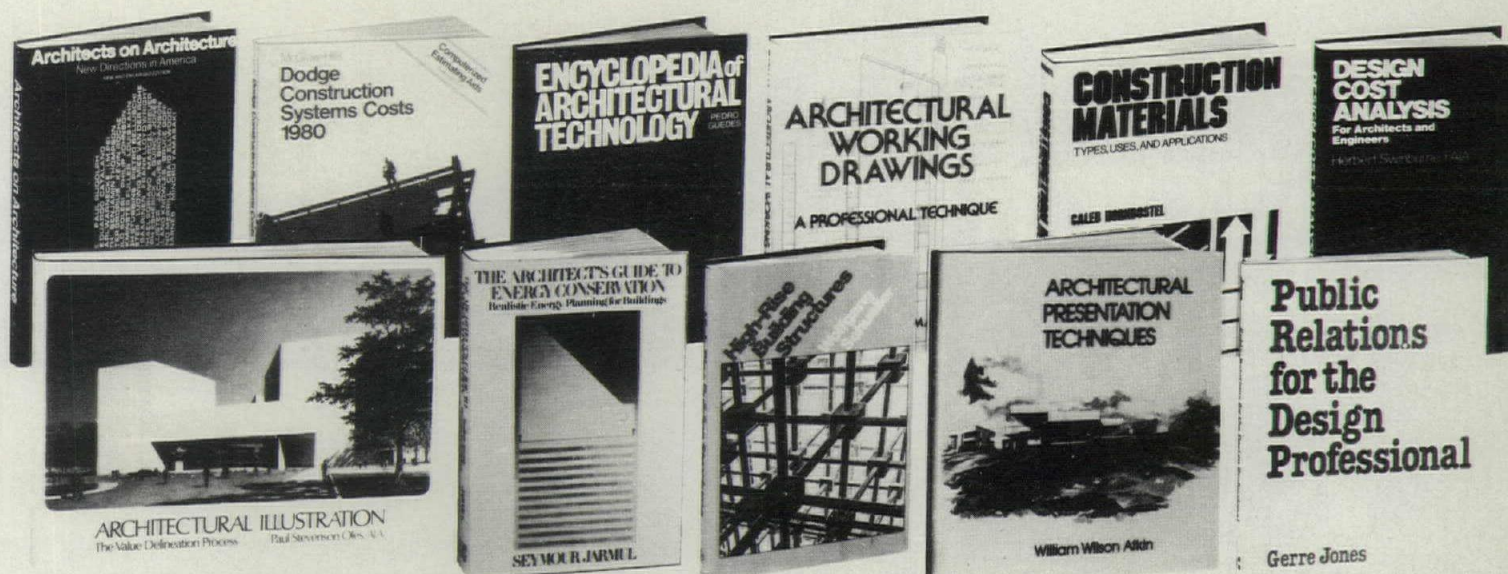
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Refer to Sweet's Catalog 11.20/Je for quick reference.

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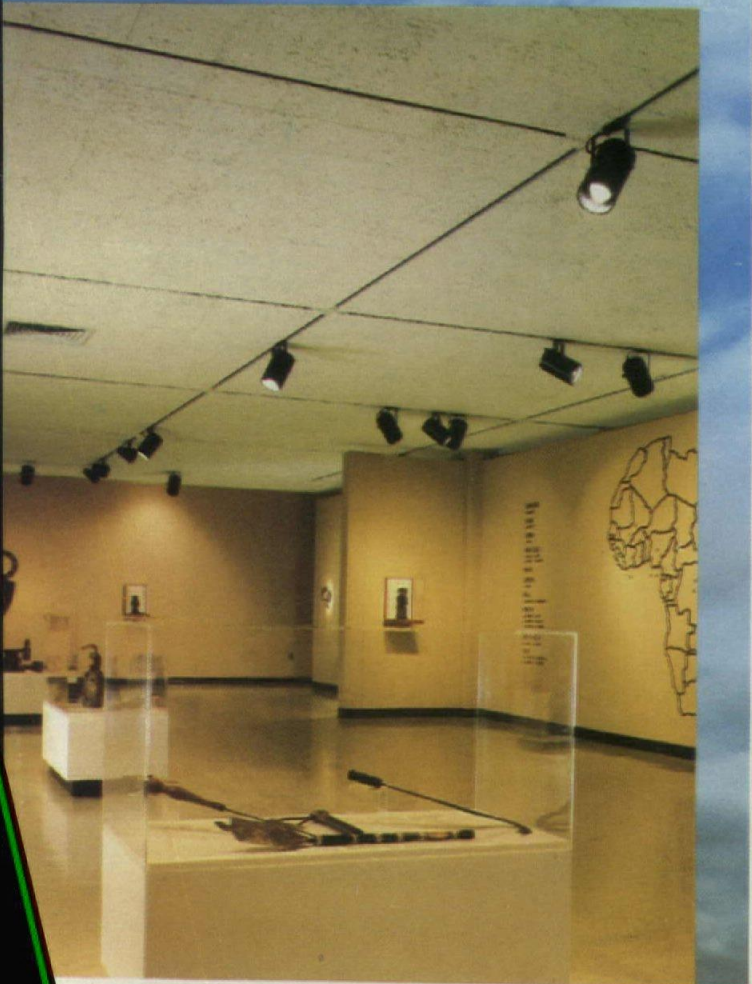
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Left, Acoustone Yellow Frosted ceiling.

Right, Acoustone "F" Fissured pattern ceiling.  
Tougaloo College Collection, Mississippi Museum of Art.



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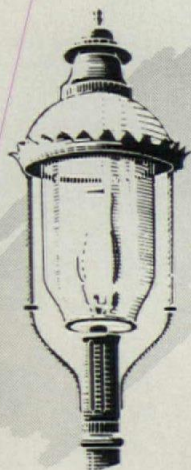
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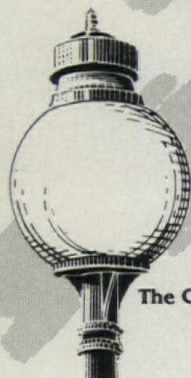
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on a  
WELSBACH.



The Boulevard

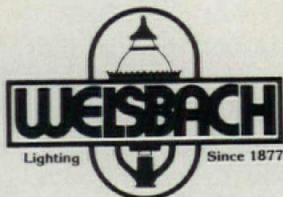


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News report continued from page 68



Boardwalk, Boulevard," showing the changing face of the famous, fantasy-inducing resort town, Atlantic City. Casino developments have not all been sympathetic to the historic character of the city and its boardwalk, but the Claridge Hotel and Casino project, on Brighton Park at the Boardwalk, intends to retain the existing structure, with an addition for casino and pool facilities. Anodized aluminum frames will replace all exterior wood sash; mechanical and electrical systems will be totally replaced; a curved glass entrance canopy will be added; and the interiors will be redone, retaining the "design flavor" of the area, including a "stylistic adaptation of the English Brighton Pavilion" in the hotel lobby. Completion is expected in early 1982.



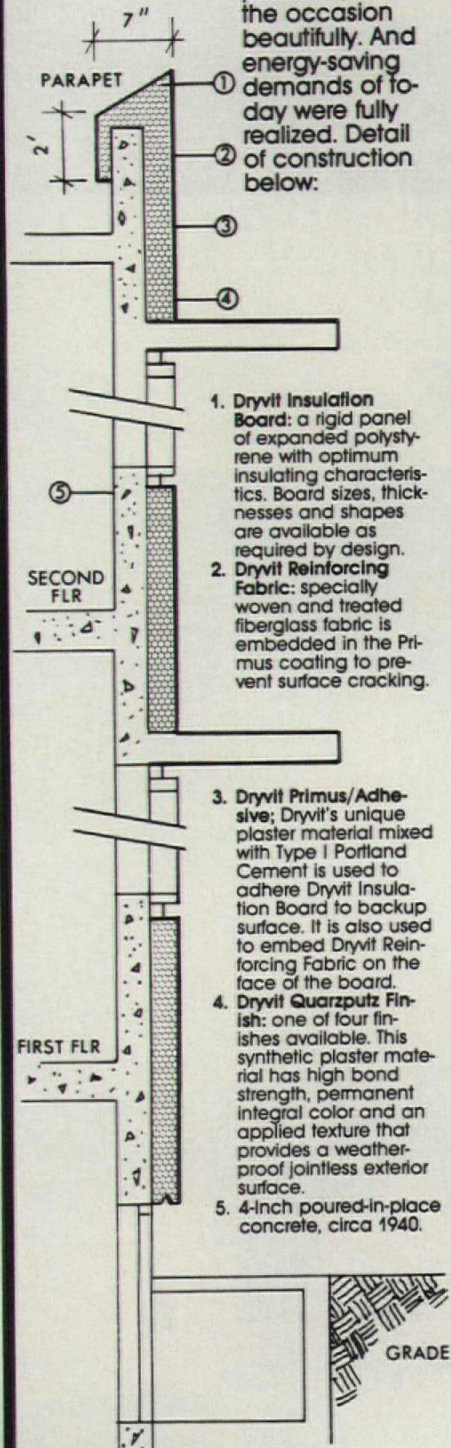
**The Pacific Lumber Company Headquarters, San Francisco, Ca.** Architects: *Environmental Planning & Research, Inc., San Francisco, Ca.* This building, the first to follow the design guidelines imposed in 1972 when the mid-19th Century Jackson Square was declared a historic district, aims to be a "good neighbor" sensitive to its surroundings, not a historic imitation. It is massed to create a transition between the adjacent financial district and its lower Jackson Square neighbors, with a brick-surfaced diagonal (bulk-reducing) tower with landscaped setbacks at heights reflecting adjacent rooflines. Diagonal window bays are self-shading, reducing heat gain. At ground level, a 3-story public concourse diagonally connects the two cross streets and gives access to the retail spaces. Completion is scheduled for next autumn. [News report continued on page 76]

**dryvit®** System Inc.  
**OUTSULATION™**

## The answer to retrofit of concrete walls.

This California retrofit (facing page) had to meet the challenge of poured-in-place concrete walls erected some forty years ago.

Dryvit, in a conventional wet application, rose to the occasion beautifully. And energy-saving demands of today were fully realized. Detail of construction below:



**DRYVIT SYSTEM, INC.**  
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Plant Locations: Warwick, RI and Tulsa, OK



Energy saving can look cool  
in California.



# dryvit<sup>®</sup> OUTSULATION<sup>™</sup>

Massive insulation placed on exterior walls  
got this railroad's retrofit off on a fast track.

Architects Albert C. Martin & Associates faced one of the largest and most complex retrofit jobs in Southern California when the Santa Fe R.R. took over 3 buildings as their Western Regional Headquarters.

The challenge was to retrofit with an emphasis on energy saving. And to accomplish the whole project within a year!

Insulation plans for two buildings called for an exterior system to conserve interior space. And the choice was Dryvit Outsulation. Why Dryvit? Because Dryvit not only met

California's Title 24 energy and insulation code, but it offered many additional advantages.

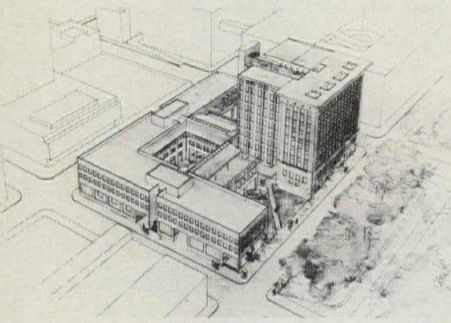
Dryvit went up fast. The lightweight 3" thick insulation boards on the outside were easy to work with and bonded directly to the existing walls. The Quarzputz Finish, unlike stucco, promised to be crack-free under climate changes. At the same time, Dryvit offered massive exterior insulation that sealed thermal bridges, equalized outside temperature thus minimizing thermal stress.

The Santa Fe Railroad was on the right track with the Dryvit System. Objectives of handsome buildings and energy conservation were met. On time and at a competitive cost.

Let us prove how Dryvit can work for you. Call or write, stating application: new construction or retrofit.

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**Wainwright State Office Complex, St. Louis, Mo.** Architects: Team Four Inc., St. Louis, Mo; Hastings & Chivetta; Mitchell/Giurgola, New York, NY. Louis Sullivan's 1896 Wainwright Building will be totally rehabilitated in this project to consolidate State offices and to reinforce the development of

Downtown St. Louis. New construction on the rest of the site will be three stories high and L-shaped, leaving a variety of public open spaces at ground level. The competition-winning preservation and expansion scheme (P/A, Dec. 1974, p. 22) is now proceeding after a long delay (P/A, April 1978, p. 45), and completion is expected in 1981.

**The Cyrus McCormick Mansion Condominiums, Chicago, Ill.** Architects: Nagle, Hartray & Associates, Chicago. The McCormick Mansion, built in 1892, is the only remaining building in Chicago designed by Stanford White of McKim, Mead & White. The restoration follows the Chicago Landmarks Commission guidelines, retaining the exterior features of the building with its five stories of pale reddish stone and buff-colored brick, elaborate terra-cotta trim, iron grillwork, and balconies supported by polished granite columns. Inside, too, as many of the interior details are being



kept as possible, including the oak and wrought iron spiral staircase and the walnut-paneled library. But accommodation is being made for three four-story townhouses, four two-story apartments, and two one-story suites.



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Rouse Residence  
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**The Golden Gate Park Conservatory, San Francisco, Ca.** Original construction: Lord & Burnham, New York. Renovation is in progress in the central domed pavilion, with restoration to follow on adjoining wings, of this Victorian greenhouse built in 1879 and now listed in the National Register of Historic Places. Hand wood-turning is necessary to reproduce the intricate filigree of the building, sample templates are used to match the panel moldings, and an elaborate interim support system has been erected as all the 24 main structural columns are being replaced.



**Olympic Hotel, Seattle, Wa.** Architects: Naramore, Bain, Brady & Johanson, Seattle. George B. Post & Sons was the original architect for this 1924 Italian Renaissance-style hotel, owned by the University of Washington and placed on the National Register of Historic Places last year. It is now undergoing extensive renovation, with plans for a new Grand Entrance with a landscaped court, a skylit atrium lounge, a new spa complex with a conservatory-roofed swimming pool, and enlarged guest rooms. The main lobby and several other public rooms will be restored with appropriate materials.  
[News report continued on page 79]


# FLEXCO **Radial** Rubber Tile and Stair Treads

For safe footing and good looks in high traffic interiors . . .

This unique new rubber floor tile is designed especially for interior floors where safe footing is required and handsome, easy to maintain appearance is desired. 1" diameter raised studs molded onto a special compound of tough, extra resilient rubber provides greater traction by allowing dirt and spilled liquids to drain off the walking surface. Extra resilience contributes substantially to safe footing.

Radial rubber tile is recommended especially for high traffic areas such as air terminals, shopping centers, ramps, elevator lobbies, stair landings and offices. It is made in two profile designs and in overall thicknesses of 1/8" and 3/16" with smooth back, and .210" and .235" with Acoustibak™.

Flexco also makes matching radial rubber stair treads as well as a complete line of rubber and vinyl treads, risers and stringers, rubber tile, conductive vinyl tile, cove base and vinyl carpet accessories.

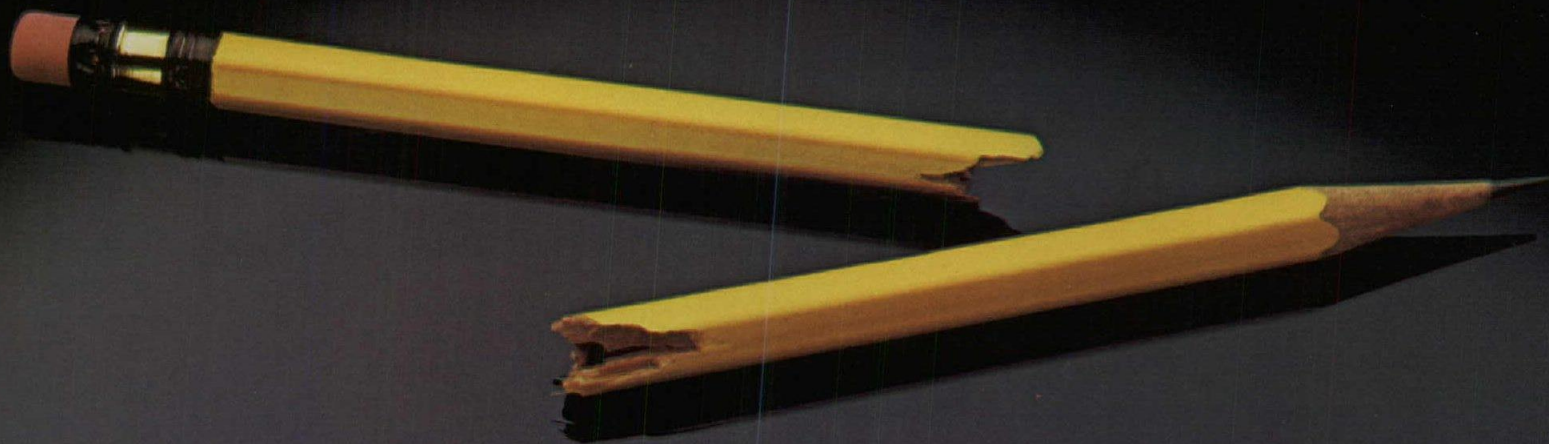
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Circle No. 328





# End of an era in client billing.

Keeping track of client phone charges by manual logging is notoriously ineffective. In fact, industry estimates show that the average architectural or engineering firm absorbs 10 to 15 percent of those charges—simply through doubts about their proper allocations. There's another loss, too—of professional and clerical time spent in the month's-end allocation process.

Now the Bell System can provide electronic-age assistance for this chore, with precision and speed that pays off every month. You'll save time, be certain of collecting a far higher percentage of billable phone charges, and look more professional doing it.

A variety of Bell products and services can be applied, depending on the scale and complexity of your firm's needs. The answer could be as simple as having one line dedicated to long distance. Or you might need a system that automatically records and allocates charges.

Your Bell System Account Executive can analyze your operations, and bring you a new, more profitable era in client billing. It makes very good sense to put our knowledge of advanced communications to work for your business.

**The knowledge business**

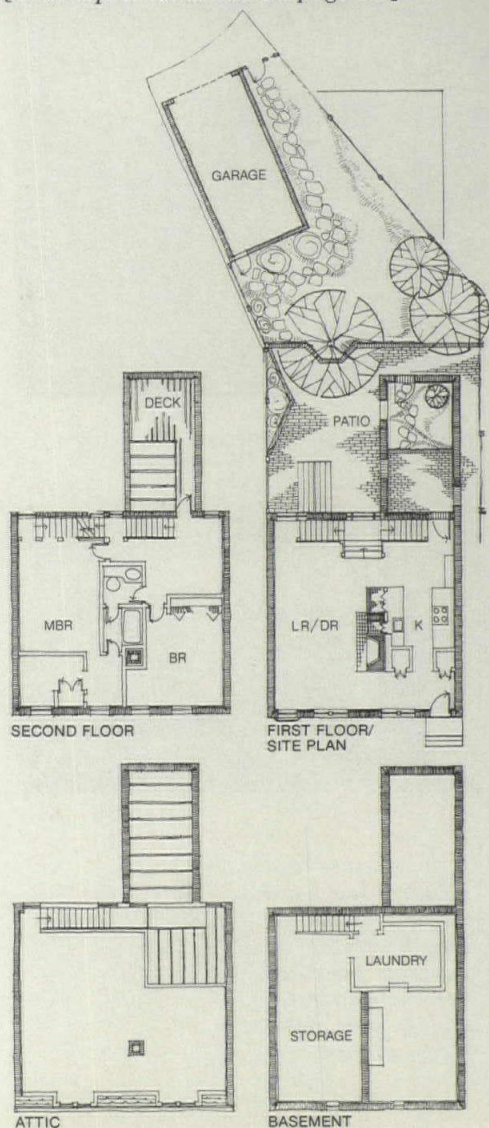


## In perspective

### Old Lancaster

The revival of the center of Lancaster, Pa., has gotten an encouraging boost through the rehabilitation of a three-acre residential enclave just two blocks from the city's main square. The tract, a designated redevelopment area, contained 59 old masonry buildings, dating from 1750 to 1930, most of them vacant and many in advanced stages of decay—plus a scattering of vacant lots. Now the tract has been transformed into 58 rehabilitated houses, with amenities such as private garages, walled patios, and roof decks. Plans provide for 13 new units, as well, to fill in gaps. The project was carried out by Old Town Lancaster, Inc., an organization representing DePaul Design (interior planning), deVitory, Gilbert & Bradley (architects, planners), High Industries (developers), and Martin & Mohler (construction).

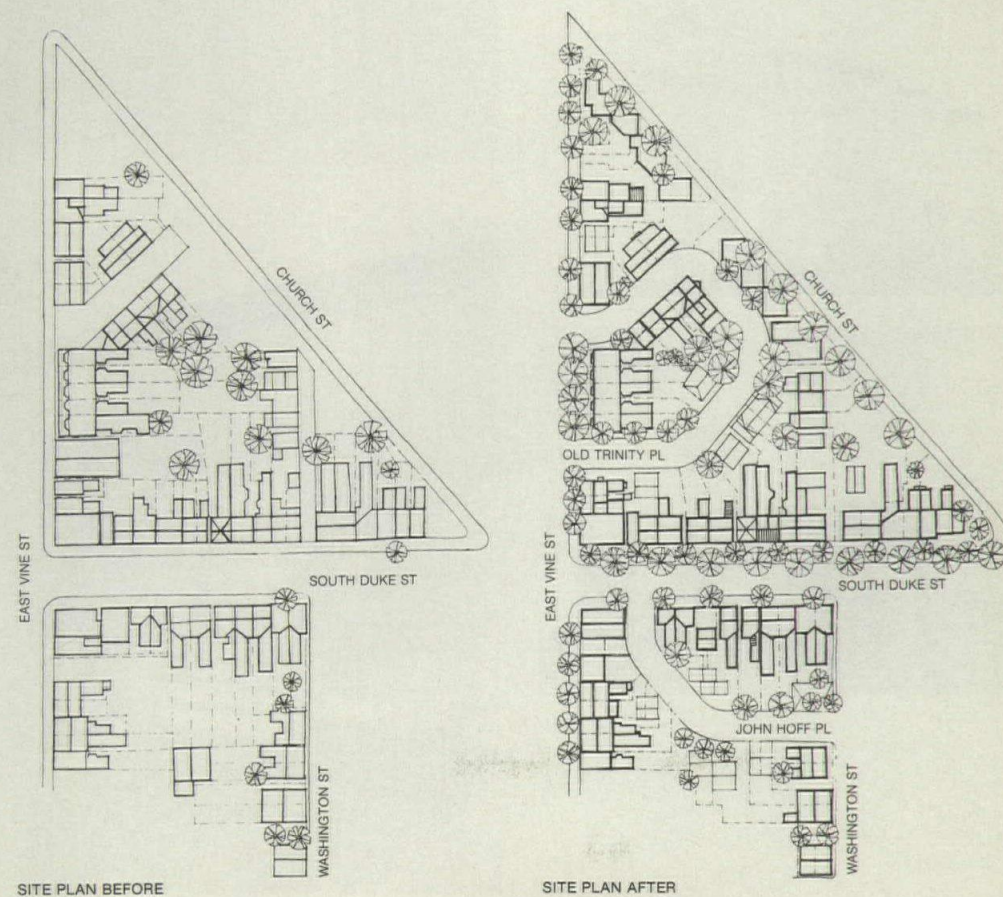
Because of the wide diversity among the existing buildings, their differing amounts of salvageable interiors, and their irregular distribution on oddly-shaped parts of two city blocks, the sponsors decided to make a virtue of variety. They found it desirable in a few cases to make one house out of two, or two out of one, and they realigned many



Found architecture in old Lancaster.



New Street.



of the old lot lines to yield more usable outdoor spaces. New streets curving through the interior of both blocks provide access to garages and some of the houses. The filling of vacant lots, the placing of utility lines underground, and new landscaping have given the whole area some coherence, though unpredictable shifts of form and detail remain the visual theme.

In the reworking of individual houses, a similar ad hoc, serendipitous process went on. Old mantels, balustrades, and windows appear amid new construction, with occasional transfer of components from one house to another. On some houses, the typical one-story rear wing supports a roof deck, and parts of some rear wings survive only as masonry-walled patios. A wide choice of interior layouts was developed, depending on the extent to which original partitions and floors could be revised. By completing work on some houses while decisions were being made on others, the developer-design team was able to feed back some of the lessons of the construction and marketing processes into the design of later houses. [JMD]



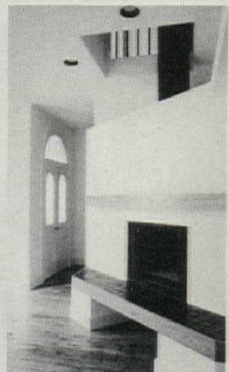
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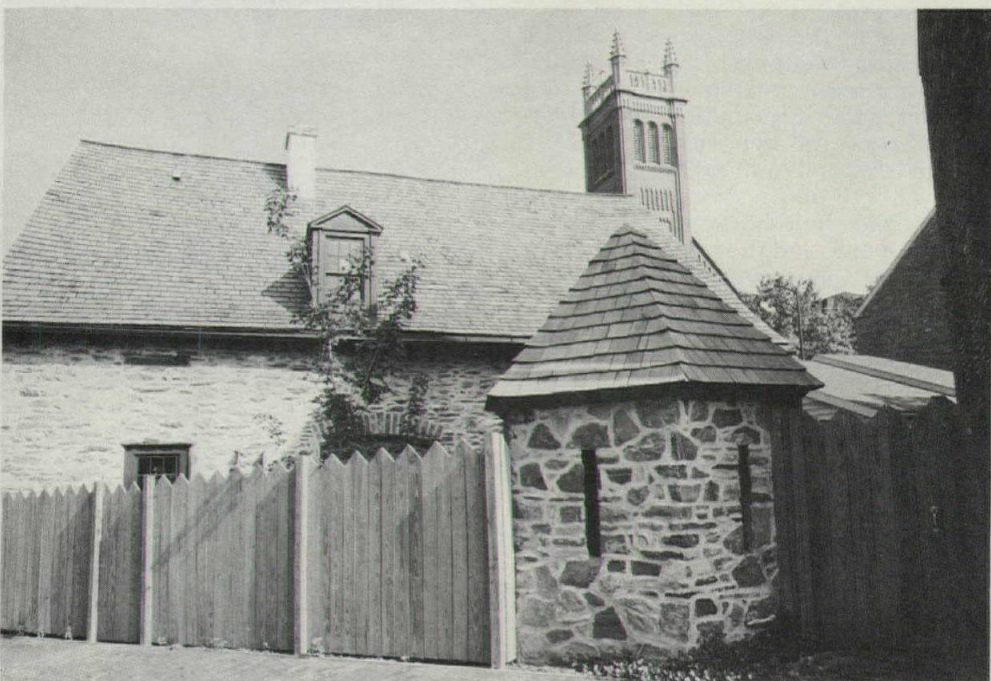
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4



5



6



7



8

- 1 New entrance façade.
- 2 Restored row house.
- 3 Restored fireplace.
- 4 New fireplace.
- 5 Diversity preserved.
- 6 Stone architecture.
- 7 Old stairway restored.
- 8 New stairway.

# 'CLOSE HARMONY'



## In Graceful Tension Structures By Helios.

The delicacy and beauty of these tensioned membrane structures is thoroughly practical. In this economical shelter for an outdoor music amphitheater, the natural beauty of the

site is preserved, with only minimal disturbance for footings for structural elements. The smaller white tensioned structure at the Aspen Design Conference in Colorado is even simpler, facilitating its erection and dismantling each year.

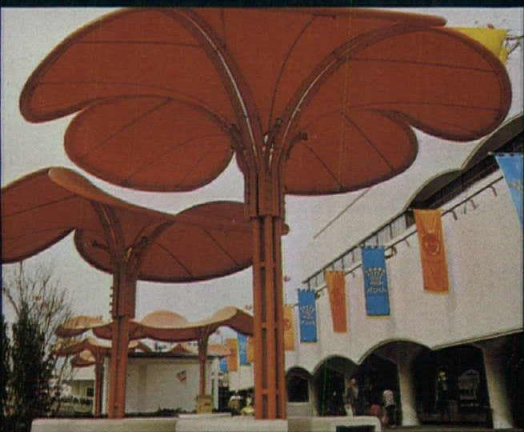
All these structures, including the festive rest area sunshades, are fabricated of vinyl-coated polyester material held in tension on a steel framework. The result is a lightweight, rigid structure engineered to withstand heavy wind. Though a tensioned membrane structure is in a higher price class than a tent, it offers far greater strength and durability. Compared to alternative structures of wood, steel or masonry, it typically results in important cost savings.

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# Why did the new Atlanta Airport choose gas air conditioning? Pure economics.



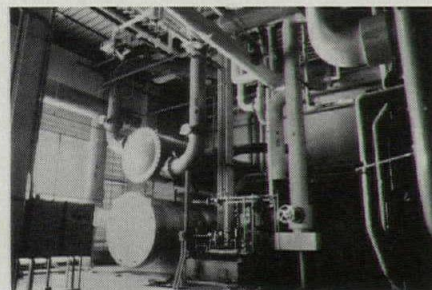
Architects, Engineers and Planners: Stevens & Wilkinson; Smith, Hinchman & Grylls; Minority Airport Architects & Planners.

In the world's largest airport terminal complex, designed to serve over 50 million people a year, air conditioning is a prime consideration.

When Atlanta's engineers examined the systems meeting their specifications, they decided on heat driven equipment as the lowest energy user and the most cost-efficient based on life-cycle analysis.

Their selection was a steam operated turbo-absorption air conditioning system. Designed for future growth, this 7,500 ton system has one of the lowest energy consumption rates per ton hour of cooling available. The primary fuel is natural gas.

Since gas offers total system efficiency, the new Atlanta Airport also depends on gas for heating. But not only large-scale buildings can benefit. Gas heating/cooling systems can provide operating economies in smaller buildings as well. For details on such integrated systems, contact your gas company.



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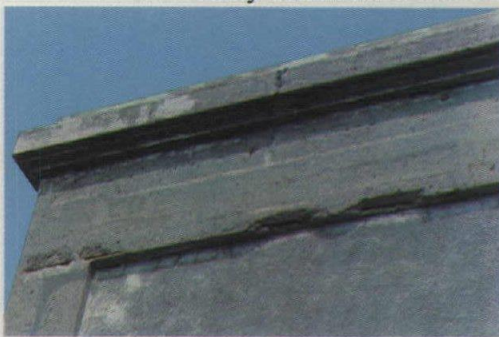
**THE  
BUCK  
STOPS  
HERE!**

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# The great Indiana cover-up.



Year after year of harsh Indiana weather had taken its heavy toll on Richmond's Coca-Cola bottling plant. In places, the concrete had become so badly deteriorated that rusting tie rods were exposed.



But new buildings are very expensive these days, and inside, the building was still perfectly usable. So after it was determined to be structurally sound, Coke decided to restore their existing one.

General Contractor V.H. Juerling & Sons, Inc., began by sandblasting the entire structure, chipping away all fragmented and weakened concrete and replacing the rusted tie rods.

Then the application contractor, Ralph Wisenhunt Co., brought the surface back to its original form with Thorite. Thorite is a non-slumping, quick-setting patching material that restores even vertical concrete without expensive formwork.

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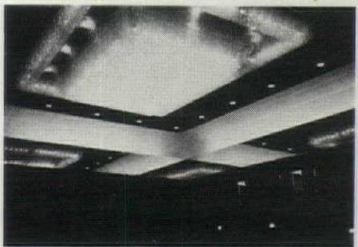
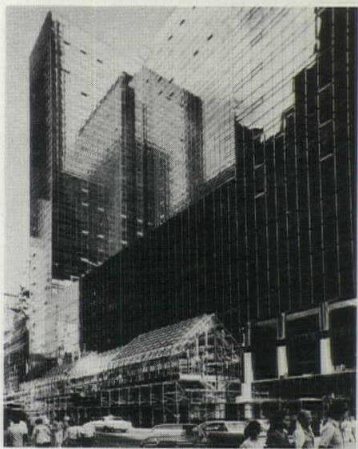
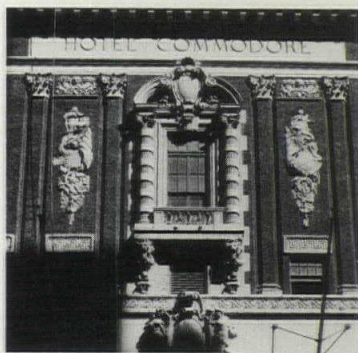


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# Rating reuse

On a scale of 1 to 10, the reuse projects shown on this page illustrate extremes. In the critical look at reuse that follows, everything else falls somewhere in between. All the projects involve commercial use, now the largest segment of the remodeling market.



Detail above entry of Hotel Commodore before renovation (top), entry facade toward end of new work (middle), and "restored" ballroom (bottom). Contrasting is the Gold Room of Helmsley Palace Hotel (top right) in Villard Houses.

With the growing practice of reusing old buildings, they become increasingly subjected to the same pitfalls and errors that can be found in new work. But for too long now, an unspoken conspiracy has kept silent the discussion of such matters, fearing that any criticism is detrimental to the whole preservation movement. Today, though, a \$40-billion-a-year market is too big for such an attitude. In this issue, P/A takes a *critical* look at some recent projects that have been reused for commercial purposes. The examples vary according to the degree of incursion; some illustrate that even when working with an intact original shell, new design elements can be so disruptive that demolition would have been little worse.

The most one could probably expect in reuse efforts can be seen in the new Helmsley Palace Hotel in New York, which rises behind the landmark Villard Houses on Madison Avenue. While McKim, Mead & White's Italianate palazzo of 1882 was protected by law (some of the back was removed, though, for the new hotel), the interiors, at least in the early planning stages, were not. Stanford White's Whitelaw Reid rooms in the southern wing of the six-house complex have been called among the best rooms in America, and they are now exquisitely restored for public use as part of the hotel. Although it cost owner/developer Harry Helmsley a great deal more to work around the Villard Houses and the Whitelaw Reid rooms, an agreement was reached whereby the hotel was given a height increase for his doing so. To a very large degree, everyone won. Emery Roth & Son's hotel tower, however, is hardly the unqualified 10 that their preservation architect James Rhodes was able to achieve for the restored rooms.

At the opposite extreme is the new Grand Hyatt Hotel, which is made out of the old Commodore Hotel at Lexington Avenue and 42nd Street. The original building, although not a landmark, wasn't all bad. It was designed by Warren and Wetmore as a companion to their Grand Central Terminal next door, and was the largest hotel in the world at its opening in 1919. Ten years later, *Mid-Manhattan* (journal) noted that "the beauty of



Photo: Cervin Robinson

its design and interior decorations and furnishings has few rivals."

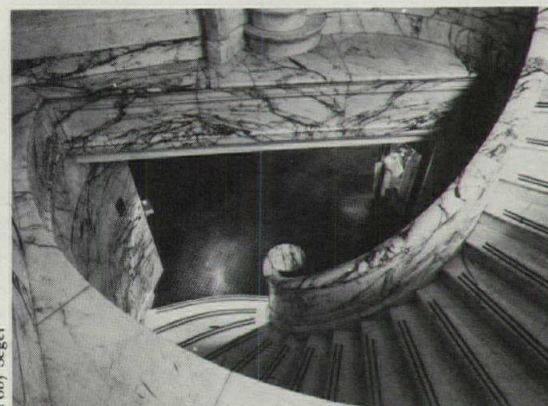
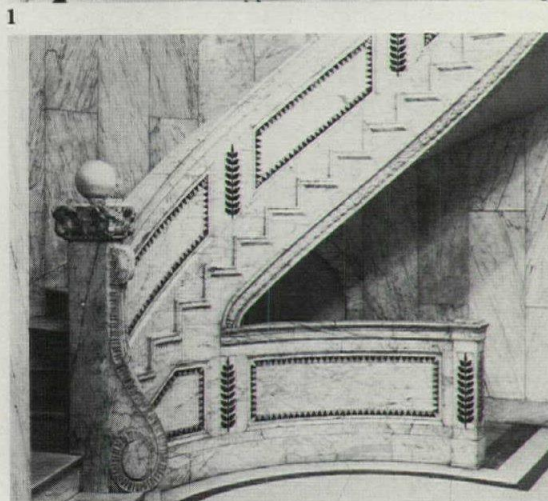
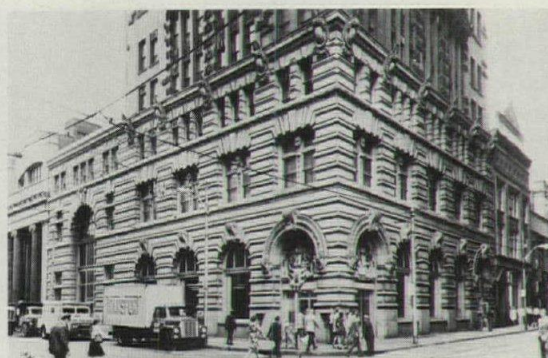
Now all of this is gone. In its place is a glass box designed by Gruzen & Partners with Der Scutt as consulting architect. Developer Donald Trump said (in *The New York Times*, March 28, 1976) that a new façade was needed "to broadcast the newness of the project." Inside, the huge lobby has been made even bigger and slathered in marble and shiny metals and other "opulent" materials for that costly modern look now favored in the "better places." At least, though, one sort of expected the ballroom—the best part—to be retained. A 1978 press release says its spaces "will be restored to retain their traditional ballroom flavor." The opening night press release said "Hyatt is restoring, in all its decorative detail, the handsome ballroom of its fabled predecessor..." From this you gather the ballroom was restored? Wrong. It's slathered up just like the rest. Little of what was there before, or even much hint of it, remains. The old Commodore is irrevocably lost. The good part about ascending the scale of the related examples of this issue is that little of the original architecture is irrevocably lost. [David Morton]

# Generation gap

Five commercial buildings from the turn of the century became Pittsburgh's first specialty mall, but the result is an anarchy of styles and materials.

Details of original buildings: 1 Peoples Bank, 2 its inlaid marble staircase, 3 the second-floor interior of Colonial Trust as a bank, and 4 its corner stair.

Facing page: The largest and most elaborate building, Colonial Trust, houses most of the new shopping mall. Its Portmanesque glass-edged elevator can be seen at left.



Toby Seger

This is a place where copper awnings are popular, where acoustic ceilings with metal strips seem necessary, where neon and banners are *de rigueur*. Recollections of small town main streets are popular here too, as is smoke mirror, diagonal redwood boarding, rope plant hangers, Mexican tile, woven cork, and travertine wallpaper.

Of the five buildings in which all this sits, the largest is a T-shaped Classical Revival bank built by Colonial Trust in 1902 (with a 1925 addition). The walls of what at the time was the longest open bank lobby in the world are lined in Italian marble. The ceiling is a series of stained-glass skylights in gilt framing. The upper walls are a Roman theatrical backdrop of pilaster orders and blind arches.

The creators of The Bank Center did not so much take things out as design without noticing what was there. The Trust building, for instance, has façades with lion-head keystones, giant columns, and carved stone shields. The 1901 People's Bank has an exterior of deeply carved rustication. But at the doorways of the Trust and along the walls of the bank tower are the cheerful patterned canvas canopies invented in California to brighten the appearance of rescued brick warehouses.

Inside, a small swatch of the original white mosaic floor appears momentarily before being overtaken by the kind of patterned carpet generally found in hotel chain lobbies. This occurs so close to the door that it leaves the marble double columns in a kind of visual limbo, belonging to the entryway but prisoners of the carpet. Wooden street furniture is set next to swirling marble staircases, steak-and-ale Tiffany beneath the original stained-glass skylights, fluorescent tube systems in front of Ionic columns.

Wedged into a marble doorframe is a directory with the typefaces and backlit colors of a pinball machine. Pasted onto a marble wall is a small-paned bay window with brick dado for display. And a huge black and white awning is hung off another marble wall to form a figurine shop. An old vault is now a jewelry boutique, but aside from the door, assumes the form of an adobe pueblo. The Classical order on the walls has been underscored with rust-colored accents against beige. And there is a Portmanesque glass-edged elevator in the same palette.

The old board room, with its original private elevator, is now a restaurant. There are several other restaurants, about 25 shops, a disco, and three movie houses. The galleria



occupies four of the five buildings. The fifth, Peoples Bank, is a 16-story office tower.

#### No one's maniacal plan

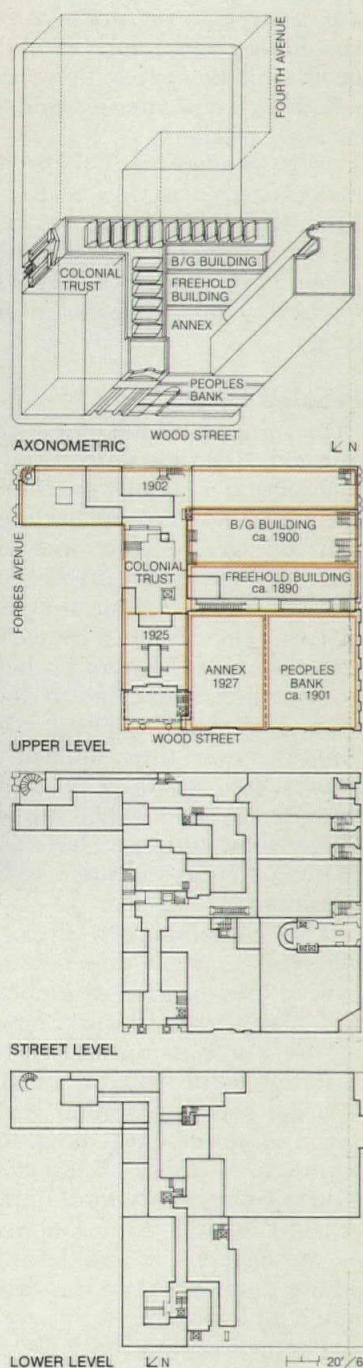
The Bank Center was not the maniacal plan of any one architect. Economic factors encouraged the splintering of decisions, and ultimately the design wound up in the hands of those most used to forming and catering to popular taste, of which it is an encyclopedic example.

The project began in 1973 when two planners with the city—James Morgan, an architect, and Henry Stewart III, a finance specialist—tried to interest Frank M. Van Ameringen, a lawyer, coal and gas dealer, and self-styled “huckster,” in buying the buildings. All but one had been owned by a bank that had moved to new headquarters. The young men thought the vacant buildings would make a fine Ghirardelli Square. Van

Ameringen liked Underground Atlanta. He hired them and financed the deal. They first hired Graham Gund of Boston to make conceptual drawings to help get financing. Then they switched to a local firm, IKM Partnership, for easier logistics. At the time, a young Argentinian, Rodolfo Machado, was working for them; his design (with partner-in-charge Mihai Marcu), with its waterfall, central pond, and small-town stage set, was published in *P/A* (July 1974, p. 76). Machado left in August 1974, and the design, says Marcu, was “humored a little” at the request of Morgan who was anxious about, among other things, its allocation of square footage.

Morgan’s design vision was also quite different. The IKM design called for each new element “to be transparent or reflective, without a solidity of its own competing with the original building,” describes Marcu. Morgan, on the other hand, wanted “to hold onto the level of detail of the original . . . to blur the distinction between old and new.”

Meanwhile, however, the depressed economy was more than Van Ameringen wished to withstand alone. In mid-1975, Edward



## The Bank Center, Pittsburgh

Ryan, founder of Ryan Homes, became half owner and later he brought in Joseph Hardy, a lumber store owner. They turned the project over to Lorenzi, Dodds & Gunnill, an A/E firm that had moved into the bank tower a month before.

Architectural decisions were more and more fragmented as the project began construction. Morgan was now a consultant. First William Zinner and then Richard Myers were in-house architectural staff. And Ryan brought in William Seach, a home builder, to administer the project as a general partner. In addition to the number of decision-makers on the public spaces, there was less and less talk of enforcing design guidelines for the individual retailers.

In November of 1976, the center opened at half capacity. In May 1978, a full-time manager, Robert Hustwit, was brought in. The center is now full and is expected to show a profit next year, although tax breaks have made it a good investment from the beginning.

### People's choice

"The thing that's missing in the design," says Morgan, "is a clear vision. You have to control it all or you just don't get there." But without the clear hand of an architect, the "there" you do get is not without interest. In this Diamond-Jim-meets-Son-of-Chocolate-Factory confrontation, there are the dreams of two generations. The earlier one, of accomplishing in America what had been impossible in Europe, had to do with belonging to an aristocracy. These were pretentious buildings even then, built in an age more of money than splendor, more of expectations than sensibilities. Their appeal today is no longer their optimism, but the sheer opulence of the materials and worn serviceability of the vocabulary.

The contemporary dreams still include elements that are direct descendents of the earlier dream, such as embossed wallpaper. But many images have a new theme. One is of the woodsman/peasant whose unfinished materials come from the earth, as if free from a larger society. Another is the rock star or space explorer, each a glittering loner for whom such things as family connections or cultivated manners would appear irrelevant. A third is small-town America, remembered as an egalitarian and less ambitious track where those less than stars are still known by name and considered of worth.

The new dreams not only erase class structure, they erase bureaucracy, corporations, and urban living. These are dreams of starting over but not, as in the 1920s, of creating a new social structure. These are transient dreams for people to escape into. There is no interest here in history, neither in tradition nor revolution. Not surprisingly, the architectural attitude is the same. Neither maintaining nor destroying, each store, each element starts over as if nothing else, old or new, were there. [Nory Miller]

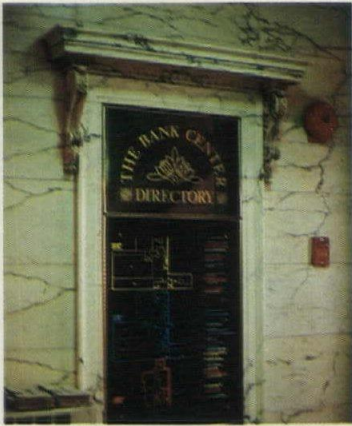


Toby Seger

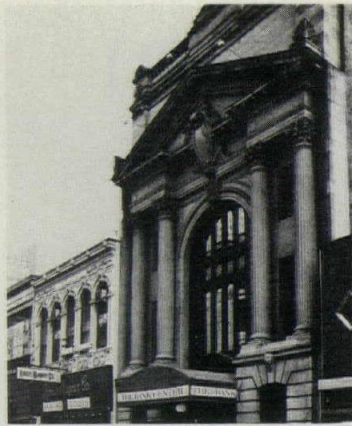
1 The new grand staircase, Portmanesque elevator and mid-level cafe; 2 Freehold façade altered for Rusty Scupper restaurant; 3 A new directory in an old doorway; 4 Colonial Trust's Forbes St. entrance with new canopy; 5 More canopies along Peoples Bank façade; 6 Movie kiosk; 7 Marble meets gypsum board in foyer; 8 A billowing awning hangs off a solid marble wall to form a figurine shop; 9 A "Main Street" display window off another marble wall; 10 Sweeping marble staircase adorned with supergraphic banner from above and glass display case at its side.



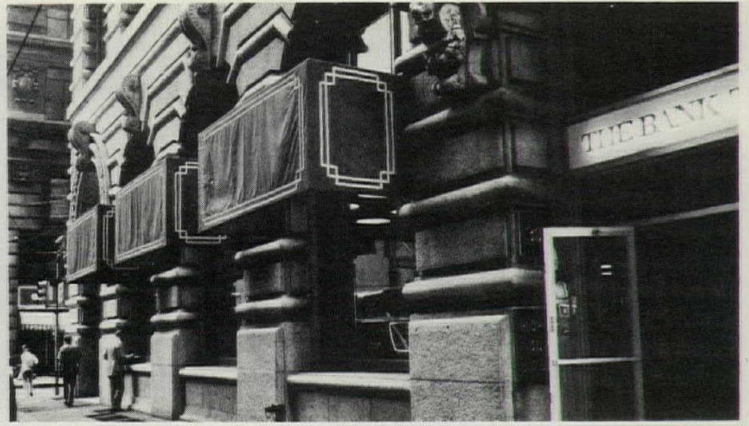
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#### Data

Project: *The Bank Center, Pittsburgh.*

Architects: *Lorenzi, Dodds & Gunnill, Pittsburgh, architects of record. IKM Partnership, Pittsburgh, preliminary design. Graham Gund, schematic design. Original architects: Peoples Savings Bank Bldg., Alden & Harlow, 1901; Peoples Annex Building, Press Dowler, 1927; Colonial Trust extension, F.J. Osterling, 1925.*

Program: *create a downtown shopping, theater, restaurant and office complex within five Classic Revival buildings (dating from 1890 through the 1920s), with a combined total of 220,000 gross sq ft. The office tower has 16 stories of which 15 are used.*

Structural system: *addition of new steel framing, masonry walls, and composite concrete floors.*

Mechanical system: *new air conditioning and plumbing throughout, including sprinklers.* Consultants: *R.M. Phillips, structural; Emgee Engineering, mechanical; Caplan Engineering, electrical.*

Contractor: *Mosites Construction.*

Cost: *\$4.2 million, excluding fees and tenant furnishings.*

# Richardson on the half shell

**A recent renovation raises questions about the split in architectural attitudes represented by the exterior and the interior design.**

There are instances of renovation when the preserved shell and its reconstituted innards diverge so drastically from each other that one wonders what kind of dish the owners and their architects thought they were serving up. In the case of The Richardson, it should be pointed out, architects Stecker/LaBau did not have much of the original interior ingredients to work with. The H.H. Richardson-designed Cheney block, built in 1875-76, had been subjected to evisceration several times over when the building served as warehouse space and

offices with ground-floor shops for G. Fox & Co., the department store. Prior to that it functioned as the Brown-Thomson department store.

In fact the architects of the present conversion have returned the building to the mixed uses of Richardson's original program, with stores at the base and apartments above. (The Cheney block also contained offices, omitted in this case.)

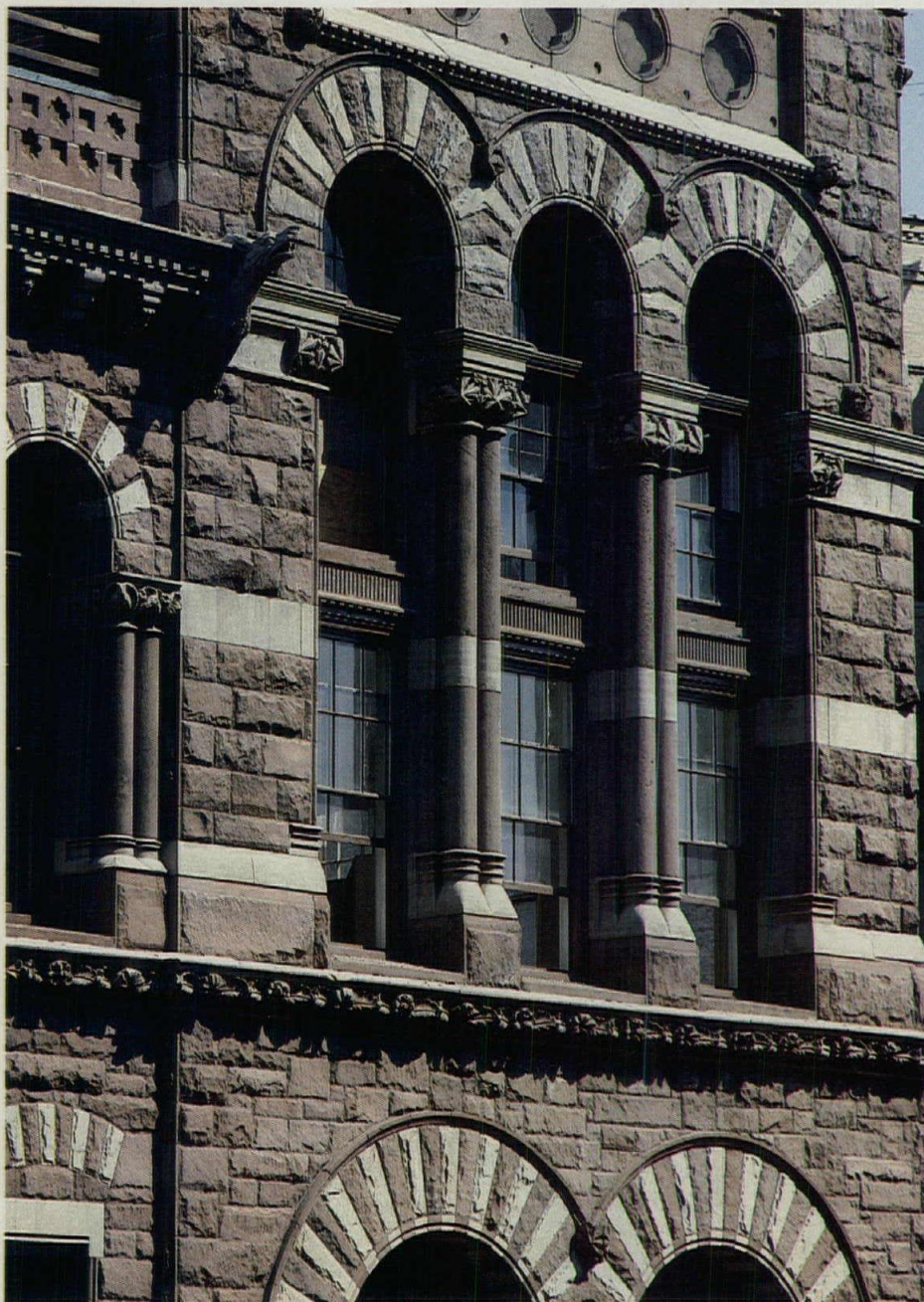
The only trouble is that now the outside is monumental, massive, rich, ornate—beautiful. And inside it is the bland commercial design of the kind found in small airports and suburban shopping centers. The shock that accompanies the transition of moving from the outside to the inside puts into high relief the confusion prevailing in renovation work today. Both developers and architects now see the value of saving and restoring older architecture. Yet they can insert newly designed spaces within old shells where one has nothing whatsoever to do with the other—spatially, formally, even decoratively. One taste kills the essence of the other.

Oddly enough, here the developers are very “enlightened.” Both Stanley Schultz and James Barbour have architectural degrees. Schultz, in fact, led a downtown business group in preserving Hartford's major landmark buildings.

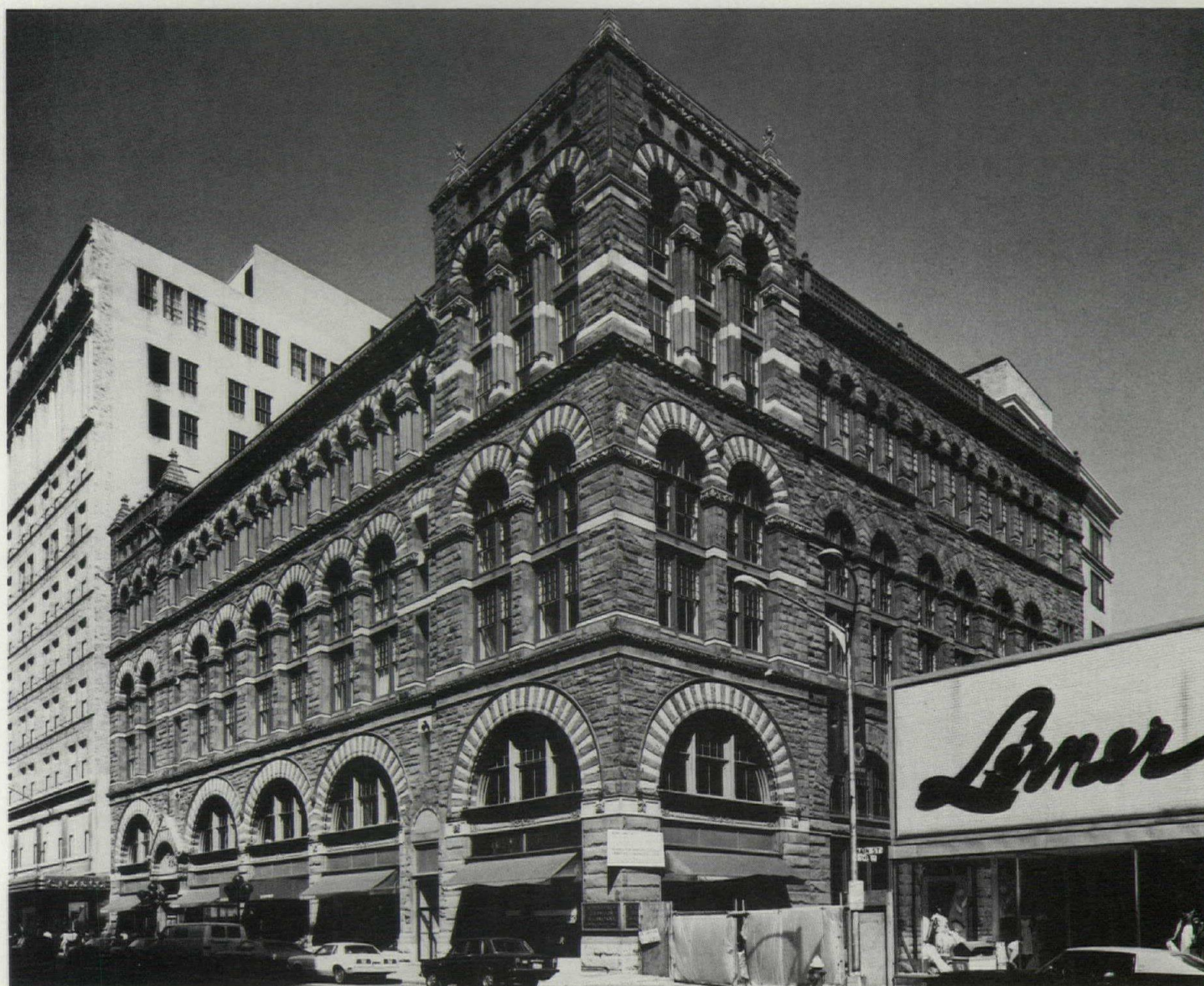
The city of Hartford itself has been quite interested in the preservation of the Cheney block, put on the National Register in 1970. The city, given the building by G. Fox & Co. in 1977, leased it to developers Schultz and Barbour with attractive incentives built in: in lieu of rent, the city will receive a percentage of the annual profits, 10 percent initially and more as the project gets on its feet. It has also given the developers a ten-year graduated tax deferral on the full assessment of property improvements.

## **One man's meat**

In renovating one of H.H. Richardson's most significant buildings, Stecker/LaBau has done no worse than dozens of their colleagues around the country. Although only two façades are actually visible (the north wall abuts the Fox department store), it was a formidable commission. Henry-Russell Hitchcock called the building in 1936 “one of the very finest buildings in the world dating from



The Brown-Thomson building was built by the Cheney Brothers as a residential, office and retail block. For the commission, Richardson decided on brownstone ashlar construction, with sandstone trim for the voussoirs of the arches. He also designed the seven-story building to read as three stories through compositional and scaling devices. Before this renovation, one of the two porches to the main entrances had disappeared, along with the steep pyramidal roof of the south tower. The interior had been renovated several times, and Richardson's interior atrium dismantled.



The interior of the space has little to do architecturally with the exterior. The use of "modern-natural" details and finishes inside loosely recalls the renovation of Boston's Institute of Contemporary Art, which has a Richardsonian exterior (P/A, Nov. 1976, p. 54). Unlike ICA, however, this interior fails to come together in a coherent spatial whole in which new and old elements are effectively juxtaposed.



the mid-seventies." Its dependence on brownstone represented a departure for Richardson, who had previously employed granite for the monumental buildings. As has been pointed out by the Hartford Architecture Conservancy, the choice of brownstone followed the example of Ithiel Town's Christ Church of 1828, across the street, albeit with an ashlar treatment instead of an irregular dressing. Not only innovative, Richardson was contextual; he thought of the building in relation to its existing surroundings.

#### Today's market

In renovating the building for present-day marketing strategies, the architects had to solve complicated and potentially costly problems. They had to forge 85,000 sq ft of leasable space for a "tri-level" shopping mall that would accommodate 60 stores. Not only did the top of the Cheney block have to be converted to market rental apartments, but another building was involved. A buff brick eight-story warehouse, which had been moved to the rear of the site in 1938, would be joined to the buildings.

The Richardson's three retail floors also feed directly off the Fox department store located on the north side. Then these public access levels connect to a just completed "mixmaster" on the other side—a pedestrian node connecting to a second-level skywalk system. Intended to eventually tie into Constitution Plaza, the walkway may even bridge Main Street, a move that could block some of the oblique views of the Richardson building from the north.

#### The innards

In terms of the gut-and-paste job going on inside the two buildings, a homogeneity has been attained. There is very little difference between the loft-type apartments in the ordinary brick warehouse and those in the Richardson building. The ceilings are 15 ft high in the Cheney block portion; 14 ft-6 in. in the warehouse. Windows in the warehouse are 12' x 13'; in the Cheney portion, they extend floor to ceiling. While the Cheney block offers some stunning views out through the tops of arches, no wainscoting or other interior Richardsonian traces remain to taunt prospective tenants of the warehouse section.

The apartments generally conform to run-of-the-mill solutions for loft space renovated into apartments. A sleeping balcony, kitchen, bath, and closets usually compose a self-contained unit that juts out into the high narrow spaces. The interior finishes in the apartments range from modest (vinyl baseboards) to simulated luxurious, such as the synthetic pile rug that crawls everywhere. It even covers up the wood floors in the Cheney portion for acoustical reasons.

The real letdown comes with the public spaces. Apartment corridors, lit by luminous fluorescent fixtures mounted on the walls, with ordinary acoustical-tile-and-aluminum-spline dropped ceilings, "perky" orange and "soothing" beige colored vinyl walls and patterned carpeting, fail to refer, evoke, or reveal anything that might belong to the older

buildings—whether they be the Cheney block or the industrial vernacular warehouse.

The tri-level shopping mall of stores on the order of Radio Shack, Florsheim Shoes, and Hickory Farms continues this aesthetic, with acoustical tile ceilings, flush fluorescent fixtures, and red carpeting. The mall is occasionally dressed up with materials of the "modern natural" vein: mirror and oak trim above storefronts, parquet flooring, oak capping on the metal banisters. Even the open-riser stairs are carpeted on both sides of the treads! The 45-ft-high atrium spaces for the two stairwells terminate in mirrors pasted on the ceilings where skylights would normally alleviate the closeted bargain-basement feeling of the 12-ft-high and 12-ft-wide corridors alongside the shops.

The architects functioned as problem solvers. With a tight budget for the \$9.2 million renovation, they linked two buildings, wedging a number of new apartments into these odd shapes and avoiding a surfeit of left-over unrentable spaces.

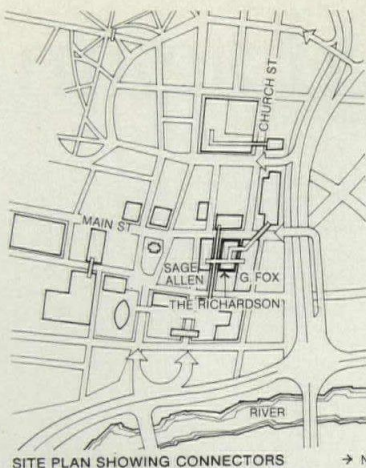
When, however, some architects argue that architecture has to be more than problem solving to be "meaningful," they must have situations like these in mind. Expectations are raised by entering The Richardson. Even the name carries a promise of "architecture."

Much of the spirit of the older architecture has been dissolved by the time one enters the building—whether through the Main Street entrance, or through a rear entrance where a hoked-up mural evoking Main Street Americana is tacked onto an addition to the rear.

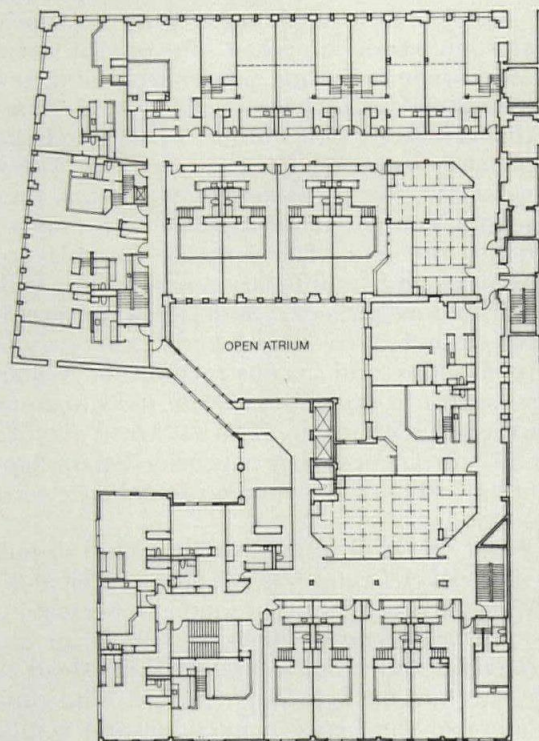
The Brown-Thomson Restaurant, occupying 9000 sq ft of a double-height space at the street corner, does try to evoke the character of the old interior, which until the 1950s contained a Richardson-designed skylit atrium, replete with ornamental ironwork. The restaurant, designed by the California firm of Callister, Payne, Bischoff with the Hartford-based firm Design Group One, loosely reconstructs these qualities by the organization of dining areas on balconies around a central open space, and by incorporating original trim and balcony railings into the whole.

While the restaurant suffers from a "theme"-like quality with too many knick-knacks and too many split levels, the results might at least induce an observer to go take another look at the outside of the building.

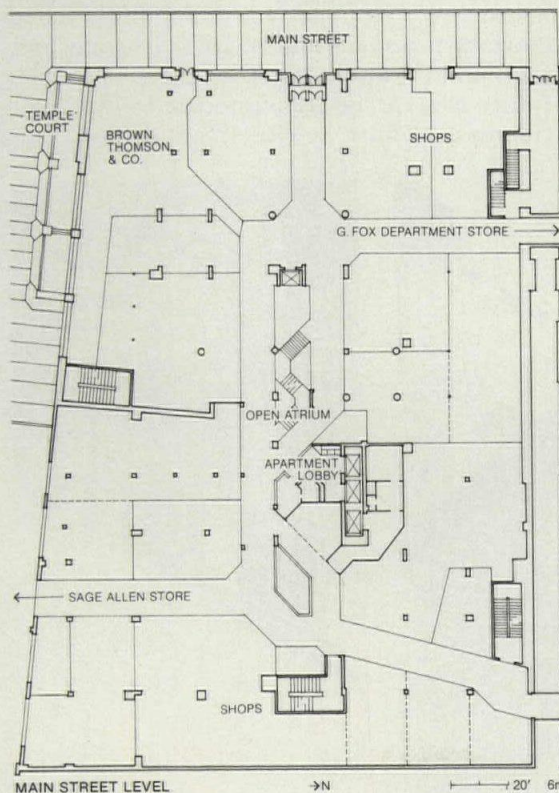
This is not to say that Stecker/LaBau should have tried to be historically allusive. But the new mall simply takes a proven formula for standardized retail space and makes that "work" in a tight space. Instead of addressing the challenge of preservation, the architects have chosen to stay within a narrow functional focus, adding cosmetic devices, such as a little oak trim here, a mirror there, for effect. If one goes to the trouble to save a good building, more homework should be done. More questions could be asked, more consultants (landmarks, architectural consultants) brought in to advise the firms. Because the architects concentrated on enclosing rentable space, they reduced the perception of Richardson's work to fragments. [Suzanne Stephens]



SITE PLAN SHOWING CONNECTORS



FIFTH FLOOR PLAN



MAIN STREET LEVEL

The mall floor area (plan, left bottom) has new construction added at the rear on which a mural has been painted. The two buildings, the Richardson-designed one facing Main Street and the warehouse behind it, have been joined for conversion to retail and residential uses (left). The buildings' mall circulation will hook in with the second-level skywalk system. The bridge directly across Main Street is in limbo; the diagonal connection to Church Street is expected to go ahead (left, top).

#### Data

Project: The Richardson, Hartford, Ct.

Renovation architects: Stecker/LaBau Architects, Inc. Hartford, Ct; Russell Stecker, Partner-in-charge; James McManus, project architect.

Original architect: H.H. Richardson (for the Cheney block portion).

Client: The Richardson Associates (Stanley Schultz and James Barbour).

Site: Main Street of downtown in existing five-story H.H. Richardson-designed building designed 1875-76, and attached nine-story 1930s warehouse.

Program: convert two buildings used most recently for department store offices and storage into a multiuse retail and residential building, with a three-level mall (85,000 sq ft) with 120 market-rental dwelling units in six floors above. The mall, containing about 60 shops and restaurants would link two large department stores, and existing and planned skywalk system.

Structural system: structural steel frame, masonry walls, brownstone cladding, limestone trim, brick and timber foundations. New construction involved metal stud walls, gypsum board. Major materials: aluminum windows and storefront, gypsum board, carpeting, glass.

Mechanical system: gas-fired 60 HP central boiler and roof-top cooling towers provide a low-temperature water loop to connect individual electric heat pumps.

Consultants: Bounds & Griffes, Engineers, structural; Burton & VanHouten, Engineers, mechanical; Ken Love, graphics.

General contractor: Bartlett-Brainard & Eacott.

Mechanical contractor: The Wetherell Corp.

Cost: \$9.2 million.

Photography: Tom Cramer.

# Foiled again

**Walker/Group's renovation and restoration of a McKim, Mead & White banking space has become controversial for its attempt to meld old architecture with new.**

*The granite block structure of Neo-Classical style was designed in 1842 by Isaiah Rogers. In 1907, McKim, Mead & White renovated and expanded it for National City Bank, adding four floors plus a second-tier colonnade. In this renovation, Walker/Group did patchwork on the outside—for example, returning the cornice work—and added the Citibank signage.*

*The dome, glassed in by McKim, Mead & White, had already been filled in before the current renovation. It is newly painted in 24-karat gold leaf (opposite). The Walker/Group refurbished the older architecture and developed a consistent lighting scheme for all the arches.*

Dramatically juxtaposing new design with older architecture still holds immense appeal as a renovation approach. The establishment of a dynamic tension between old and new was, of course, early espoused by Modern architects. Faced with adding or inserting light, planar, abstracted elements onto or within older, massive, ornamented structures, they sought a subtle and complex interaction between the two. The intricate interplay of Modern and traditional architectural vocabularies was probably most elegantly exemplified by Franco Albini's and Carlo Scarpa's renovations and reconstructions of Italian museums in the 1950s. While the situations were not identical to 55 Wall Street, Albini's and Scarpa's approaches provide a paradigm of how old and new modes can enhance each other.

But this kind of interaction is hard to pull off. Walker/Group was not able to do it at 55 Wall Street. Their intentions of creating modern banking facilities as a "foil" for the splendid and monumental McKim, Mead & White interior are commendable. The considerable gap between intention and result, however, is as intriguing as it should be instructive. As the preservation-recycling movement becomes more architecturally and economically appealing, the manner in which future uses can be accommodated within past frameworks must be closely scrutinized.

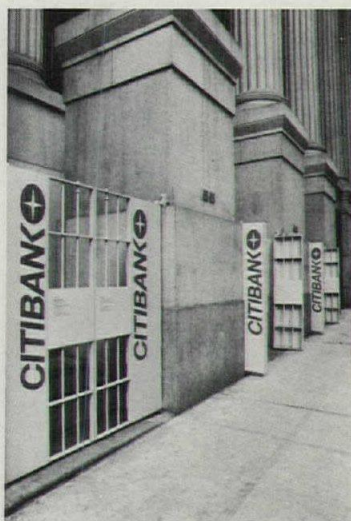
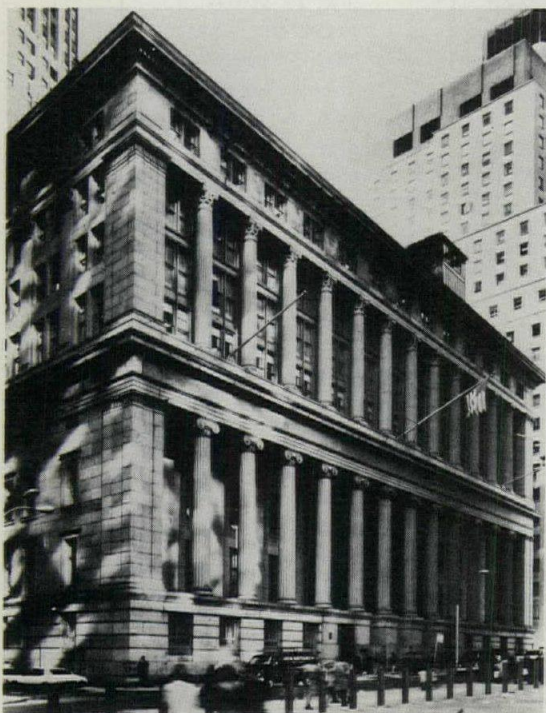
## Renewals

This renovation is not the first for Citibank in this space. The building, designed by Isaiah Rogers in 1842, received a major remodeling in 1907 when National City Bank (now Citibank) took it over from the Customs Service, which in turn had altered it after its previous use as the Second Merchant's Exchange.

When McKim, Mead & White transformed the bank for National City, they added four floors to the original building. The existing Rogers-designed dome was replaced by a shallower one with skylights, since it would now form the base of an air shaft. Because the bank wanted a larger ceremonial space on the main floor, McKim, Mead & White removed the entire interior, leaving only the four exterior walls, and installed a highly visible vault in the central space, surrounded by a marble screen and bronze tellers' booths. Over the years, alterations were made, including lowering the vault to the basement and installing an elaborate wood balcony. But the most drastic change came in the 1950s. The main space was turned over to corporate transactions, with the branch bank moved to the basement. Tellers' cages were scrapped, replaced by desks, a new balcony and new chandeliers were added, all in the safe "traditional" style.

In 1979, when Citibank decided to return the main banking space to public use by making it the locus of branch bank activities, it weighed several different approaches to its 1980 remodeling. After heavy deliberation by management, the bank decided to go with the Walker/Group's more "futuristic" proposal as being appropriate to the new bank technology. For a branch bank, this one is a special job. It contains the first major installation of Citibank's Universal Teller Service, a computerized system that allows the customer to conduct more transactions than ever with one teller. Walker/Group's scheme would give these functions, as Kenneth Walker put it, "a life of their own."

Many of the banking operations are in effect merchandising advances. Walker/Group was able to bring their own merchandising knowledge with department store design to this area, and they obviously studied modern banking techniques to see how they might be incorporated into the traditional space.

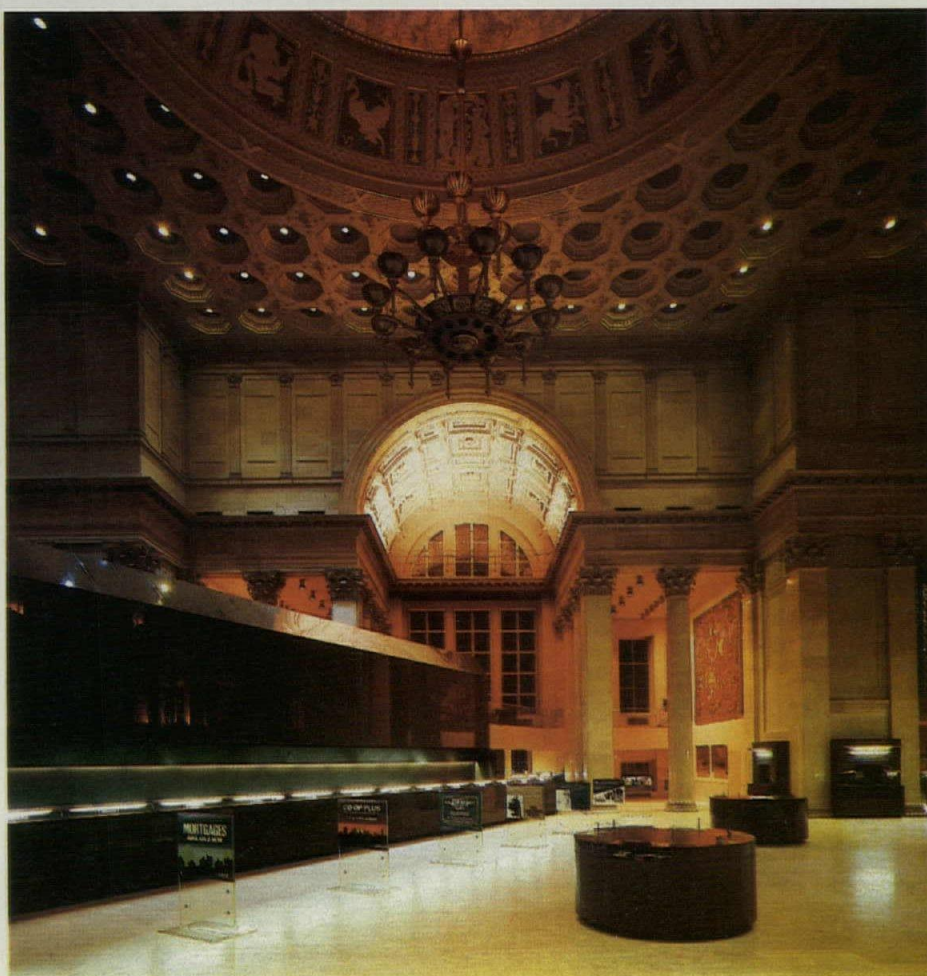




### Diagonal again

Since two points of entry to the space are located diagonally across the room from each other (one actually being a heavily trafficked back door), Walker/Group used this diagonal as the point of departure. The diagonal not only marks the line of traffic across the space, but it defines the queuing pattern for the bank customers and establishes the pattern for the organization of other banking spaces. Private banking, Wall Street banking, and agribusiness banking are placed on diagonally demarcated carpeted areas flanking the central space and on a mezzanine level jutting into the end of the diagonal, 20-ft-high wall that functions as the tellers' counter. In the central space, two automatic deposit and banking stations plus circular service desks complete the ensemble of specially designed elements.

The removal of the escalator at the entrance, which was installed during the 1950s remodeling, and the inclusion of a new escalator at the rear of the central space does free the area for bank functions. It should be



added also that the space now opened up plus the installation of the tellers' wall make the uses of those spaces legible. People arriving at the main entrance can easily tell where they are meant to go for general banking functions. The location of the more specialized services, however, is more difficult to decipher.

The reflectivity, sleek lines, and zappy angles of these assorted opaque objects lend a certain sophistication to the everyday actions of banking. They also provide possibilities for impressive photographs in which the older architecture is reflected in the slanted, shiny brown surfaces. But experiencing the actual objects in place leads inevitably to Ada Louise Huxtable's assessment, published in the *New York Times*, that the design is "disruptive" to the architecture. This is an impression no amount of wishing on the part of the client or the architect can erase.

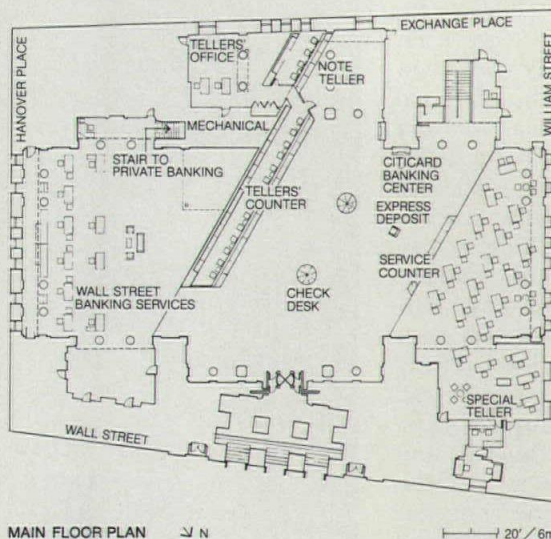
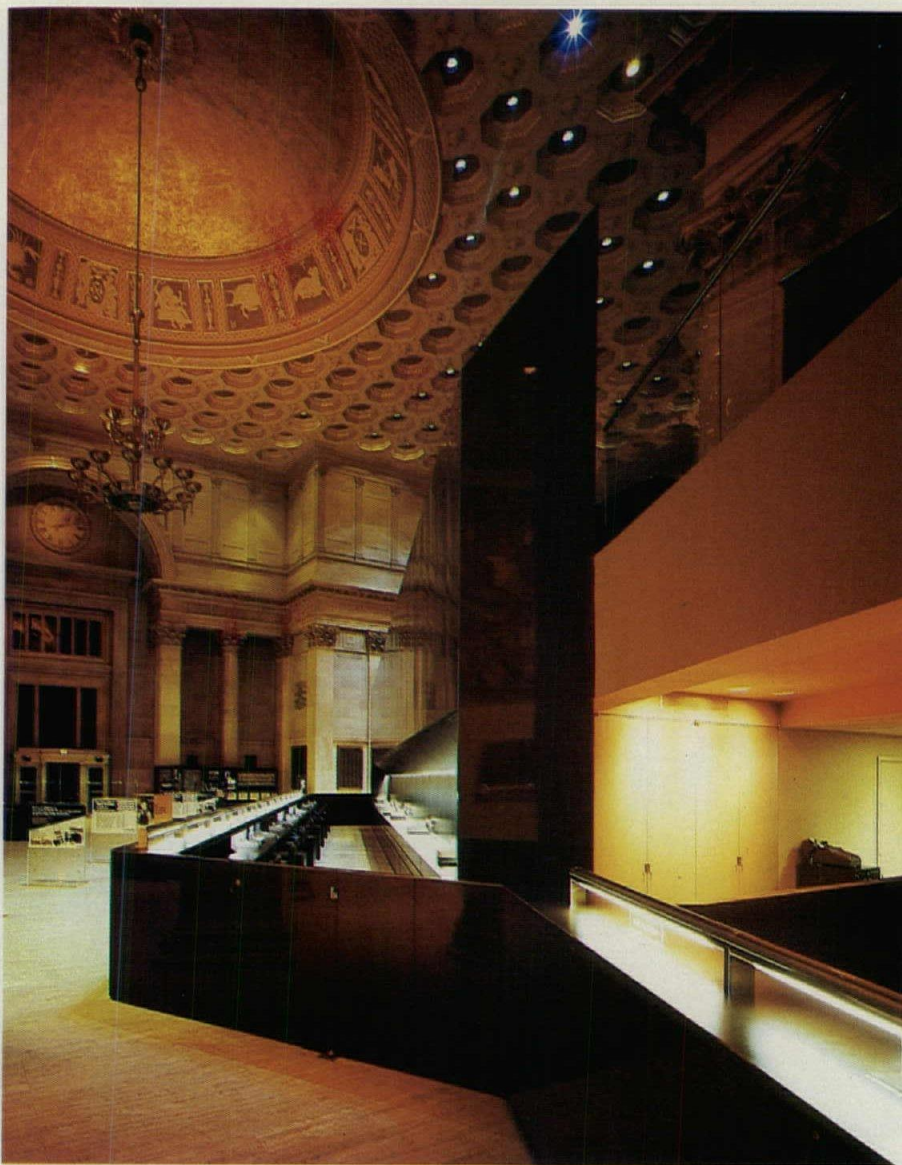
### Levels of disruption

The effect fails to come together on several levels. First in terms of a "life of its own," these packaged shapes of minimal sculpture seem related only by virtue of their simple geometries and immaculate surfaces. As a grouping, however, the round desks and rectangular banking stations become oddments scattered between the diagonals, mute and unconnected.

The presence of the tellers' counter dominates. A 20-ft-high, 75-ft-long prowlike structure may not sound large in relation to the 72-ft-high dome or the room's 188' x 127' dimensions. Yet the scale of the wall, measured by human standards—on foot, from the ground—looms large, like the two-story building it is equivalent to.

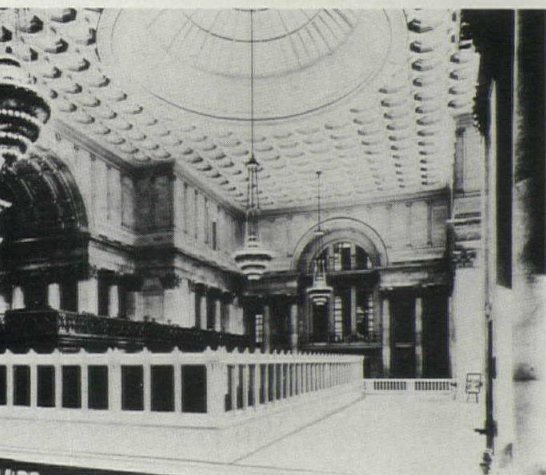
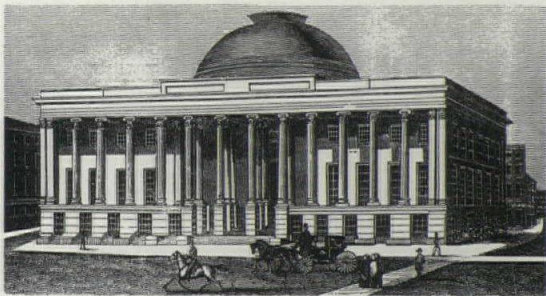
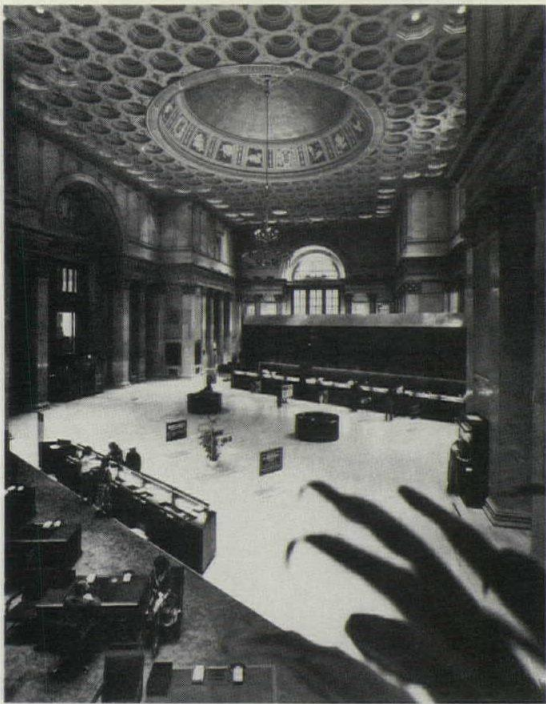
Its opacity, in spite of the reflectivity of the surface, makes it even larger. Walker/Group had initially proposed a clear, reflective glass structure, 40 ft high, to contain the wiring of the computers, air conditioning, etc. While reflective glass may have dematerialized the mass more than brown plastic laminate surfaces, it still would have looked like a building within a building, especially at 40 ft.

The problem goes beyond the configuration of the new designed elements, their opacity, and the height of the wall. It goes right to the spatial pattern of the diagonally aligned spaces overlaid on the orthogonal plan. The strong diagonals, even if not consistently maintained in the furniture arrangement, effectively destroy the experience of the symmetrical, classical space. Axiality and centrality, two qualities of Renaissance space, are now apprehended only by looking up at the ceiling, at the flanking arches, and at the vertical thrust of the centered dome. But while the ceiling is doing one thing, the floor and the peripatetic observer are doing another.



An exhibition mounted by the New York Historical Society showed early photographs of the main room, such as the original McKim, Mead & White interior (right, middle), and the 1950s remodeling (right, bottom). The exhibition, curated by Mary Black and Elliot Willensky, was unusual in its coverage of the building's history.

Faced with the changes wrought by the 1950s remodeling of the space, the Walker/Group removed the marble balustrade demarcating the central area and two 8-in.-high platforms flanking the central space so that the column bases could again be revealed. They also removed the escalator near the entry, placed an escalator off to the rear, and removed portions of the balcony for their 20-ft-high tellers' counter.



A diagonal entrance to a classically oriented space can deepen the sense of approach: witness Choisy's point about approaching classical Greek buildings on the oblique and Philip Johnson consciously recalling this tactic in his Glass House. Diagonal paths cutting across orthogonal grids, too, ease circulation without destroying the character of the space. But the diagonal has to be used carefully, expeditiously, more discreetly than at 55 Wall, to allow the space to maintain its coherence as a three-dimensional entity.

As if to compensate for destroying the experience of Classical space, Walker/Group has lit up the vaults to a fare-thee-well. (The yellow and blue lighting in the coffered ceiling was already there—a given.) But calling attention to the vaults, while valid, strikes a strained note, as if they had to compete for their particular architectonic status.

In the larger scheme of things, Walker/Group could have done far worse, like install chrome and glass elevators in the central space.

The bank ought to be congratulated for not going to an office supply house, and for taking such a keen interest in bringing to public view an important work of McKim, Mead & White, designated a National and City landmark in 1965. It is a step in the right direction for fostering institutional concern about architecture and design.

The reuse work here is at least reversible, meaning that it could be turned over to other uses without any major changes except the removal of the "furniture." In this respect, William Shopsin, the landmarks consultant for the exterior, points out that it is clearly a piece of furniture, and there is no ambiguity about what belongs to McKim, Mead & White and what belongs to Walker. By removing the 1950s "improvements" and restoring the 1907 work, Shopsin continues, the architects have depicted the space more clearly. The argument makes good sense except for one effect. While the apples can be distinguished from the oranges, the fruit bowl—as an aesthetic entity—does not cohere.

#### Dissonant results

Dissonance, characteristic of Modern art, has been consciously introduced. But here dissonance forces a perceptual rupture: The new objects read as obstacles to perceiving and fully appreciating the older architecture.

As an approach, dissonance between new and old architecture still refers to that from which it departs. It cannot necessarily be achieved by resorting to the currently fashionable affinity for highly reflective surfaces or diagonal configurations. This observation doesn't mean that architects must forsake that which they consider Modern for more historical motifs. But an Albin or Scarpa knew there were rules; the modern transparency of plane (achieved with clear glass) or the dependence on minimal line (achieved with elegantly minimal metal supports) provided dissonance without obstruction. Their designs did create a "foil." [Suzanne Stephens]

#### Data

Project: 55 Wall St., New York.  
Architects: Walker/Group, Inc., New York. Mark Kates, project partner; John Immitt, project director; Joe De Pace, job captain; John Beringer, Lauder Bowden, Gary Jacquemin, Frank Koester, Bob Turner, design team.

Original architects: Isaiah Rogers, 1842; McKim, Mead & White, addition and interior, 1907.

Program: reestablish Citibank's retail banking on the main level of building, 22,000 sq ft, with tellers' counter and queueing area, service counter, and officers' platform, investment banking platform, tellers' offices. Relate circulation to entrances from Exchange Place and to the main Wall St. entrance. Develop lighting system for architectural features, local task lighting and exterior identification lighting, plus interior/exterior signage. Refurbish furniture.

Structure: existing steel frame with reinforced concrete slab.

New: tellers' counter wall of steel frame with wood truss vertically positioned.

Major materials: marble, linoleum, nylon carpet, polyester and plastic laminate finishes, wood, acrylic, glass.

Consultants: Goldman, Sokolow, Copeland, mechanical/electrical; Gleit Olenek & Associates, structural; Bonvini/Kondos, lighting; William C. Shopsin, landmarks; Federman Construction Consultants, cost.

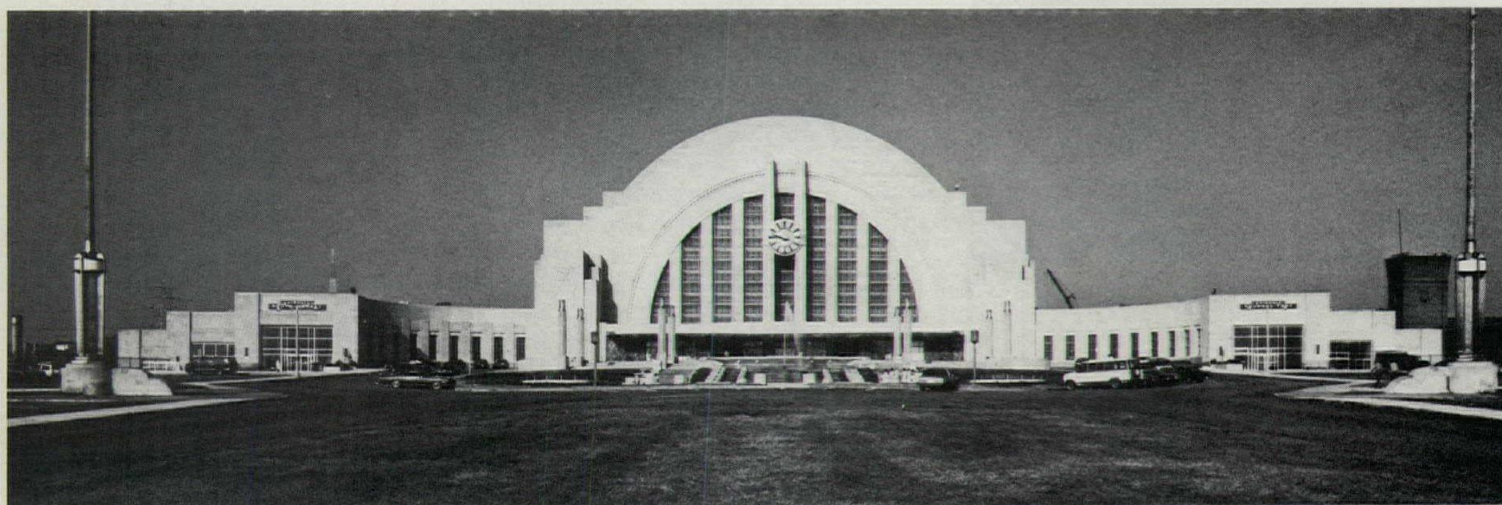
General contractor: A-J Contracting Co.

Client: Citibank; Pam Flaherty, Mary Lamb, Richard Eiter, Peter Magistro, Harold Reynolds, Rudy Pavesi.

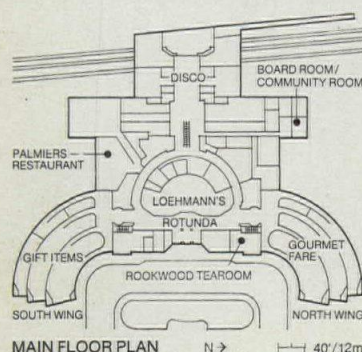
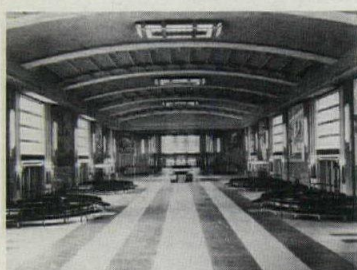
Costs: \$1.5 million not including furnishings, graphics, or fees.

Photography: Mark Ross.

# Cash on the line



**An outstanding synthesis of 1930s decorative arts and architecture, the railroad station in Cincinnati has been saved by recycling as a mixed-use complex with generally mixed results.**



Few buildings demonstrate quite as vividly as the Cincinnati Union Terminal the peculiar blend of streamline and monumental architecture that arose in the U.S. in the 1930s. Called Architecture Moderne by art historians, its close links to the Parisian-based Art Deco movement can be strongly detected in its interior finishes. Paul Cret, the Beaux Arts-trained architect, acted as architectural advisor to the New York firm of Fellheimer & Wagner for the design of this building that proved to be the last of the major symbolic artifacts of its type. More perfectly than its predecessors, it embodied the promise of high-speed transport in its extravagant imagery. Yet the building was obsolete by the 1960s. Slated for demolition by the railroads in 1972, only the unceasing efforts of preservationists, architects, and interested citizens kept the building intact. As it was, in 1972 the 450-ft-long grand arrival and departure concourse at the rear of the Rotunda was sliced off and demolished for a rail alignment that has never materialized. Service was shut down, and a small station was built elsewhere. By 1973, however, the building, only 40 years old, had been put on the National Register of Historic Places. Efforts by New York architects Hardy Holzman Pfeiffer Associates focused attention on how the station could be adapted for reuse. HHPA's proposal for an arts school and transit offices, however, didn't assuage economic qualms, and even three years ago (P/A, Nov. 1977, p. 57), the building's fate was still up in the air. Then last

August, the Union Terminal opened with a new use—a shopping mall.

The ring of the cash register and munching of nuts by visitors browsing through soap and souvenirs create an aesthetic as perceptually "of a piece" as the painted rainbow arcs of the quarter-spherical Rotunda by Winold Reiss or the cut lacquered wood and linoleum murals of Pierre Bourdelle. In one sense, the bustling carnival aspects of the shopping mall do not diverge too drastically from the level of activity and movement that formed the railroad station's original content. It is *not* like opening a mall in the Morgan Library. Yet the nature of shopping malls today, which derives from a certain attitude about packaging and merchandising, does seriously threaten the appreciation of any kind of architecture. Not surprisingly, this observation holds true not only for recycled vernacular buildings once used for work-oriented tasks, but for the grander, monumental and symbolic artifacts denoting more ceremonial uses, such as Union Terminal.

Much of the decorative art and architecture has been nicely refurbished. Much of the mall design is virtually portable and can be removed without any harm having been done to the architecture. Yet those elements still have to be "tuned out" for one to perceive and enjoy the older shell as a coherent whole. Needless to say, the missed opportunities for new design elements to support and enhance the old are rampant.

In transforming the terminal from a railroad station to a mixed-use complex of shops, restaurants, and offices, the developer, the Joseph Skilken Organization, must be given its due for taking the risk. It was aided, of

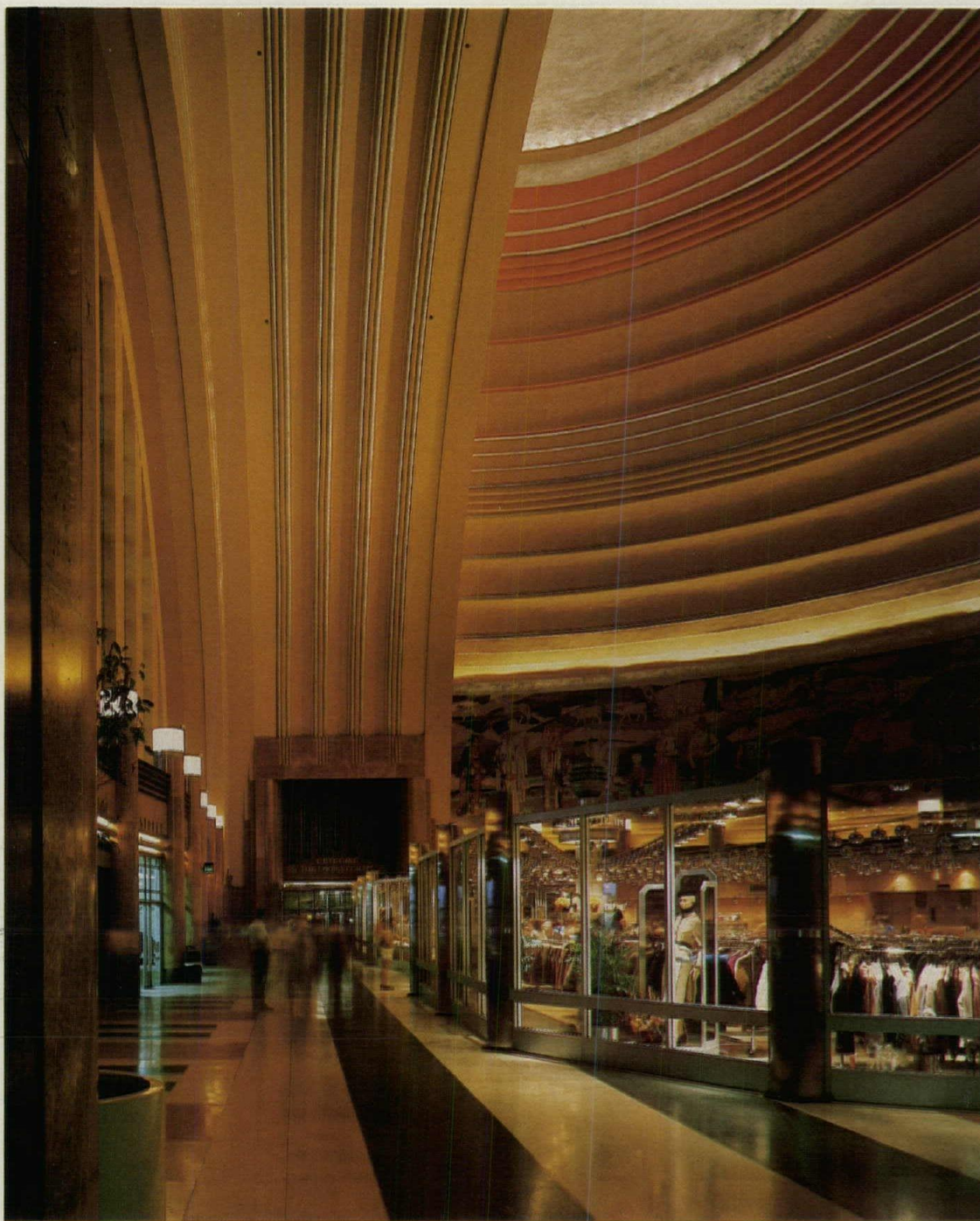
As extensive research by art historian Frances Crotty and others at the University of Cincinnati reveals, the design and construction of Union Terminal was a monumental undertaking. The structure, costing \$8.6 million, was designed by Fellheimer & Wagner, with Paul Cret as architectural advisor. Cret, the famous Philadelphia Beaux Arts architect, who was Louis Kahn's teacher, is thought now to have had much input into the design. Cincinnati art historian Denny Carter has pointed to his competition entry project for the 1933 Century of Progress Chrysler Exhibit as showing a strong affinity to the Terminal. Cret's bridges, built in the early 1930s, and his executed scheme for the Hall of Science at Century of Progress, and especially his railway car designs (Pencil Points, Oct. 1938, pp. 608-638), support the thesis. Winold Reiss, schooled in the German Arts and Crafts tradition, executed the famous mosaic murals in the Rotunda (right) and in the rear concourse (opposite, left bottom). The 450-ft-long rear concourse was torn down in 1972, and 14 of Reiss's murals were mounted at the airport.

French artist Pierre Bourdelle's contribution to the decorative arts of the terminal was significant. Bourdelle's murals in the lunchroom, now Palmiers restaurant (below), the ceiling in the restaurant, and the hall leading to it, plus his murals for the restrooms, are exemplary of Art Deco design.



course, in the \$20-million renovation by incentives from the city and federal governments. The company received \$1.75 million in federal grants (UDAG), plus a \$1-a-year building lease and a \$1-a-year property lease from the city for 30 years. It also obtained property tax abatement on capital improvements above the \$16,000 annual tax paid now. The expected \$50 million in revenues should make the prospect worthwhile.

Of the retail area's 350,000 sq ft, 150,000 sq ft is being assembled as part of the Phase I development, along with 10,000 of a possible 55,000 sq ft of offices on the second and third floors. Architects Schofield & Schofield of Columbus, Oh, have been in charge of the rehabilitation work, including introducing a mechanical system into all parts of the building, installing new electrical wiring where needed, and bringing the building in line with the codes.



According to Frances Crotty, in an unpublished manuscript on the original decorative arts in the Terminal, Winold Reiss should be given much credit for the development of the interior design as a reinforcement of the flow of spaces. Reiss's color scheme for the Rotunda ceiling—silver, yellow, and orange—dramatized the rainbow effect, as his swirling floor pattern emphasized the space.

The Rotunda dome, 176 ft wide, 125 ft deep, and 107 ft high, has been refurbished. But the floor, once unobstructed except for the kiosk, now has Loehmann's store in its center. Loehmann's in-house designers have created a circus tent-like display of brushed aluminum and chrome around the kiosk, now a sales counter.

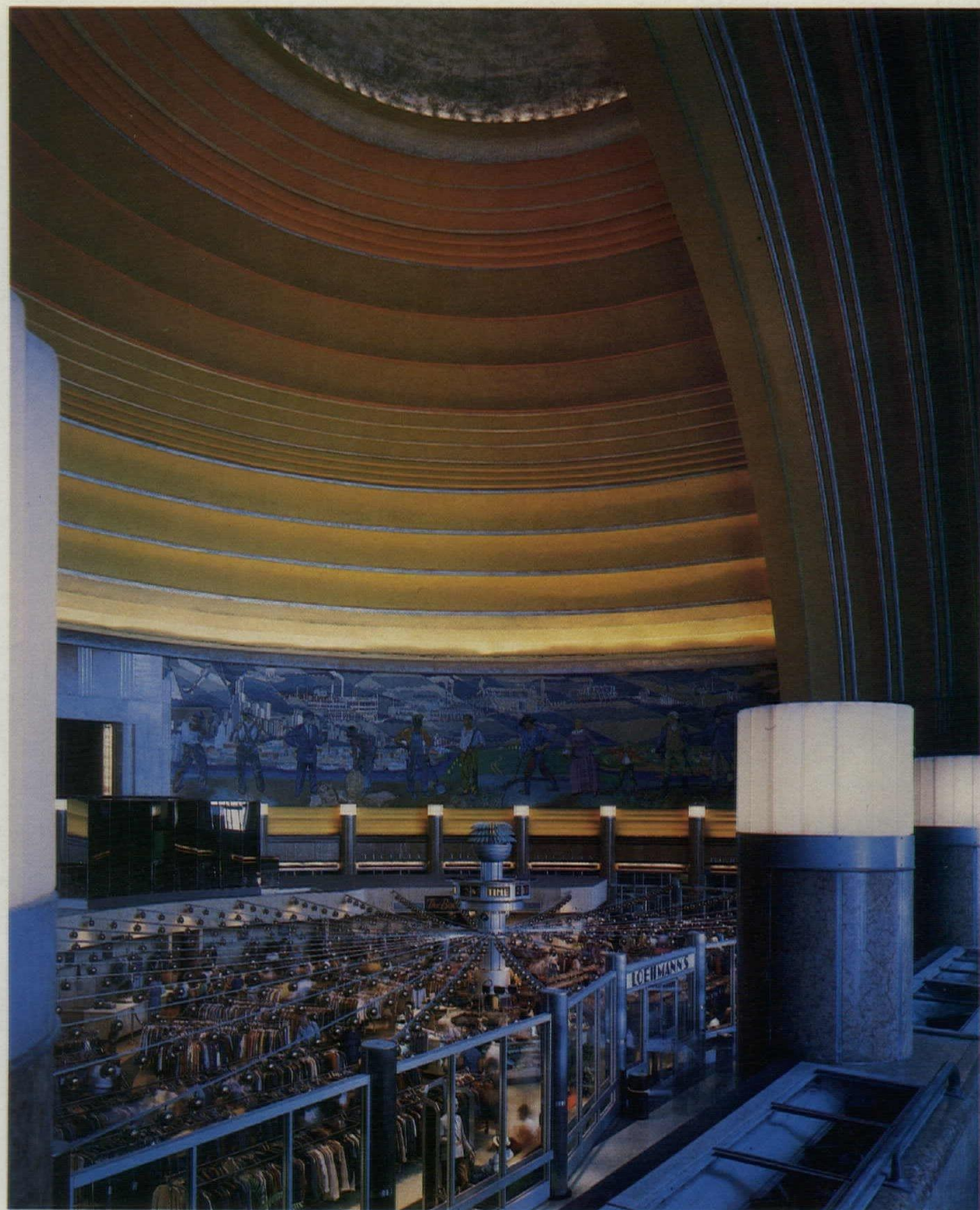
The South Wing (below), once for auto departure, now houses pushcarts and boutiques selling soap, candles, and souvenirs. In the North Wing (opposite, bottom), ethnic and natural foods can be bought. While most of the furnishings were removed for the renovation, Skilken states that some will be put back, in the shoe store and other places.

### The concept

In transforming the railroad station into a privately based, mixed-use complex, the developers needed a "concept." James Gould, director of development, marketing and leasing for Skilken, said they toyed with the idea of creating an "Oz" type of recreational environment but became more enamored of the Faneuil Hall idea. The consumption of chocolate chip cookies and machine-crafted tchotchkas has proved a successful pattern for other specialty shopping centers in the U.S., especially in old markets, brick warehouses, piers, and other vernacular vestiges of the American past. Applied to monumental architecture, such as this station, the approach has already proved successful enough to attract inquiries about adapting the concept elsewhere.

The developer lacked the essential ingredient of a commercial enterprise—location.



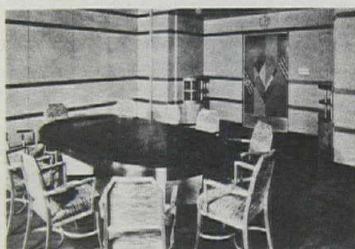
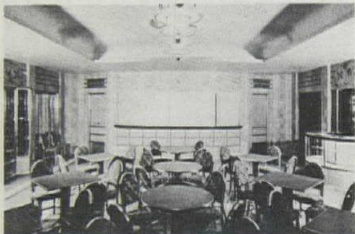
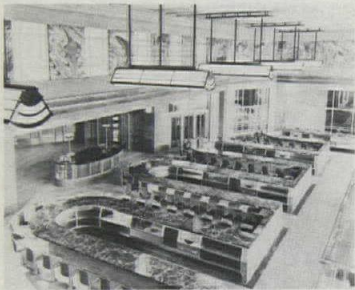


To compensate, it charges \$3.50 per sq ft rental instead of Faneuil Hall's \$16. And in spite of claims of "quality" control, Skilken more or less has allowed tenants to pursue their own aesthetic and economic dictates. But of course the interior has been unified with a gesture to a "theme" setting reflected in the 1890s signage, pushcarts, and stalls.

#### The look

Occupying the most critical position is Loehmann's, a high-fashion discount store. Placed squarely in the hub of the Rotunda, it displays a straining-to-be-elegant vulgarity in its decor that draws attention immediately to the store. A circus-tent-like pavilion of shiny chrome-finished columns, glass walls, chrome-finished streamers, and globe lights swirls brashly around the original kiosk of the terminal, all but obliterating it. The developers wanted and needed Loehmann's as the an-

## Cincinnati Union Terminal, Cincinnati, Oh



*The total design scheme for the Terminal included original lunchroom (top), the molded wood and metal elevator cabs, a tea room sheathed in ornamental Rookwood tiles (now being renovated into an ice cream parlor, middle), plus the Board Room and President's Office being renovated for community rooms (bottom) and private parties.*

*The integrated design approach included not only the mosaics and other murals, the brushed aluminum signage, door guards, and ventilator grilles, but aluminum and leather furniture, the sculpturally poured concrete ceiling above the vehicular ramps (opposite bottom), and the Bourdelle-designed linoleum murals (opposite top).*

chor for the mall. The store wanted a dropped ceiling to protect clothes from dust. Developer and city were able to convince the retailers to keep the ceiling space open and glaze walls so that the Rotunda and the murals could still be seen.

Then the store needed dressing rooms and offices. Those were grouped along a curving rear wall and reach a two-story height at the center. To camouflage the second-story office portion, Loehmann's in-house designers clad the construction in mirror. Then the outer face of the rear curved wall had a mural 12' x 200' painted on it by San Francisco artist Cynthia Maxion. The mural and the mirror are supposed to keep the observer from noticing all the built intrusions. Guess what. Even the gesture of placing a new mural beneath the Rotunda's Winold Reiss mosaic murals proves an embarrassing estimate of how the new should defer to the old.

The two curving wings that served as entrance and exit for cars and buses (parking was underneath the structure) have been given separate identities. The North Wing, where cars and buses entered, is now Gourmet Fare, a gastronomic sideshow of events that offer a range of ethnic and natural foods. The South Wing is devoted to silk flowers, pine wood "accessories" for the home, and slimming aids. Both are visually linked by the "theme" signage of 1890s locomotives, images executed in heavy printer's ink style. In addition, pushcarts in the South Wing demonstrate a paradoxically erstwhile attempt to break down the fluidity of the space and the sleek lines of Moderne architecture. The pushcarts and canopies, appurtenances from the horse-and-buggy days of cobblestone streets and gaslights, strike a clearly contradictory note with the aerodynamic imagery of the older building. Signals got crossed. These props belong in Faneuil Hall.

The more straightforward stall partitioning in Gourmet Fare in the North Wing appears less intrusive, only because the stalls look like the luncheonettes one might see at the local railroad or bus station. While the character and configuration of the space could have been enhanced, it also could have been worse. It could have been kitsched up with Decoid elements.

In the concourse underneath the Rotunda, the ramps from the North and South Wings debouch into a central and highly marketable space. There food and merchandise converge: F.A.O. Schwarz and Doubleday meet the Cincinnati Chip Yard and Natural Horizons. While this communal space receives a heavy flow of traffic, it looks mean and gloomy: the low acoustic tile ceiling, the fluorescent lighting in the old skylight-type fixtures, and the glare of lighting from the shops give it the subway ambiance in spite of butcher block tables and (original) brick flooring.

For the most part, the shop design in alcoves and other spaces within the Rotunda and concourse does not respond to the archi-

ture of the place. In addition, an art gallery designed in glass, chrome, and gray carpeting may find itself across the corridor from a booth of garishly colored T-shirts.

The rupture between old and new architecture is akin to watching a Claudette Colbert-Gary Cooper train station scene from a 1930s movie spliced with a TV sitcom starring Glen Campbell and Cher.

### Oasis

There is one place so far where the sense of the past has been simply and wisely retained. In Les Palmiers restaurant, the owners did nothing to the interior shell except for cleaning up the murals (still very dark) and adding plants, bentwood chairs, and industrial carpeting. The most drastic change in the former lunchroom was the removal of the serpentine lunch counter and reinstatement of its marble top in the Palmiers bar. A small amount of new and cute Decoid art work begins to mar the effect. But the Pierre Bourdelle-designed ceilings and murals in the two dining rooms, the hallway, and the ladies' and men's rooms still dominate.

As for the rest, at least there are no changes that have been made on a permanent basis other than the loss of a good deal of the furnishings and some finishes throughout the years. The City of Cincinnati's Historic Conservation Board does have to issue a building permit for each exterior and interior modification, since the building is a local and a national landmark.

Yet the perception of the total work of art so integral to the conception of the place no longer exists. It has been fragmented. We now have to piece together mentally what the total effect might have been by blotting out the new insertions. And what is inserted is a formula plucked out of another context.

### The total effect

What is missing, clearly, is an overall design criterion. The Union Terminal mall lacks the cohesion between architecture and display that Benjamin Thompson & Associates were able to achieve with Faneuil Hall. While Faneuil Hall does become cloying with its touristic um-pah-pah atmosphere, it demonstrates that the display of merchandise, interior design, and graphics can be approached in a systematic, unified way. Pushcarts at Faneuil Hall go along with the spirit, scale, and imagery of the old brick warehouses. And this kind of integral approach can still allow individual identity of the tenants to emerge within the larger, organized framework.

But such an integrated design approach results from analyzing the old architecture with which one is working and looking at the spaces, the materials, and the details. In other words, one needs to study the style and the "content" of the place and then decide how to foster and promote the perception and appreciation of that. Automatically applying "successful" retail formulas for the endeavor, however, destroys that delicate balance and certainly erodes the aura of the past.

[Suzanne Stephens]

#### Data

Project: *Union Terminal, Cincinnati, Oh.*

Renovation architects: *Schofield & Schofield, Columbus, Oh; Don Schofield, principal in charge.*

Interior design (for mall): *Gordon Keith Interiors.*

Original architects: *Fellheimer & Wagner, New York; Paul Cret, architectural advisor.*

Client: *Joseph Skilken Organization; Steve Skilken, owner, Sid Putschat, president, James Gould, marketing director, Mike Balakrishnan, project coordinator.*

Site: *nine-level railroad station, built 1933, with 115,545 sq ft on main floor, on 10 acres of land outside of downtown core.*

Program: *renovate for mixed-use complex: 400,000 sq ft of retail space; 55,000 sq ft of offices.*

Phase I currently nearing completion, with 150,000 sq ft of retail, 10,000 sq ft of offices.

Structural system: *existing concrete-encased steel structure, wood pile foundation.*

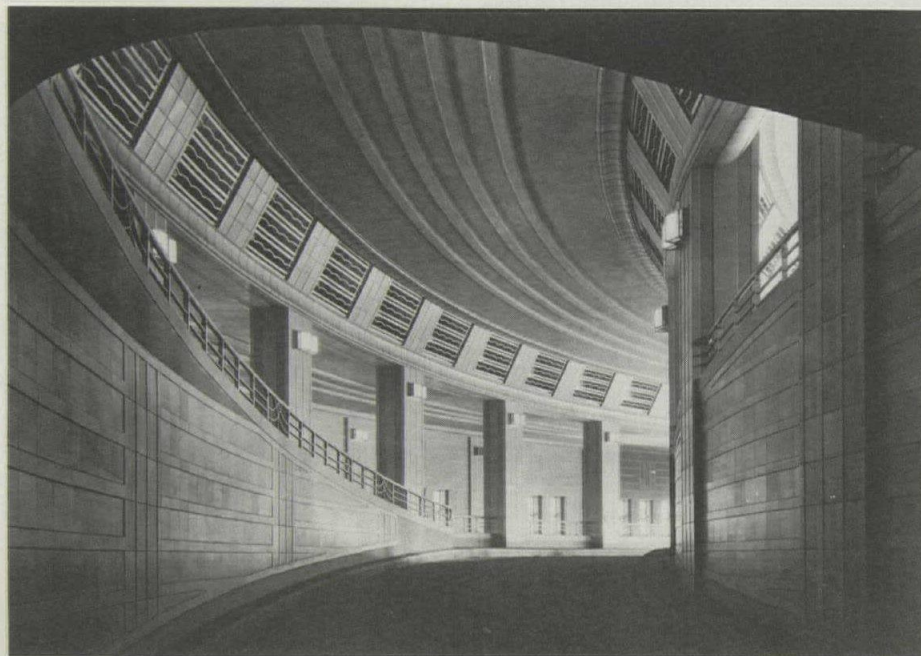
Major materials: *cleaned original exterior surfaces—granite on front, brick at rear, terra cotta roof; interior walls—marble plaster, glazed tile; ceilings: plaster with marble trim; interior floors—terrazzo, brick, concrete.*

Mechanical system: *limited reuse of existing steam heating; new combination rooftop units, gas units, and electric split system.*

General contractor: *Joseph Skilken Co.*

Costs: *\$20 million.*

Photography: *ARTOG/D.G. Olshavsky (current); courtesy Cincinnati Historical Society (original photos).*



# Under glass

**Part of Dayton's reclamation of its downtown, Arcade Square joins its neighbor, Courthouse Square, in welcoming shoppers and office workers to partake of goods and experiences.**

It is always a pleasure to watch a downtown recoup its losses from parasitic outlying shopping centers. Dayton is in the process of reintroducing downtown to the region's one million or so residents. Along with its exciting River Edge project, several new office towers—uninspiring, but built—and renewed or expanded department store commitments, comes Arcade Square. And with Arcade Square came a complex and delightful series of five buildings and a complex financing/sponsorship/management problem as well. Downtown Dayton has a series of handsome older buildings, and the architects for Arcade Square, Lorenz & Williams Incorporated (formerly Lorenz-Williams-Lively-Likens & Partners) are involved with a renovation of a number of them.

Arcade Square's components were built between 1902 and 1904; the most notable building, by architect Frank Andrews, fronts on Third Street, presenting a delightful guild-hall-influenced façade. Originally, the main spaces were used as a major farmers' market, with government functions on the upper levels. Some housing or sleeping areas, which had been located on part of the third, fourth, and fifth floors, are to be renovated into 56 apartments in a future phase. Such housing, it would seem, is a factor much to be desired for the off-hour activity it would encourage in downtown Dayton.

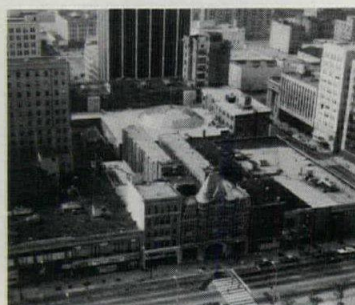


including assistance in getting the UDAG funds, leasing and operations, and construction coordination. All properties within the project are owned by the Dayton Arcade Development Corporation, a public interest corporation capitalized by six local corporations, all of which will remain limited partners in Arcade Square, Ltd.

As all of this—and it has been simplified—indicates, the arrangements were complex. The architects had to balance the needs and programs of two multi-headed clients, the City of Dayton and Arcade Square, Ltd. From the results, it would appear that this development is a model from which much can be learned about public/private cooperation. Not every city, of course, has officials with the sensitivity and/or the wisdom to hire talented design people and listen to them. It is much to the credit of both this city and this developer that, for the most part, they listened.

## The breaks of the game

Given the complexity of this project, it is amazingly true to the ideals the architects set out to accomplish. Where compromises crept in, it was usually a case of design versus dol-



*Nestled into mid-block (above), Arcade Square has three entries. The most elegant is through a Third Street building (right) housing a classically detailed arcade (opposite).*

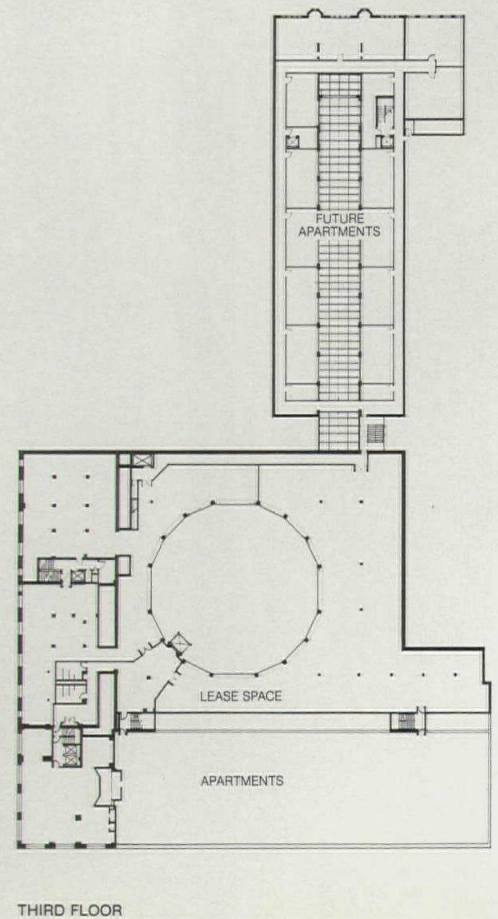
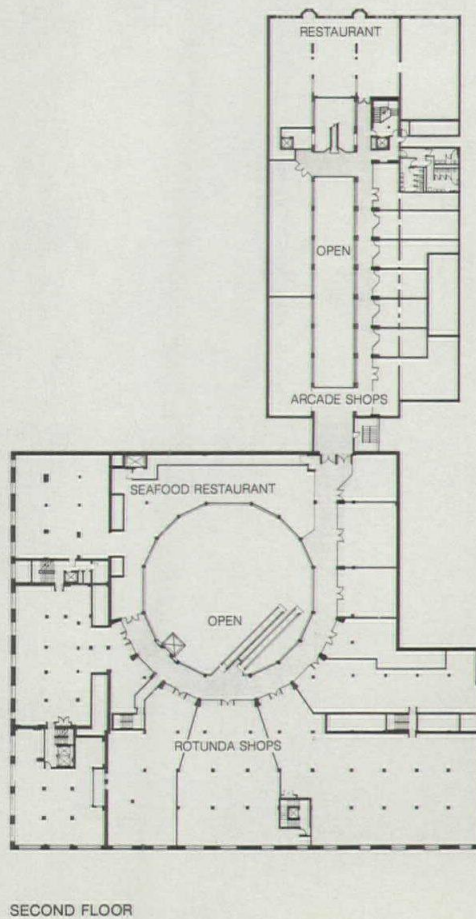
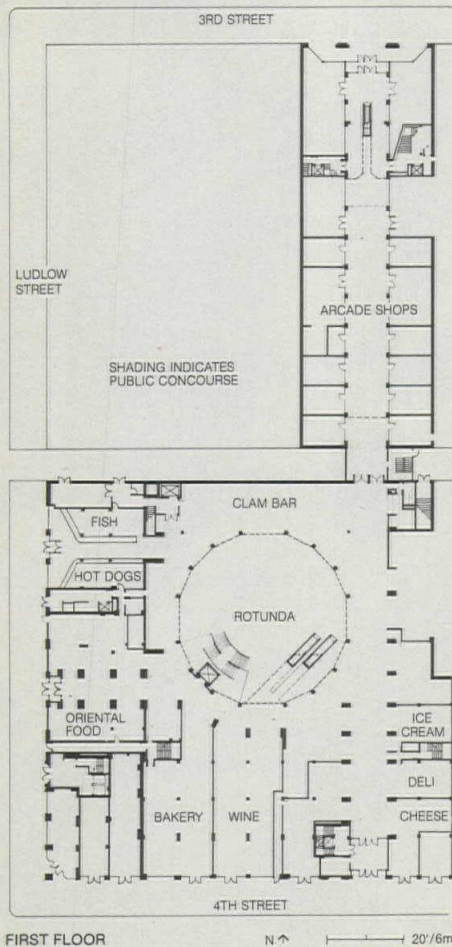
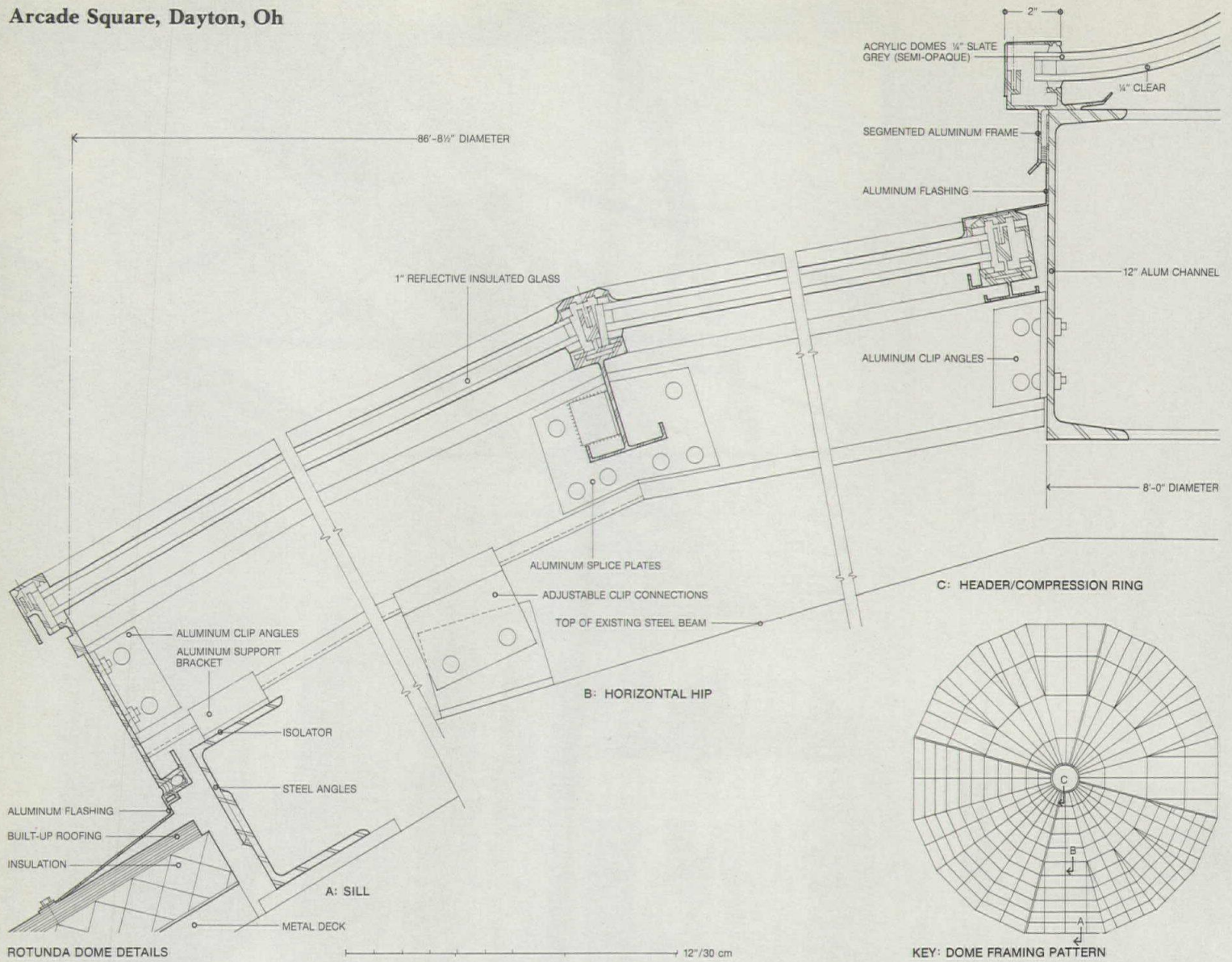
## The cast

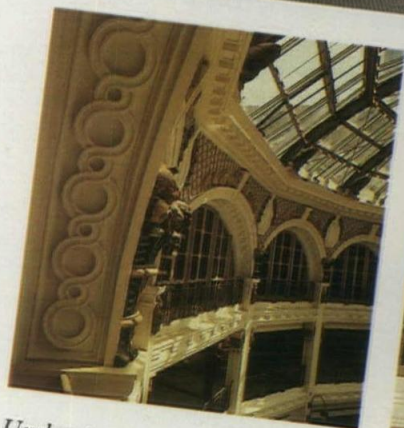
Funding and responsibility for the project have been divided into two broad pieces, public and private. The City of Dayton shouldered the walkway and dome areas, financing improvements through a local Public Works grant from the Economic Development Administration, in-kind services, and \$1 million of an Urban Development Action Grant (UDAG). Aspects included in this public sector were reconditioning of the mechanical systems, reglazing, repaving, installation of interior transportation components, and general refurbishing.

The private segment of the project is being developed by Arcade Square, Ltd. A limited partnership with two classes of partners, this organization comprises the general partner (affiliated with a nonprofit corporation created by the City of Dayton) and limited partners (local corporations and individuals). This group retained Halcyon Ltd., development consultants who were in charge of the retail concept, financial development—



# Arcade Square, Dayton, Oh





*Under the newly glazed rotunda, three commercial levels open onto the 90-ft-diameter space. Bedecked with ornamental detail, the upper level is planned for restaurant and night club use. On the middle level (right) are minimal shop fronts and broad circulation.*



lars, typical in commercial endeavors. The desire to produce as much rental space as possible forced some unfortunate escalator decisions on the designers. At the Arcade entry from Third Street, there is only an up escalator, and shoppers are asked to walk down stairs from the second level. Considering the importance of pedestrian flow across Third Street to and from Courthouse Square and its surrounding stores and offices, a one-way escalator seems a bit mean.

A more major disruption is the placement of escalators in the 90-ft-diameter rotunda space. Although angled to pick up the skewed traffic flow from the arcade, the twin escalators intrude noticeably. Originally proposed further east, out of the rotunda area, they were pushed onstage by rental space requirements. It's too bad, but it doesn't kill the magnificent space, nonetheless.

Expediency seems to have won out over taste in some shopfront design decisions. Again, the good outweighs the bad, but a couple of atrocities got by over the architects'

## Arcade Square, Dayton, Oh

objections. The rotunda space is not being used as intended yet and could use a few more places to sit and people-watch, and a few less crude pushcarts (not architect-designed). Wall and freestanding "streetlights" are not in use yet, either, awaiting replacement of overzealous HID lamps with incandescent.

Having said these things, however, we must hasten to add that Arcade Square is an absolute delight in every other respect. The Grecian elegance of the arcade and the ebullience and good humor of the rotunda are striking and engaging. The architects have done a masterful job of combining restoration with newly designed elements. The major spaces have been lovingly restored in color and detail wherever possible, allowing the prominent structure to lead the chorus. New insertions are deliberately simple and low key.

Where new metal rails were needed, for instance, the old ones were not copied, but reinterpreted very successfully. New wooden dentils in the arcade add a perfect finishing touch on new metal raceways below the skylight. Floor finishes quietly reemphasize major existing elements or recessed shopfronts. On the Third Street façade, the architects pulled the shop windows back to let the existing building speak clearly, and the column details were carefully rebuilt. Restrained metal soffits and ceilings and minimal glass fronts complete the palette of materials, receding into the background.

The rotunda promises to be a very inviting counterpart to the outdoor draw of Court-



house Square, once the weather turns inclement. Since there are still sizable chunks of unoccupied space in Arcade Square, it is too early to measure its economic or social success. Nor can predictions be made about the impact of upcoming storefronts on the whole. With luck, others will take a good look at, and emulate, the shoe store or the restaurant opening under the rotunda and not let fast food and plastic spoil a good thing. Adding housing to the mix will make the scheme just that much richer. And it is already very rich indeed. [Jim Murphy]

### Data

Project: Arcade Square, Dayton, Oh.

Architects: Lorenz & Williams, Inc.; principal in charge, Leo E. Lauterbach; project designer and coordinator, Stephen J. Carter; project architect, Erich Heppner; design team, Robert Kaiser, Ken Greisemer, Brendan O'Mara.

Original architect: Frank Andrews, Third Street building.

Program: restore and/or remodel a rundown assemblage of 5 buildings to create 114,000 sq ft of retail rental space of which 40-50 percent is for restaurants, and 16,000 sq ft of public space.

Structural system: existing steel frame, some masonry bearing walls, concrete floor slabs.

Mechanical system: city steam heat converted to hot water. Centrifugal water chillers with cooling tower. Public areas served by central air handler with low velocity ducts; commercial areas, by individual fan coil units.

Major materials: existing masonry walls with stone ornament; new storefront walls, glass and anodized aluminum.

Consultants: Helmig, Lienesch, Doench & Associates, mechanical; Lorenz & Williams Incorporated, O.E. Likens and Andrew McBarron, structural; Halcyon Ltd., development.

General contractor: Danis/Superior Craftsman.

Clients: City of Dayton, public spaces; Arcade Square, Ltd., commercial spaces.

Costs: \$7 million.

Photography: Bill Swartz, Gregory Glass.



# Energy analysis

This analysis was prepared in the Center for Planning and Development Research, College of Environmental Design, University of California, Berkeley; Vladimir Bazjanac, Ph.D., Project Director. The work is funded by the U.S. Department of Energy.

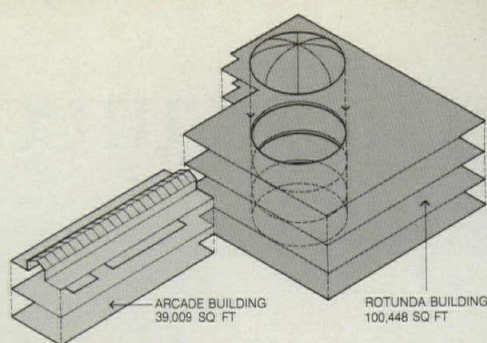
The energy analysis of the Arcade Square in Dayton, Oh, demonstrates that physical renovation can significantly improve the energy performance of a building without sacrifice in architectural quality. It also demonstrates that a renovation cannot fully compensate for the poor energy performance of the original building. Even the best solution in this analysis demands more energy than a new, energy-efficient office structure might in the same location.

This analysis examines the performance of the building as originally built and as renovated. It also investigates several possibilities to improve the performance of the renovated building. The comparison of the original and renovated buildings shows that physical renovation affects energy consumption more than the changes in type of occupancy. The renovation, as designed, is a very energy-efficient solution—no variation of architectural detail can improve significantly its energy performance.

The complex consists of two "energy" parts—the Rotunda building and the Arcade building. The Arcade performs better. The ratio between external surfaces and the floor area is relatively small because the building is an "infill." This explains the relatively small skin loads. Artificial lighting causes the biggest cooling loads (in the summer), while infiltration (because of the large volumes of air in the building) is responsible for most of the winter heating load.

The original use of the building was residential (apartments), with retail on the ground floor. The performance of that building was 57 percent worse than after renovation. If the new uses were to be placed in the building before renovation, its performance would be 32 percent worse. Daylighting can be improved only minimally (on the third floor of the Rotunda), and the savings from it are negligible. Clear glazing actually worsens the performance, and triple glazing improves it only marginally. The renovation, as designed, has the optimum amount of insulation. Even a very substantial increase in its amount does not greatly improve its performance.

Thermal loads in the building can be reduced significantly only if the Rotunda and Arcade public spaces are not conditioned. Analysis shows that 5



ARCADE SQUARE BUILDING DIAGRAM

ROTUNDA BLDG (% OF TOTAL GAIN OR LOSS) ARCADE (% OF TOTAL GAIN OR LOSS)

HEAT	COOL	HEAT	COOL
+7%	+18%	+3%	+11%
	+4%		+6%
-11%		-10%	
	+3%		+1%
-5%			
	+24%		+25%
-68%		-79%	
		+3%	
-1%		-9%	
	+1%		
-10%			
-7%	+8%	+8%	+12%
+83%	+38%	+86%	+37%
+3%	+4%	+3%	+3%
	+2%		+2%
-5%		-2%	

COMPONENTS OF BUILDING LOADS FOR THE ROTUNDA AND ARCADE IN PERCENTAGE OF TOTAL LOAD

SOLAR GAIN

GLASS CONDUCTION GAIN

GLASS CONDUCTION LOSS

GAIN THROUGH ROOF

LOSS THROUGH ROOF

INFILTRATION GAIN

INFILTRATION LOSS

GAIN THROUGH INTERNAL SURFACES

LOSS THROUGH INTERNAL SURFACES

GAIN THROUGH UNDERGROUND SURFACES

LOSS THROUGH UNDERGROUND SURFACES

GAIN FROM OCCUPANTS

GAIN FROM LIGHTS

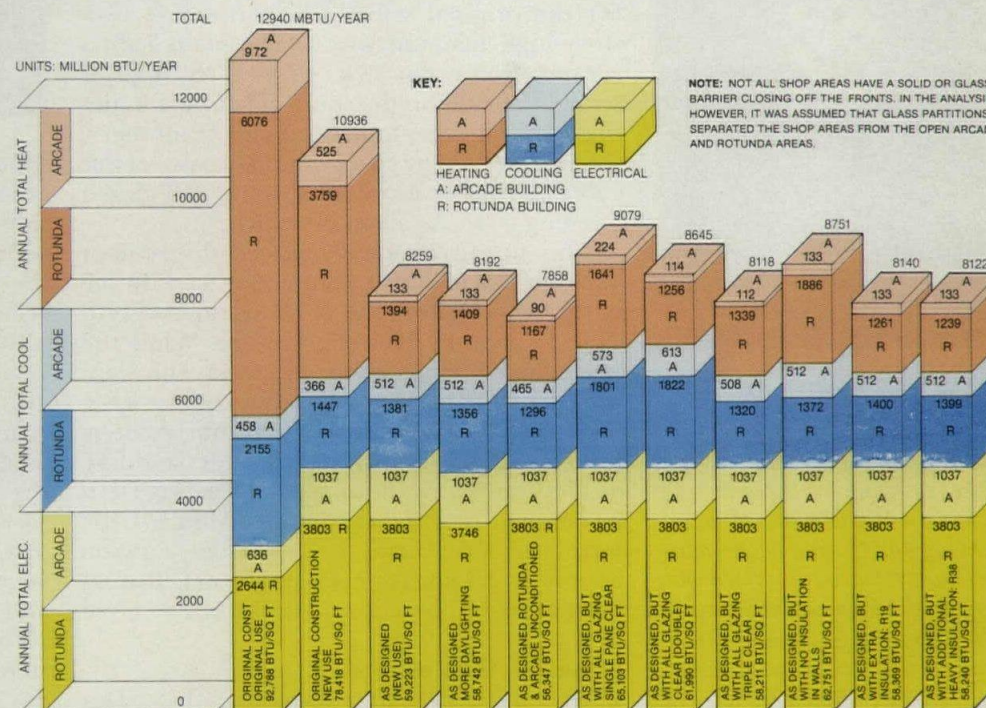
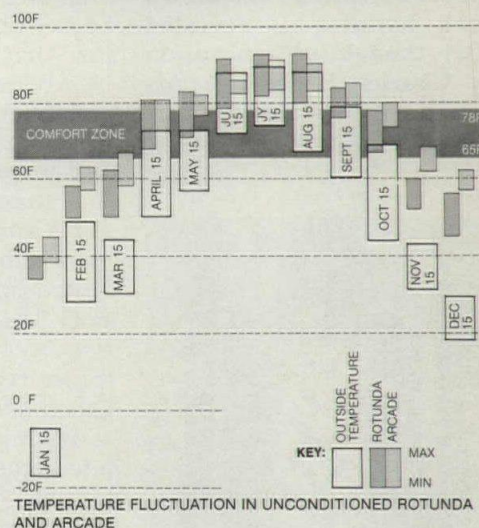
GAIN FROM EQUIPMENT

GAIN THROUGH EXTERIOR WALLS

LOSS THROUGH EXTERIOR WALLS



AERIAL VIEW OF ARCADE SQUARE



COMPARISON OF ANNUAL ENERGY PERFORMANCE

percent of energy in the building can be saved if the temperature in those spaces is allowed to swing freely; temperatures would remain quite acceptable from February to June and October to December. Temperatures in the Arcade in such case fluctuate more widely than in the Rotunda. (See note, graph above.)

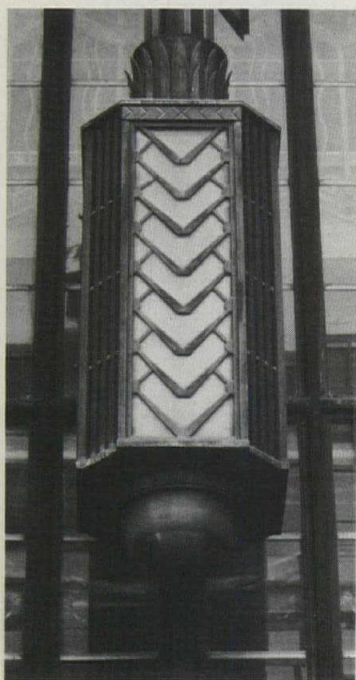
Thermostats in the conditioned parts of the building are set at 65 F for heating and 78 F for cooling, with night setback at 55 F. Since no NOAA weather tape

exists for Dayton, a TRY tape for Indianapolis was used in all simulations.

The analysis of the energy performance of this building does not include the performance of mechanical systems in the building. It is based on annual simulation with DOE-2.1. Its accuracy is limited to the accuracy of DOE-2.1 in representing buildings' thermal behavior and does not necessarily conform to the energy use profile of the existing building (P/A, April 1980, p. 100). A detailed analysis report is available upon request.

# Assets secured

**An unpretentious downtown bank building is revealed after thoughtful renovation by Charles Herbert & Associates as a paragon of Art Deco design and detail.**



*Man-sized bronze lantern (above) is seen against grid of bronze mullions in main entrance recess on north front (right). In east windows of main banking hall (facing page), mirrors have replaced glass that was backed with black paint when adjoining building blocked light. Lead stencil patterns in glazing now take their proper place amidst carved travertine and painted plaster reliefs.*

Courtesy Valley National Bank

Standing foursquare on a street corner in the heart of Des Moines is a five-story stone structure that might easily be overlooked, except by Art Deco buffs. Designed as a base for an ambitious 27-story tower, the building was stopped at this height in 1932 by the Great Depression. Neutral in color and low in relief, the street fronts of the building—facing north and west and generally shaded—reveal their subtleties only on careful inspection. Fluted limestone walls rest on a severe one-story base of polished black granite, which rises to frame a deep, three-story-high entrance recess, with fine brass and bronze details (photo left).

The muted richness outside is only a prelude to the spatial and ornamental drama that unfolds—but gradually—inside. A low lobby leads to central escalators (1951 replacements for the original stairs) which rise to a two-story-high banking space. The main hall, a column-free room 131' x 54' x 30' high, is straight ahead, on the south side of the building where it gets ample sunlight; from there, the double-height space returns, past service cores and massive columns, to the tall glazed opening over the main entrance.

This unconventionally placed upper-floor banking hall is exactly contemporary with the more famous one at the PSFS headquarters in Philadelphia, by Howe & Lescage. While the more adventurous PSFS cast aside the symmetry and ornament of traditional banking halls, this bank retains them—but reinterpreted in a way that shows an understanding of Modern spatial fluidity, as well as Art Deco ornament. Architects of the Des Moines bank were the local firm of Proudfoot Rawson Souers & Thomas (whose successors, Brooks Borg & Skiles, practice there today).

## **Forsaken, then adopted**

When the original occupants, Iowa-Des Moines Bank, moved to larger new quarters nearby, in the 1970s, the banking portions of this building were unoccupied for more than four years before Valley acquired the building as its headquarters and started renovation. Roof leaks during this period accelerated deterioration, especially of the painted plaster reliefs inside.

The local firm chosen for the remodeling, Charles Herbert & Associates, had built a reputation mainly for the economical branch banks, exercises in Minimalism, that had won state AIA and American Plywood Association awards. Their work here—very different in



type and scale—has already earned a Central States AIA award. What is more, the restoration of the painted plaster reliefs has earned a 1979 national AIA/AFL-CIO Craftsman of the Year award for Svend Paulsen, who directed this painstaking work.

While the plaster reliefs on the banking hall ceiling and walls were the focus of restoration efforts, the working space below had to be rearranged to fit modern banking practices. The 60-position tellers' counter that ringed the main hall was reduced to an eight-teller row to one side, using the best portions of original counter. With fine matched walnut veneers and restrained detail in nickel bands and etched glass, these counters are one phase beyond Art Deco in spirit and have a remarkably low profile, more typical of today's bank counters than those of the 1930s.

The furniture that now occupies most of the main floor is not the architects' choice. The massive desks and numerous bamboo Chippendale chairs—all dark stained—belong neither to the 1930s nor the 1970s, but are at least unobtrusive.

The tall windows that light the main banking hall were judged to need improvement.



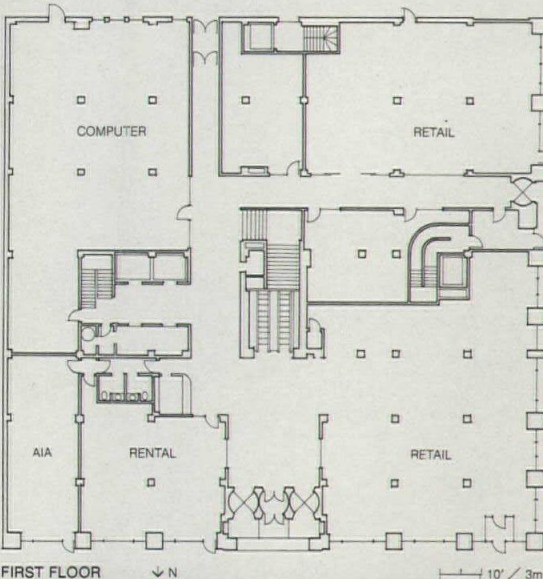
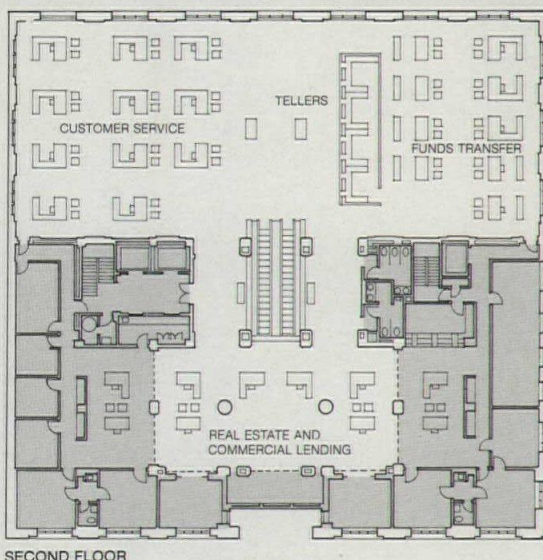
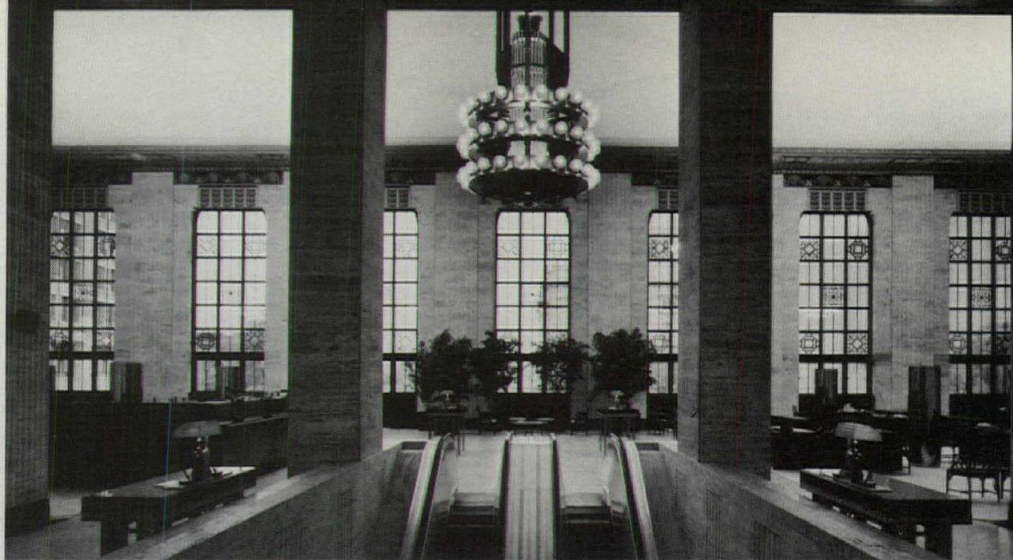
Heavy drapery that had previously fended off the sun also obscured their shapes and decorative patterns. Wishing to avoid any kind of blinds, the architects decided on silver reflective glass, which appears mirrored on the outside only (during daylight hours). The lead stencil designs, originally placed between two lights of glass, were cleaned, repaired, and reset. The metallic coating is on the outside of the inner light, so that the patterns read from outside.

The superb series of nickel chandeliers in the principal spaces had been cleaned and restored, but their function has been taken over in the main hall by eight 6-ft-high cylinders, each with 1000-watt metal halide units aimed at the white ceiling. The chromium-plated surfaces of these sentinels does tend to dematerialize them visually, but when they are noticed they seem too harsh against other surfaces here. The justification for the change is energy efficiency: the chandeliers in the main hall alone had 484 incandescent 60-watt bulbs, converting almost 30,000 watts largely into heat. Relamped with 40-watt bulbs and controlled by dimmers, the chandeliers are now mainly decorative. (Actual savings depend, of course, on turning the dimmers down—even switching off lighting when it is sunny.) Elsewhere in the building, typical office windows, which had deteriorated badly, were replaced with fixed gray insulating glass in black-painted aluminum frames.

Another attempt to improve on the original building is the polychroming of reliefs on the lobby ceiling, which had originally been painted one neutral color—probably to save money. With colors based on the upper-floor ornament, the entrance lobby now announces the building's interior character more emphatically.

On the exterior, street-level shopfronts had always been chaotically varied. Even the original uniform jamb moldings and awning covers had been largely lost. Partly out of respect for the building's formal dignity, partly to emphasize its new ownership, a uniform shopfront treatment was adopted (photo and section, right). The placement of mullions (doubling as door jambs) divides the openings into three parts, with "Chicago window" proportions. Signage is controlled, and shops have standard suspended ceilings, with louvered lighting units.

The shopfront portion is an example of today's good taste restoring a condition that never really was. We may be revering buildings such as this more than their contemporaries did, but that's forgivable. [John Morris Dixon]



# Data

Project: Valley National Bank, Des Moines, Ia.

Architects: Charles Herbert & Associates, Des Moines (Charles Herbert, Michael Smith, James Dwinell).

Original architects: Proudfoot Rawson Souers & Thomas, Des Moines.

Site: existing 5-story, plus basement, structure on 1/4 of city block, with adjoining 1/4 used for parking and drive-up banking.

Program: renovate 88,000-sq-ft building, including 52,446 sq ft of interiors for bank use.

Structural system: existing steel frame, designed to support 27-story tower.

Major materials: existing limestone and granite exterior, travertine interior floors and walls, walnut trim and paneling, plaster ceilings; new aluminum office and shop windows.

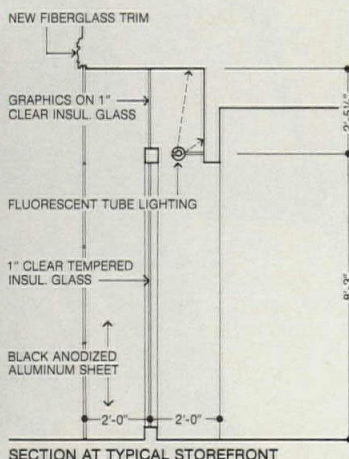
Mechanical systems: existing heating and air conditioning "updated"; new chillers and control systems.

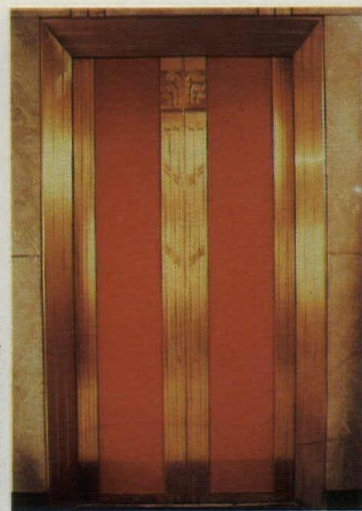
Consultants: Charles W. VanderLinden, Jr. (structural), The Waldinger Corp. (mechanical).

General contractor: The Weitz Company.

Costs: \$2 million (1979).

Photography: Paul S. Kivett, except as noted.

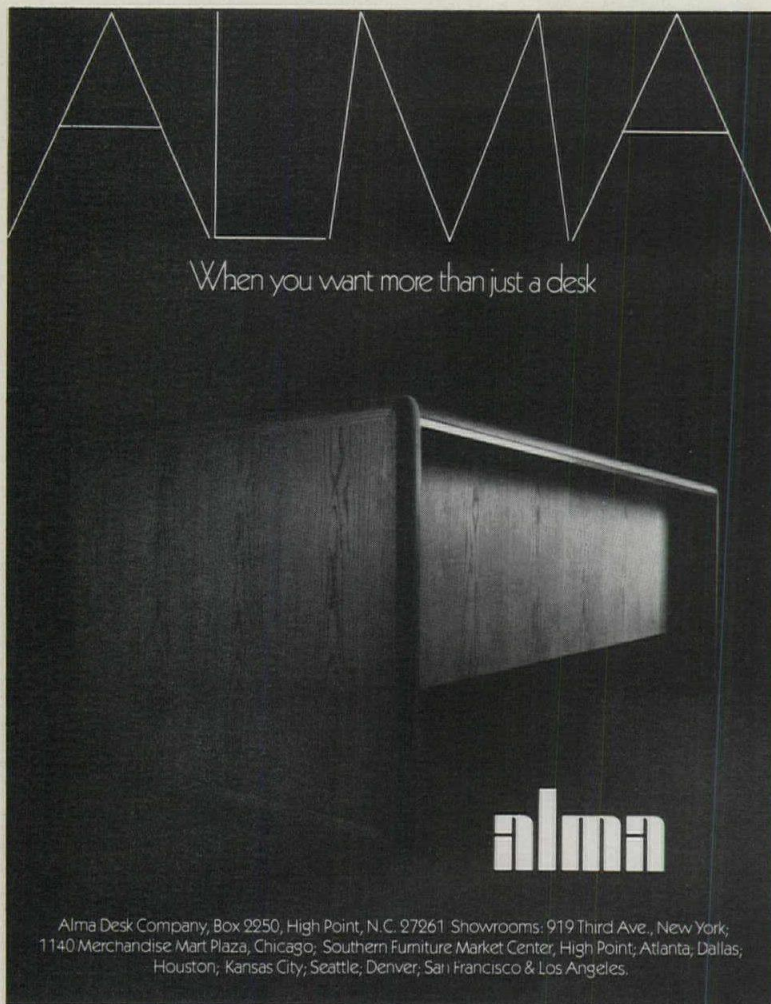




Photos l. and r. courtesy bank



*Lofty main banking hall (top, facing page and above) is linked to double-height loan department (top left). Mailbox and elevator doors (top) are original flourishes. Storefronts (facing page, bottom) are now recessed, with consistent details.*



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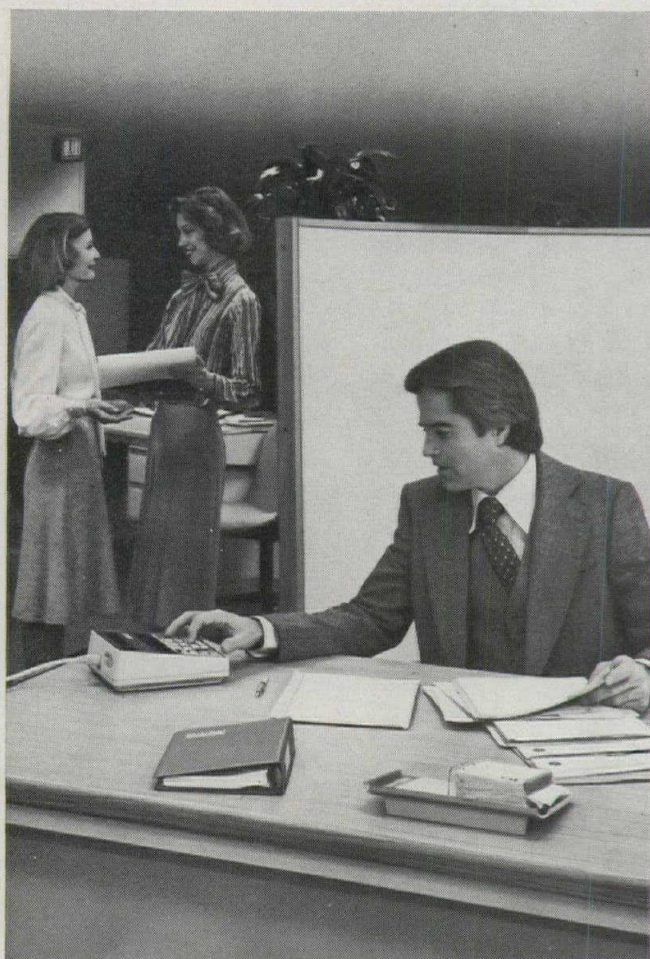
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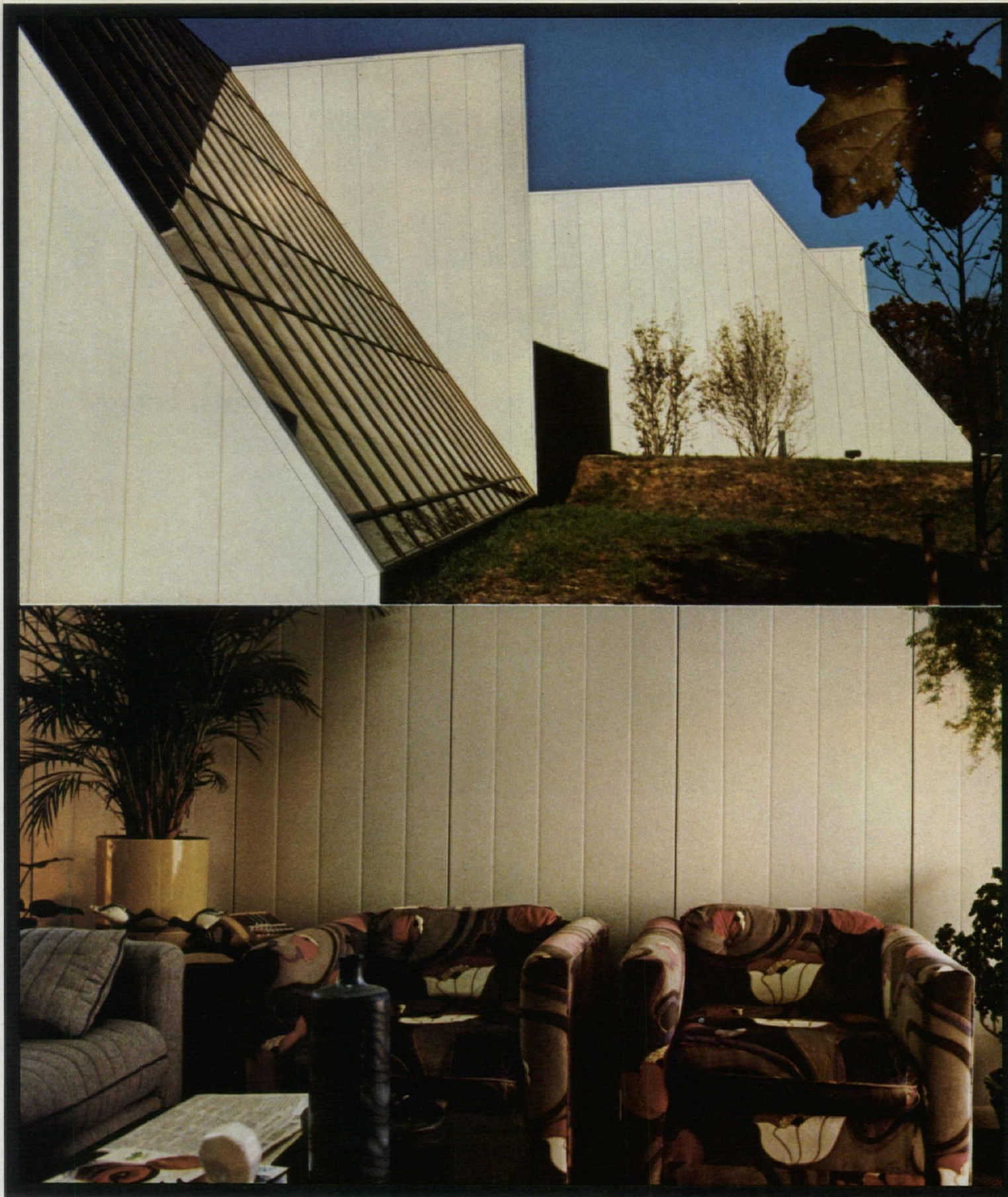
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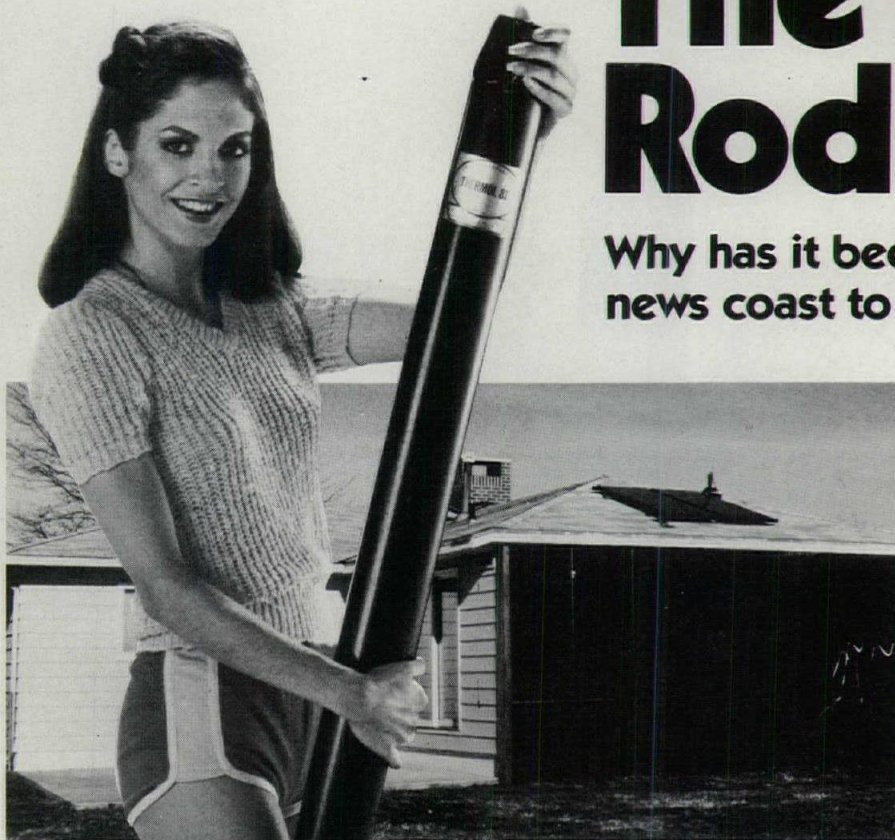
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# The unique product and public bidding laws

Walter Rosenfeld

**The conflict between uniformity and uniqueness of product description is always a problem for the specifier. In public buildings, particular care is involved in getting what you want without calling it by name.**

Bidding laws and regulations that affect the construction of public buildings funded with tax dollars have a reasonable and honorable purpose: to assure that taxpayers get their money's worth. To obtain the best price for a given scope of work, all bidders must be placed on an equal footing, and no preference can be shown one manufacturer to the disadvantage of others. Most such laws contain provisions permitting product substitution and call for at least three equal products to be specified in each case. As taxpayers, architects can generally endorse this purpose, though as architects they are acutely aware of the problems such a system presents.

While the architect can accept legally prescribed bidding procedures, rules for selection and substitution of products do not always appear consistent with his professional efforts to provide better buildings. In selecting products initially, the architect often has trouble finding three or more identically functional, durable, well-designed items for each use, and yet he knows that even others may turn up later when the often-mandatory phrase "or equal" is used in the specifications. A substitution proposed during the course of construction always threatens to mean something merely cheaper and less appropriate, perhaps by an unknown manufacturer or of greatly different character from that which he had envisaged. Though the architect is usually the ultimate judge of quality under the contract, he is always aware that he acts under observation, potential criticism, and constraint.

Consider also the plight of the manufacturer's representative trying to promote his product in a competitive marketplace. He needs to convince the specifier that his product's unique features make it especially desirable. His company may put great effort into developing new products and improving existing products. Discounts, credit arrangements, and advertising all stand behind his drive to rise above his competitors by providing something they can't duplicate, and yet government demands that his product be considered as merely equal to other similar items.

Though the architect may work to create a special building to satisfy the (public) client's needs, the building will be built, after all, largely out of common materials generally available to the construction industry. Even so, the materials will be organized and assembled to create a truly unique product: the building itself, an expression of the circumstances of its origin and of the designer's skill and vision. The added burden in doing public buildings is to develop and maintain the building's unique character without going

beyond the limitations of product selection imposed by the "or equal" philosophy.

Several specification techniques are available to help deal with this dilemma. All are discussed in the CSI Manual of Practice, Chapter 11, "Methods of Specifying." Though naming three manufacturers and their products is the most direct response, the amount of research involved is considerable, particularly the first time around. Also applicable is the descriptive specification in which the product is only identified generically, with no manufacturer cited as a source. Of course, all important characteristics must be mentioned if no surprises are wanted when the proposed manufacturer's data are finally submitted. Performance specifications, another method, are often suggested as a cure-all, but they are by far the most difficult and time-consuming to write, since the desired results must be set down in great detail. Controlling the physical appearance of the product by this means is especially difficult, and the manufacturer's degree of latitude in approaching the problem is usually wide.

Other strategies exist for dealing with some of the more troublesome cases. Allowances can be established where artwork or some other undeniably unique product is required. Alternates may be permitted where new products or proprietary systems are desirable; but with alternates, the emphasis is still usually on low price, and unless the product is successful in the marketplace, it probably won't be selected.

The conflicts between uniformity and uniqueness, between special quality and low price, are old ones and not easily resolved. The architect's challenge is to create public (and private) buildings which may be unique out of this variety of similar but not always equal products and processes. Many of the specifier's skills are needed to deal with the regulations of public agencies, particularly in the choice of products and the method of specifying.

It may well be, as a famous modern architect once said, that "God is in the details." Practical experience clearly indicates, however, that it's Caesar's project manual. □

Walter Rosenfeld, CSI, is Managing Director for Professional and Technical Services at The Architects Collaborative, Inc., Cambridge, Ma.

# Acorns to oaks

**Time and distance rarely permit the architect to meet his decision-making counterparts in the manufacturing fields. The architect's interface is often with a sales representative, convention exhibitor, or product literature. Locked into every product selected, however, is a world of creative human endeavor as rich and fascinating as the design of the building itself. To illustrate this fact, we have selected six manufacturers who, in the combined breadth of their product lines, encompass an impressive array of design interests. Their ideas and experiences act as both a mirror and a mask for ours. After all, we use them both to express our architectural ideas exactly and to cover for our areas of ignorance.**

## **A tree grows in Santa Barbara**

The wood carving on the door seemed appropriate. A condominium built at shoreside at Lake Tahoe did not need to be a Swiss Chalet to have a mountain flavor. Perhaps a carved wood door would give the dwelling the extra touch that would sell it. Sherrill Broudy was the designer of the building; the year was 1963. The dwelling sold, the door sold, and within three years Broudy was to give up his design practice to devote his time to his new Panelcarve business.

Broudy had been in the design profession for nearly 15 years when he made the leap into product manufacturing. Trained as an industrial designer, he worked briefly for Raymond Loewy, Victor Gruen, and the then combined firm of Pereira & Luckman. By 1955, he was on his own as a designer of buildings. After a year, he gave up and "retired" to Mexico. His brief stay there resulted in the birth of a small glass mosaic business, which he brought back to Los Angeles when he returned to resume his practice. His design work progressed up the California coast to Mill Valley and then Lake Tahoe. The condominiums with the carved doors were a joint venture with U.S. Plywood.

To produce his carved wood doors, Broudy found a small shop in Los Angeles that used mechanized wood-carving machinery. Soon that machinery had turned out 15 different Broudy

designs, and Panelcarve was born. By 1967, he was in the business full time and doing well.

But the door pulls weren't right. Recalls Broudy, "We always had a hard time getting good hardware for our doors." For his earlier glass mosaic business he had created cast-bronze cabinet pulls through a foundry in Italy. So when he and sculptor-painter-wife Joy took their next trip to Italy, they spent a week in a pension in Florence, turning out door-pull ideas in the morning and taking them to the foundry in the afternoon. They put the most successful versions in a new suitcase and left to complete their European trip. Back in California, the ten door-pull designs in bronze eventually became the patterns for the first door hardware castings. By 1968, it was clear that the company was going to make more than carved wood doors and panels; it needed a new name—"Forms & Surfaces."

Joy Broudy's experiments with cast-aluminum door pulls led to aluminum tiles. The tiles were expensive, and on the next trip to Europe, Broudy was searching for a more inexpensive, lightweight method of obtaining a metallic wall surface. He found an English craftsman, David Gillespie, in Surrey, England, who had produced a wall panel that Broudy had seen in an English hotel. Gillespie had used "cold cast metal," a method of combining polyester resin with bronze powder, reinforced with fiberglass, that had a finish which, when complete, looked like bronze.

Soon Gillespie and the Broudys were back in Santa Barbara in an old rented boatworks, working out ten designs in clay for the new Forms & Surfaces line of "Bonded Bronze." By October of 1969, the new product was available, and the aluminum tiles were phased out. What started as an idea for door and wall panels later blossomed into planters, benches, and elevator facings.

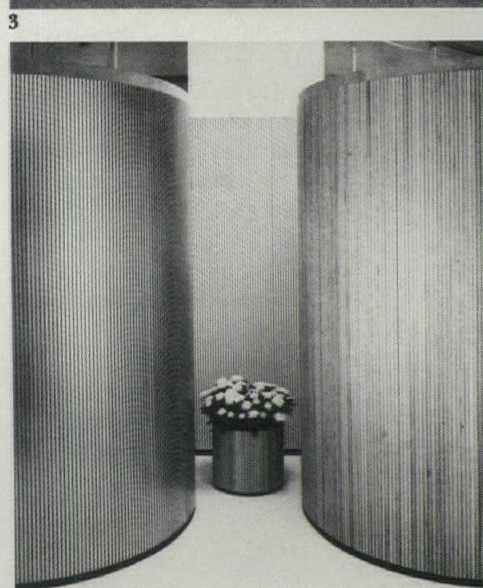
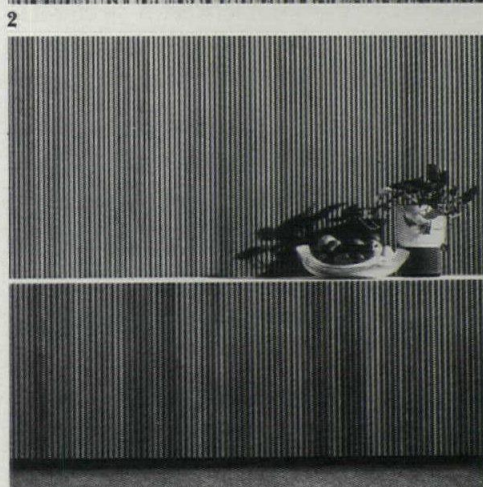
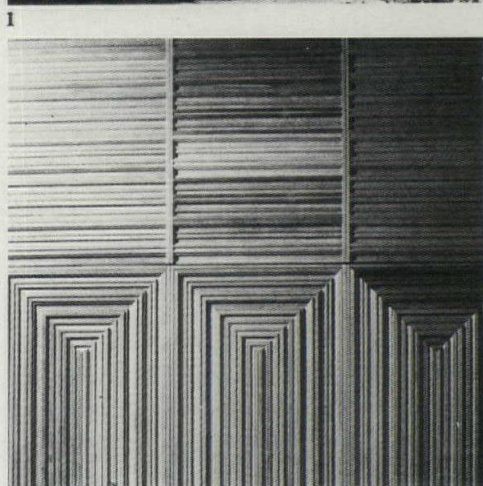
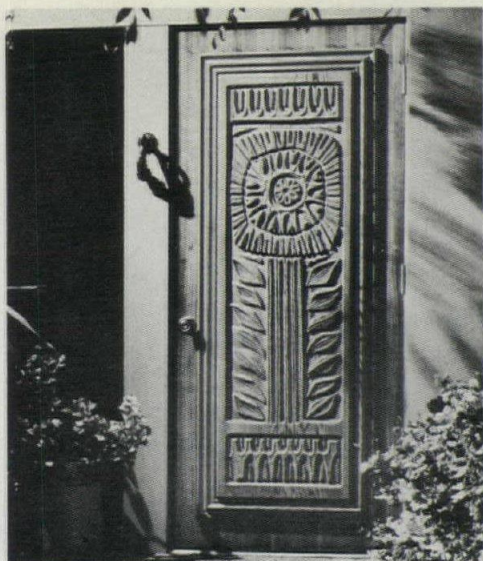
The early 1970s proved to be a turning point for the young company. Explains Broudy: "We began to think about our direction and what kind of design we wanted to do. Our own sympathies were with pure architecture, and Panelcarve was not the ticket for contemporary architecture."

In 1973, an ex-architect named Harold Edmondson walked into the Forms & Surfaces office with a product he thought would interest Broudy. The machine he had invented made it possible to groove the two sides of a 4-ft-wide wood panel in perpendicular directions to produce a wood grille. The product was called "Sculpturewood," and Broudy liked it. He bought the license to use the equipment and evolved his own oak and redwood variations in the original patterns. Says Broudy, "This launched us into wood panels. It was a natural direction for us, something clean and crisp for contemporary architecture."

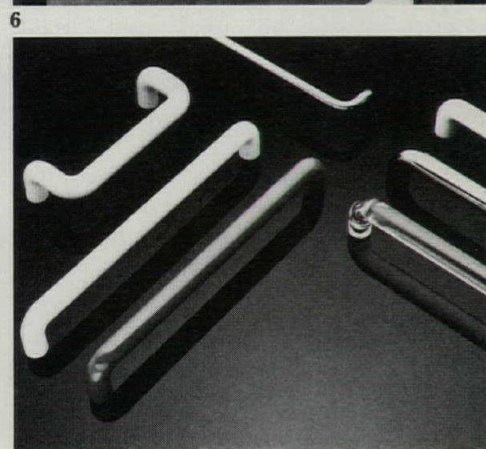
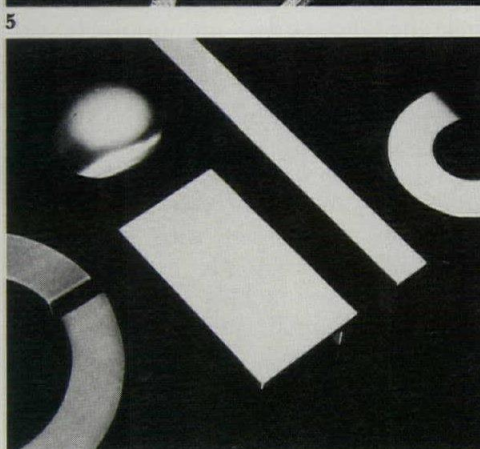
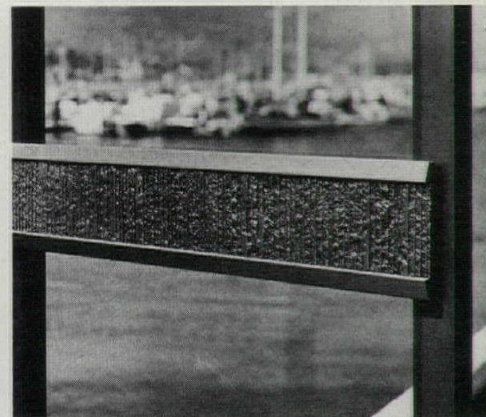
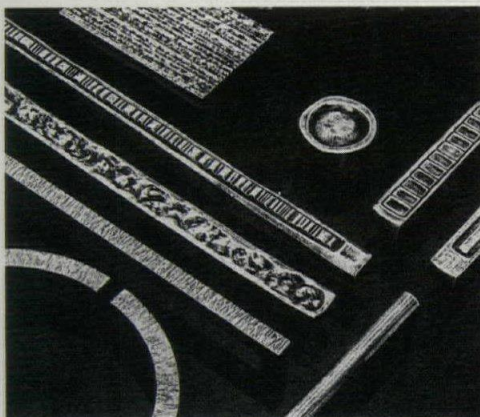
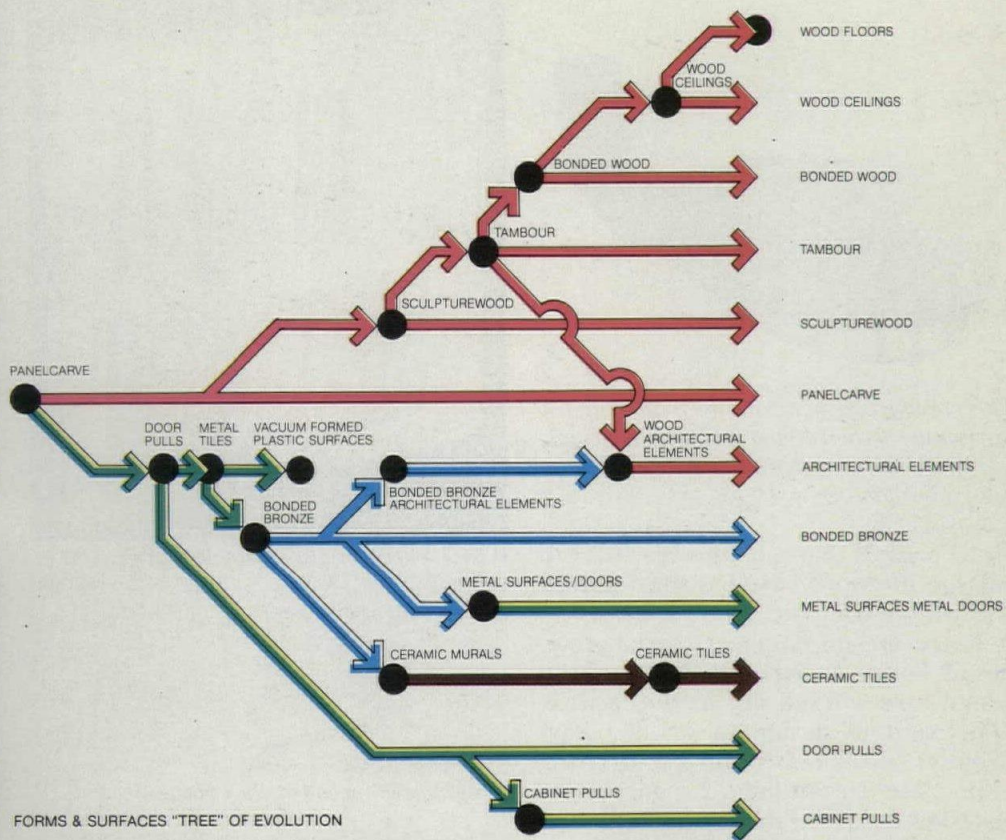
Forms & Surfaces then turned to laminating their redwood and oak to make planters and benches. Broudy soon found that he "couldn't predict what would happen to the laminated pieces when they were shipped to other parts of the country." The answer proved to be the bonding of 2-in.-wide thin wood layers (backed with perforated paper) to a pressboard substrate.

Broudy does not use market research. "We usually go on gut feelings about things." For Tambour he recalls: "I remember seeing architectural sketches of something that looked like Tambour, but there never was any Tambour." A tambour is the closure used for years for the old rolltop desks. Forms & Surfaces now makes Tambour for use on curved surfaces.

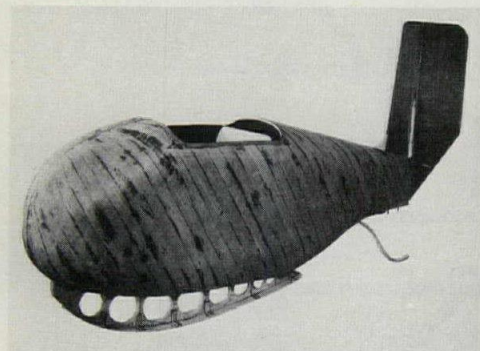
The philosophical direction of the company soon expanded into all realms of the architectural interior, and the ceiling and floor were added. Broudy was building a house in 1976 and couldn't get satisfactory ceramic floor tiles. "There was a need in the ceramic tile field," he says, and he decided to sell ceramic tiles. "We set out trying to find a



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The chart and photographs trace the product development of Forms & Surfaces from its first product, Panelcarve, to today's full line of interior products. 1 Panelcarve, 2 Sculpturewood, 3 Patterned Sculpturewood, 4 Tambour. 5-8 The evolution from the first cast metal door pulls to the simple lines of today.



*These products demonstrate the single-minded fascination Robert Keller had with the bonding of dissimilar materials. The above training glider dates from 1945.*

tile company that would make tiles to our specifications." He has since started his own tile company.

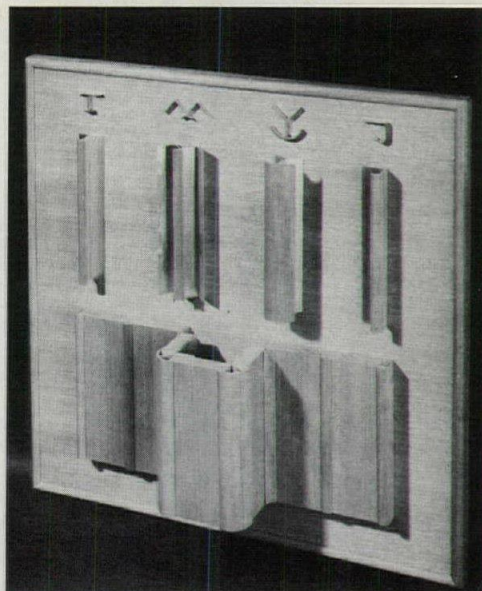
There are no engineers or laboratories at Forms & Surfaces. Many of the designs are worked out in the factory. "The kind of designing we do," says Broudy, "you don't do in the drafting room." He tries to limit the number of materials used. "Architects use a limited variety of materials. I just love a single material in a space. It produces a more quiet envelope."

He also does more and more of the manufacturing himself. "It's hard to tell another manufacturer how to make what you want." The trick, he explains, is "using good solid materials and detailing them perfectly." The smaller firm stays ahead of the competition by being inventive. "If it isn't revolutionary, we aren't going to do it."

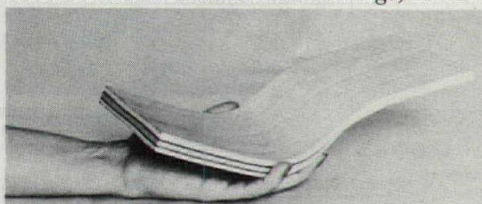
The ultimate direction? Factory-made modules that could be used for different purposes on both the interior and the exterior. Plastic or metal "pod" structures that could be used as part of factory buildings, exhibitions, transportation rest units, or vacation modules. Inside? "Of course, we would use our own products." Broudy concludes: "There is a vast, unexplored world out there of things to be designed for architects. Problems are our opportunities."

### The age of bonding is here

By the end of World War II, Robert Keller was prepared to start his own business manufacturing an extruded aluminum molding faced with wood veneer meant to match interior panels. His teenage fascination with bonding dissimilar materials had led him to experiment with fabrication of wood and fabric gliders and a pressboard surfboard.



*Wood veneer on aluminum moldings, 1943.*



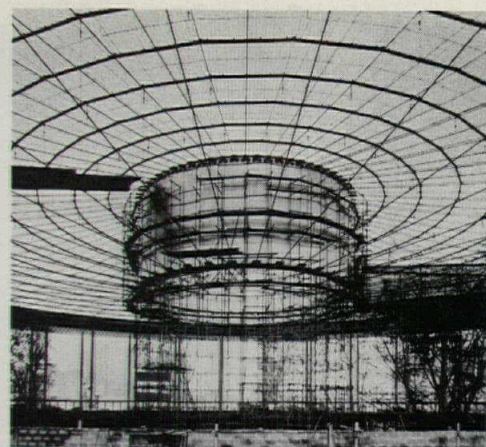
*"Engineered" wooden shoe blanks.*

The "hands on" attitude of "make it, test it, and break it" was well ingrained by the time he finished his business training in college. It enabled him to convert the store fixture company, which he managed before the War, into one which did war work making molded plywood airplane parts and panels.

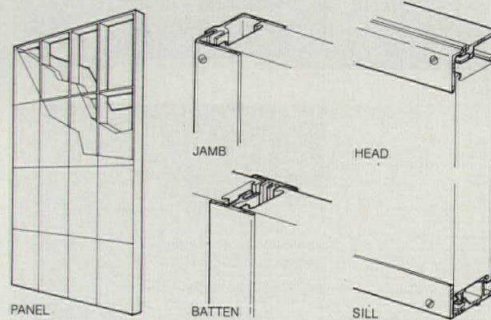
His business experience had made a generalist out of him and left him open to all new ideas. It had also made him a pragmatist: "If I can't get through a problem," says Keller, "I get around it." Armed with this kind of knowledge and experience, and no small amount of luck, he also added intuition. He explains: "I knew I had a profitable idea."

The result was that Keller sold "miles and miles" of aluminum molding. It was not easy. The first three years, while he managed a plywood company in Maine, he also experimented with acrylics and polyesters reinforced with glass and other filling cloths. He expanded his knowledge to include high-pressure laminates and the new experimental resins for plywood.

Using intuition and careful observation, Keller soon had his manufacturing shop producing all sorts of custom "bonded" products: glider parts, molded plywood furniture and plywood cabinets, floor panels for the Stinson Stationwagon plane, honeycombed aluminum panels for the early Sikorsky helicopters, boat cabin rooftops, shoe heels, parts for government contracts, and some custom work for architects. Says Keller, "We got more and more into sandwich panels. When a new core material came out, we got involved." By the early 1950s, Keller's young custom



*U.S. Pavilion, Brussels World's Fair.*



*Kalwall panel and edge details.*

job house "had as much experience in bonding panel construction as anyone in the world." He set a new goal: "We need a finished, proprietary sandwich material."

Keller's war contacts with architects and postwar experience in the construction field had exposed him to a growing interest in panel construction. The liability concerns and short-term needs of aviation were too demanding for a fledgling technology. The building industry moved more slowly, involved less risk, and allowed time to perfect new ideas.

He also recognized that architects have strong preferences for materials, and he consulted directly with over a dozen local architects during the creation of his new product. He decided on a lightweight, inexpensive insulating panel that would last the life of the building and transmit light. The surface materials would be thin fiberglass sheets, and the framework would be aluminum. The problem was the adhesive, a problem that Keller was confident he could develop the technology to solve. The result he called Kalwall: K for Keller, AL for aluminum, and WALL for the expected use of the material.

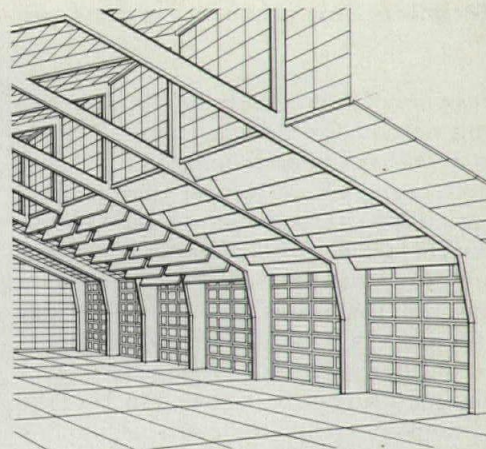
Success was not immediate. Keller recalls: "We had a great panel, but we couldn't sell it." He needed a new means of fastening the panel to the building. The experience in the molding business soon produced a design for a clamp type of fastener which allowed for construc-



Solar tubes and phase change "pods."



Sunspace using Kalwall roof.



Future use of Kalwall in light industry.

tion error and varying thermal expansion and guarded against delamination. The product began to sell, and sales again improved with the design of Keller's own windows and vents. Then he ran into building complaints and installation problems. "People always blame the new product." So he started his own installation company and eventually included the transportation of the product to the building site.

By the late 1950s, volume production had begun. Edward Durell Stone had used the material on his pavilion for the Brussels World's Fair. Philip Johnson constructed a roof of Kalwall for his New York State Pavilion, and Hellmuth, Obata & Kassabaum employed it on the St. Louis Priory Church.

Products such as the Kalwall panel are never allowed to become fixed in design. Each architect, use, and building is unique. The values of the society change. The fiberglass used in the product has varied substantially over the years, reflecting concerns for vandalism, fire protection, quality and quantity of light, and energy conservation. As Keller puts it, "The work is never done."

Keller's experience with the myriad needs and products before his plunge into Kalwall exposes an uncommon curiosity. He explains: "I like to get into fields where the other fellow isn't. My kicks come from tomorrow's products." This mentality led to a venture into lobster farming, which eventually failed, but resulted in the creation of fiberglass water storage tubes. When "water walls" came into use in the early 1970s, the water tubes were converted from containers for cold sea water to storage of energy-laden solar-heated water.

Keller's newest entry into the energy market is Kalwall "pods" containing phase-change chemicals, which can replace the water tubes in a building situation short of the space and weight capacity. When the pods are exposed to solar heat, the chemical crystals liquefy, storing the heat. A future advancement will be what Keller calls a "heat mirror," which promises to increase insolation and insulation of his walls. Eventually, all of the Kalwall products will be avail-

able in an energy-efficient premanufactured metal building system for light industrial purposes.

Keller's value as director of all this activity transcends the technology involved. "I make progress through communications with people." He continues, "First I get the big picture, then I go step by step." He usually goes from the practical reality to the theory behind it, and encourages as many multiple uses for his products as possible. He does not see himself as a good salesman. He adds: "Most of the time we have been very far ahead of the market. The innovator has to know when to back off plans or be able to stick to them when others back out. Ideas are a dime a dozen; the value is to make something of them."

#### Faith design and technology

Dirk Jan De Pree, at age 38, had owned his furniture company only six years when the Depression of 1929 hit. In the words of D.J. De Pree, "I was sure we weren't going to make it." The Zeeland youth had worked for the Michigan Star furniture company since graduating from high school. He married Nellie Miller in 1915 and was able to convince her father of the future value of the company and to buy controlling interest in Michigan Star. De Pree changed the company name to Herman Miller in the father's honor, hoping to attract some of the success Miller had already brought to his own clock business.

The quality was going into the furniture, but the label was being torn off by the stores where it was sold. The fashion market was demanding new designs, while the inventory piled up or was sold off at a loss. Plagiarism was the rule, and the best designs were period replicas. The South was competing with Grand Rapids, and had cheap labor and ample supplies of wood. D.J. De Pree had no answers for these business maladies.

Late one afternoon, Gilbert Rohde walked into D.J. De Pree's office with some new ideas about furniture. De Pree remembers the hour because, "I was sure he had gone to every one of the big boys in Grand Rapids already." The designs that resulted from that meeting proved to be a revelation for De Pree. At first he criticized them for being "utterly plain" and compared them to manual training school design. Rohde countered every criticism and convinced De Pree that "I didn't know what I was talking about and he did."

Rohde unfolded the design philosophy which is paraphrased here: *The interesting thing about a house is not its furniture, it is the people who live there. We mustn't "over furniture." Women don't have maids any more. This is new furniture, and it must be sold as new furniture, not artificially aged or copied from another period. We don't deal in fakery . . . no pretense, no phoniness. The furniture must be multipurpose and long lasting, no more fashions. We don't change a design until we have something better. The answer is repetitive manufacturing; it will lower the cost and improve the quality. We are not selling furniture, we are selling a way of life.*

To D.J. De Pree, all of this was "just plain common sense." He linked it to the Christian principles which dominated his childhood in the Dutch Zeeland community. De Pree continues: "Rohde taught me basic things about good design and design responsibility."

For five years or so, Herman Miller continued to manufacture both traditional and Rohde's modern furniture. The combination of commercial success in the East and simple conviction finally transformed the company into a fully "modern" furniture company. The turning point might have been the Chicago World's Fair where De Pree sat and eavesdropped as customers came and went from his Herman Miller display. He marveled: "The people understood what was going on."

Rohde's untimely death in 1944 left the Herman Miller company without a

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designer. De Pree searched in America and abroad for a replacement. A story in *Architectural Forum* magazine led him to George Nelson. Nelson, then managing editor of *Forum*, along with Henry Wright, wrote the story about a wall that organized and stored the various objects found in the home. Like Rohde, he was articulate, and De Pree found him to be a "student of living." Nelson had never designed furniture, per se, but De Pree commissioned him to design his first line for Herman Miller between 1945 and 1946. Before it was even into production, Nelson called De Pree with raves about a new chair he had just seen. "This chair is the best thing in chairs I have ever seen." The chair was, of course, the first Eames molded plywood chair, its designers, Charles and Ray Eames.

With Nelson, therefore, Herman Miller got more than a single designer. Nelson brought with him a critical eye for quality in other designers to complement his own talents. De Pree remembers Nelson's words: "I don't have all of the good ideas." Nelson did not want a team of designers; he wanted what De Pree calls "a stable of a couple of good horses to do the racing." So with Nelson, Miller eventually got Charles and Ray Eames, Paul Lazlo, Alexander Girard, and even Noguchi.

In the 1948 Herman Miller catalog, George Nelson described the design philosophy formally as follows:

*"What you make is important.* Herman Miller, like all other companies, is governed by the rules of the American economy, but I have yet to see quality of construction or finish skimmed to meet a popular price bracket, or for any other reason.

*"Design is an integral part of the business.* The designer's decisions are as important as those of the sales or production departments. If the design is changed, it is with the designer's participation and approval. There is no pressure on him to modify to meet the market.

*"The product must be honest.* Herman Miller discontinued production of period reproduction almost 12 years ago because its designer, Gilbert Rohde, had convinced the management that imitations of traditional designs were insincere esthetically. . .

*"You decide what you will make.* Herman Miller has never done any market research or any pretesting of its products to determine what the market 'will accept.' If designer and management like a solution to a particular furniture problem, it is put into production. There is no attempt to conform to the so-called

norms of 'public taste,' nor any special faith in the methods used to evaluate the 'buying public.'

*"There is a market for good design.* This assumption has been more than confirmed, but it took a great deal of courage to make it and stick to it."

George Nelson's formal and informal design leadership at Herman Miller continued for more than two decades. His influence was felt in every aspect of the company's public profile, and the Herman Miller graphic symbol was designed by him. During this period, the product line of Herman Miller ventured forth from the home and into the office. His relationship with Herman Miller continues today, after 35 years.

It was under the influence of Robert Propst, however, that Herman Miller flowered into the Action Office. D.J. De Pree was on a visit to see his young son in college in Denver when a local architect suggested that he meet Propst. The designer was working at that time on a bed designed for paraplegics. His shop was his garage. De Pree recognized the Propst genius for function coupled with a "heart for solving a problem." After their third informal meeting, De Pree was convinced that Propst should work for Herman Miller. Together they worked out the concept of the Herman Miller Research Corporation.

The concept was that Propst would come to Ann Arbor, Mi, and establish a research center with himself as head. A similar idea had been approached years before by Nelson and Eames. Eames was for the establishment of a technical center much like the automotive test centers. As Eames described it: "The tech center must be responsible for making a product unassailable in the marketplace." The research center concept was less engineering testing oriented.

When Propst arrived, he had 39 different projects in mind. It was a major chore to narrow down the tasks to a few to begin. It was also during this time that the direct leadership of Herman Miller passed to Hugh De Pree. With the change of leadership went a team and systems emphasis that ideally suited Propst. By 1962, Herman Miller had adopted the systematic approach.

Consistent with the systems method of design, Propst created a very clear and coherent set of criteria for his open office design work. It makes an interesting comparison with the statements of Rohde and Nelson before him. These criteria are as follows:

"A good design delivers an anticipatory intelligence. It should readily yield

to what good managers, planners, and users want to do—provide an equipment world with very human attributes. The criteria that allow this to happen are:

*Forgiving:* Ready to forgive without penalty the arrival of the contingencies and errors in planning that are inevitable in human affairs.

*Coherent:* A comprehensive system of parts that work in agreement and that bring other services into agreement in a complex environment.

*Process forwarding:* Ready to interface with the work process and help carry it forward.

*Modular limited:* With complete assembly agreement and simplicity, the fewest possible parts serving the maximum depth of functionality.

*Open ended:* A growing, evolving system going with organizational life where it needs to go, open to new solutions, able to drop off obsolete functions.

*Readily available:* A stable, predictable commodity ready for long-term involvements and supplied by a dedicated organization.

*Replaceable:* The ability to react to wear, failure, and obsolescence with simple, economically plausible decisions. Agreeable to periodic regeneration.

*Progressively enterable:* Allows a progressive involvement with a new order of things; a way to gradually gain experience and skill with a new effect, to experiment, educate ourselves as users.

*Facility renewing:* Provides a way to consistently bring a fresh new capability to facilities, old or new."

The Action Office concept of the 1960s has been augmented in the 1970s with COSTRUC, short for coherent structures, a hospital and laboratory application of the systems approach which needed the addition of only 300 new parts to the 3000 available from the Action Office. The most recent application is the Action Factory, which needed only 85 new elements added to the system to create a work environment tailored to the specific needs of light industry. In a factory with office personnel as well, the use of the system serves to reduce the distinction between the two types of workers.























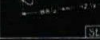




















It is no accident that such an equation is attempted by Herman Miller. From the early years of the 1920s to the present, there has been a concerted effort to treat the company workers as peers. The company adopted the Scanlon management technique in the 1950s. The system incorporates increased employee participation in decision-making processes, corporate division bonuses, and a formalized communication system that takes decisions from top to bottom to top of the corporation.

This importance of free communication has also been the key to relation-



# STYLE DIAGRAMS — SENIOR EXECUTIVE DESKS

EACH STYLE SHOWN HERE IS AVAILABLE IN TWO TOP SIZES 36" x 72" AND 36" x 66"

REGULAR STYLES				EXTENDED STYLES WITH BACK ONLY DOUBLE DRAWER PEDESTAL		ONE END STYLES OPEN BACK ONLY				DOUBLE UNIT STYLES			
 <b>5022C</b> <small>36" x 72"</small>		 <b>5022W</b> <small>36" x 66"</small>		 <b>5027C</b> <small>36" x 72"</small>		 <b>5027W</b> <small>36" x 66"</small>		 <b>521C</b> <small>36" x 72"</small>		 <b>521W</b> <small>36" x 66"</small>		 <b>5022C</b> <small>36" x 72"</small>	
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ships the firm has had with its designers. All of its great designers have been good talkers, and enlightened men of vision. The freedom, however, did not come without its price. As D.J. De Pree puts it: "Freedom for the designer added greatly to his responsibility."

### Decentralized design

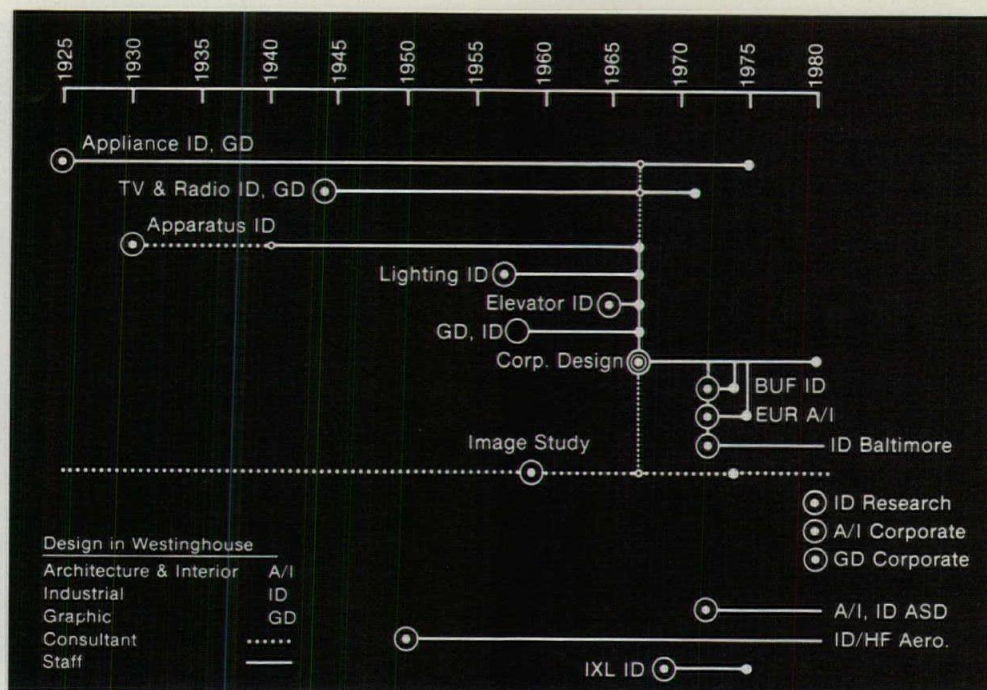
Manufacturing companies, like the people who own them, grow and age. When a company endures beyond the lifespan of its founder, it cherishes the accomplishments of the past, and tries to maintain its past qualities while forging new ones.

It was six weeks after Robert E. Lee surrendered at Appomattox and three weeks after his own nineteenth birthday that a young soldier named George Westinghouse obtained his first patent. On March 12, 1914, almost fifty years and 360 patents later, George Westinghouse died.

The son of a farm machinery manufacturer was born into the explosive and dynamic period of history where inventors of vision and courage laid the foundations for modern life and transformed their debts into fortunes overnight. Invention was equal in importance to the correct evaluation of the context created by the other inventions of the day.

George Westinghouse by chance discovered a magazine explaining the use of a compressed air drill used in Italy and recognized the opportunity to apply the technology to an air brake for locomotives. The invention which followed increased the safety of trains by allowing them to stop in shorter distances, and used only one man to replace the two-man braking chore. The air brakes were Westinghouse's first great success, at age 22. He continued to invent for the train industry but soon branched into the telephone industry, natural gas, and electrical power.

In the mid-1880s Westinghouse met Frenchman Lucien Gaulard, who along with an English engineer, John Dixon Gibbs, had invented a "secondary generator," later to be known as a transformer, which could effectively increase or decrease the voltage of alternating current. Westinghouse and his associates further developed the machinery to the point where they confidently organized the Westinghouse Electric Company in 1886. Six years later Westinghouse proved the importance of the concept by providing an inexpensive and reliable system for lighting the grounds of Chicago's Columbian Exposition. As a result he was commissioned to transform the potential energy of Niagara Falls into electricity.



A GRAPHIC HISTORY OF DESIGN AT WESTINGHOUSE

While he went on to pioneer the use of turbines in locomotives and ships, his company, Westinghouse Electric, later excelled in the manufacture of electrical appliances for the home, the electric elevator, and the first mass-produced x-ray machines. The company produced items as diverse as precast concrete homes and jet engines.

Today the multibillion-dollar Westinghouse Corporation manufactures 8000 products and employs 140,000 people. Some segments of the company would certainly surprise George Westinghouse. They don't make locomotives (or jet engines) any more. Nor does Westinghouse make home appliances or medical products.

Westinghouse does have a power systems company which continues the heritage of electrical generation and distribution. Their products most commonly known to architects (elevators, office furniture, transportation systems, and HVAC equipment) are all part of the construction sector of the public systems company along with defense and radar. There is still room left for the Westinghouse Broadcasting Company, the sole distribution of the Longines Watch Company, and the Westinghouse Learning Corporation.

The Westinghouse Corporation could accurately be described as a collection of independent companies. How does one control the product design of such a giant? What role does design play?

Industrial designers played a role in Westinghouse as early as 1925. It wasn't until 1959, however, that a large scale concern for design emerged. A study by

Ketchum, MacLeod and Grove, commissioned by Westinghouse, yielded the opinion that the company as a whole had a negative overall design image. Concern mounted in the following years and finally culminated in 1967 with the Westinghouse Corporate Design Center. For once, all of the design-oriented functions of the company were consolidated. The graphic designers, industrial designers, and architectural and interior designers were under the same roof. Eliot Noyes, Paul Rand, Serge Chermayeff, and other top designers of the day were frequently consultants. By corporate decree, products costing over a certain dollar amount were compelled to use the services of the center. A commonality of graphic design united all of the divisions. Various division personnel interacted with the designers, learned their vocabulary, and recognized their values.

The program was not without flaws. At times designers intimidated the engineers and corporate decision makers. The early system of free design services was replaced by an accounting system where the in-company "clients" "paid" for services rendered. The design success rate improved with pay. Nevertheless, over time, doubts arose about the financial credibility of the project. A realignment of the corporation in the mid-1970s eventually led to the demise of the Corporate Design Center in March of 1980. The graphic designers became part of Corporate Communications. The architectural and interiors people went to the traffic and real estate division, and the industrial designers went to research and development.

Designers who have outlasted the decentralization feel some nostalgia for the heyday of the Corporate Design Center.



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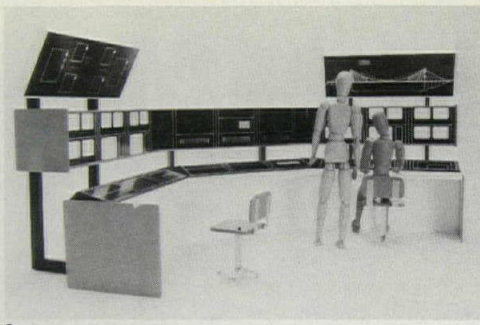
The chart on the opposite page traces the influence of formalized design at Westinghouse. The Corporate Design Center was disbanded earlier this year. 1 The switch eloquently displays the importance of design at any scale. 2, 3 A control panel in model and reality. 4, 5 An X-ray machine before and after Westinghouse industrial design.

They realize that the strong central emphasis has served to educate many division people and their services will continue to be used but without the formal design emphasis. The designers must work to justify their existence and even publicize their presence. The realignment also allows the designers more intimate relationships with the particular divisions in which they have been assigned. Of greatest importance, in the midst of a huge corporate structure and the cushion that years of association with a single company brings, they are tasting the vitality that comes from risk, and the fight for their design lives.

#### A good mix of activity

"Roy Grumman physically dragged the first piece of business into—or half into—the shop. A wrecked Loenig amphibian, purchased from an insurance company, was towed from New York City all the way to Baldwin, Long Island, behind Grumman's Hudson Super Six. Only half of it would fit through the garage door. A passing motorist ran into the half that stuck out into the street. Facing a lawsuit that would have bankrupted the concern before it got started, an emergency automobile repair shop became the top corporate priority. The motorist drove away happy, and work on the Loenig wreck was finished. The plane they'd bought for \$400 eventually was sold for \$20,000."

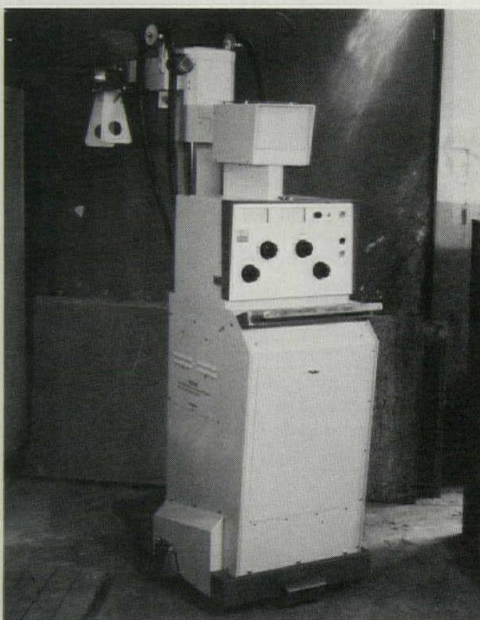
The above is reprinted from the 50 year history of the Grumman Corporation published earlier this year. It well



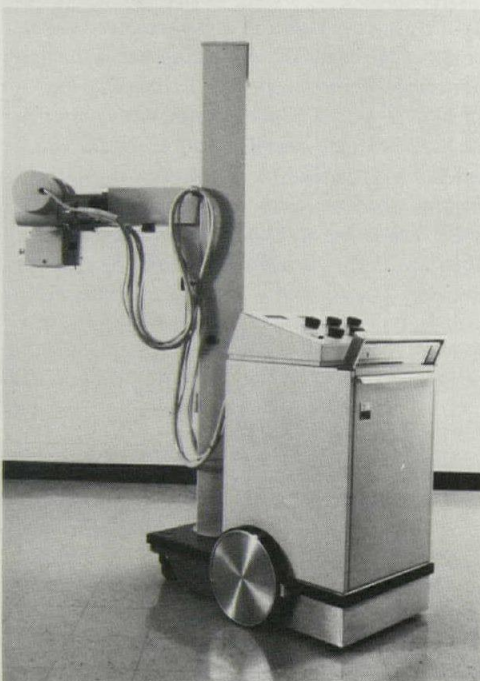
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portrays the kind of risk and profit that is possible in the aerospace industry. As Grumman President Joseph G. Gavin, Jr. explains: "When you have spent 50 years defying gravity it causes you to look at things differently." Of course architects and engineers defy gravity in their own way; how is aerospace different? "The consequences of a mistake in aerospace are frequently fatal. There is a completely different standard of risk-taking. The analytical and test procedures are more sophisticated. The aerospace technical capability is also honed by competition and an overwhelming motivation for success."

By maintaining government contracts with the military, Grumman also guarantees that it stays in the forefront of the technology. A commercial endeavor has only the market and the laws of nature to contend with. A fighter or missile must also confront an enemy mind which is trying to undo all that has been designed.

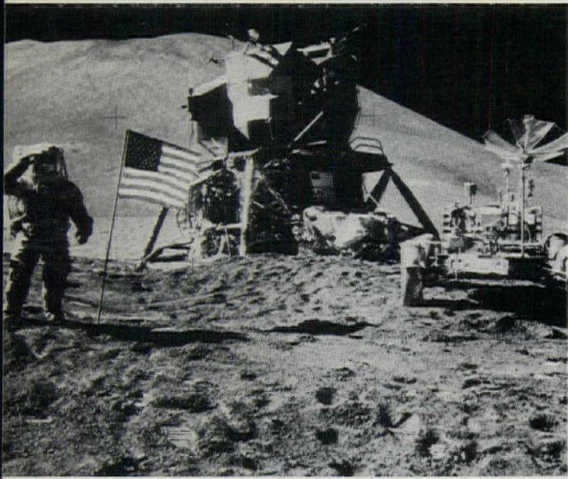
In periods of tight military budgets, good innovative design often has an enemy in life cycle cost analysis. As Gavin explains: "Predicting the life cycle cost accurately suggests that you are not being very adventurous. And if the new product does not make a significant step, it probably isn't worth it." In the early 1970s Grumman absorbed a \$250 million loss surrounding the early stages of the creation of the F-14 fighter plane. A company with this kind of resiliency and which employs 28,000 people has had major success over the last 50 years.

To stay afloat in the early years of military airplane design, Grumman built aluminum truck bodies. They still build them today. Their first Navy airplane contract finally came through in 1931 for the first fighter with retractable landing gear, the XFF-1, "Fifi."

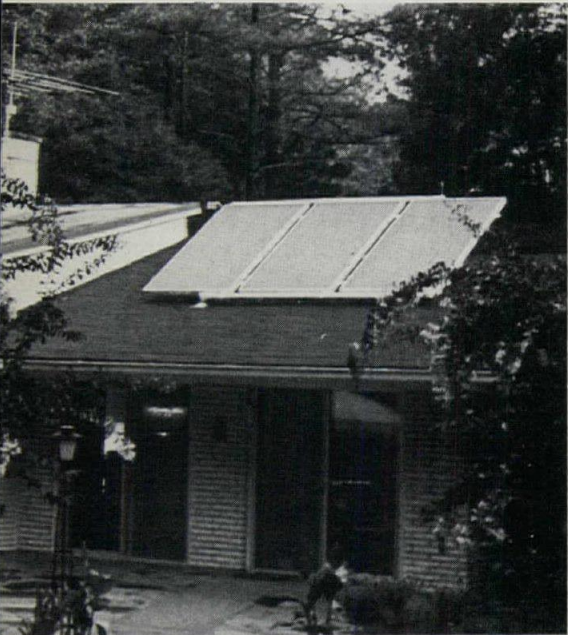
The company continued to pioneer in new areas of development. Their early work on pontoon design and their Loenig repair led to amphibious aircraft. Their string of warplanes for World War II inspired Vice Admiral John S. McCain to proclaim: "The name Grumman is like sterling on silver." As the war was ending, the company used its aluminum presses to manufacture the first Grumman canoes.

After the war the airplane industry was transformed into the jet age, and Grumman kept pace with warplane design, as well as planes equipped with complex electronic surveillance equipment. At the same time as the company was breaking speed records with its fighters, it was dropping lower to the ground with a plane expressly designed for crop dusting. In the late 1950s it also developed a civilian corporate jet.

Of course Grumman's crowning achievement of the 1960s and early 1970s was the completion of the contract to create the Project Apollo Lunar



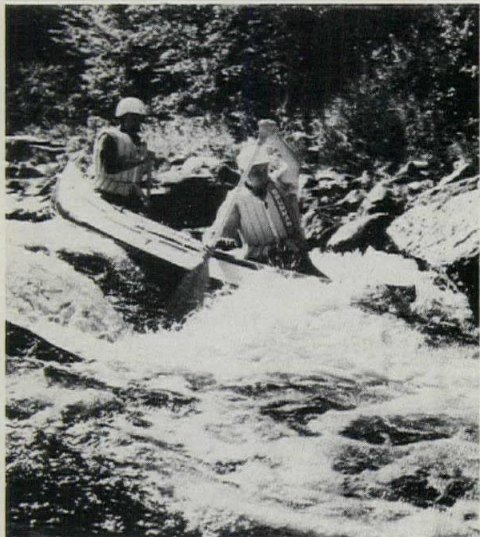
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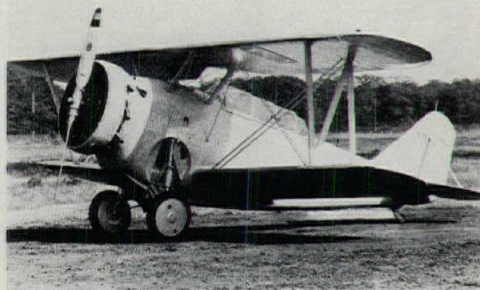
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1 Grumman's crowning achievement was the Apollo Lunar Module. 2 The modest beginnings of the company are displayed in the first Grumman military airplane contract, the XFF-1 "Fifi." 3 Since Apollo, the company has applied its technology on earth in solar collectors. It maintains its interest in the air, on land and sea with such products as 4 the E-2C Hawkeye electronic surveillance airplane, 5 the Grumman Flexible Bus, 6 the Pearson Yacht, and 7 the trusty Grumman canoe.

Module. About this time the Grumman Aircraft Engineering Corporation became the Grumman Corporation.

In the late 1970s the new corporation became involved in technologies as diverse as solar energy, wind energy, the conversion of garbage into steam, and nuclear fusion technology. It acquired a petroleum equipment company, a bus manufacturing company, and Pearson Yachts.

Many times the only continuity between the various product types is the name on the side and the Grumman commitment to what they call "a mature first-class product." In spite of its size, however, very little of the Grumman product line could be categorized as mass production. Says Gavin: "We don't get excited about the canoe business; we are in the canoe business because we are in the canoe business. The canoe is part of our reputation, from an image point of view."

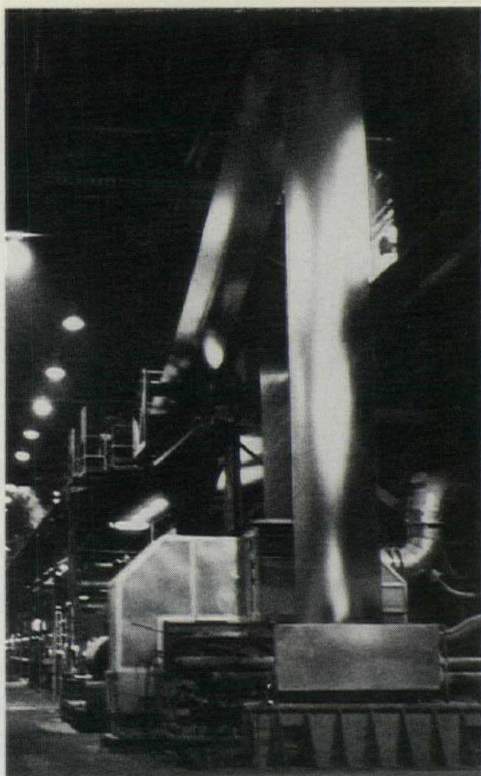
When there aren't any wars to fight and no moons to land on, an aerospace company starts to fidget. Like an architectural firm, in lean times it is a problem solver looking for a problem. Gavin explains: "We are keenly aware of the response to a mission requirement. We are searching for a mission in which we are qualified to get involved. Many times land-based technology is as good as aerospace technology. An aerospace company doesn't always know how to turn off its sophistication in another field."

In spite of its size and decision-making expertise, ideas for product development at Grumman are not a "neatly fenced off responsibility." Says Gavin, "The interpersonal relationship is as important as the formal structure." Ideas are hard to plan in advance. "Many ideas start in the depths of the organization. Decisions involving risk are made at all levels of the organization. The sooner you find an error, the better off you are. You must make it known that the bearer of bad tidings will not get slain."

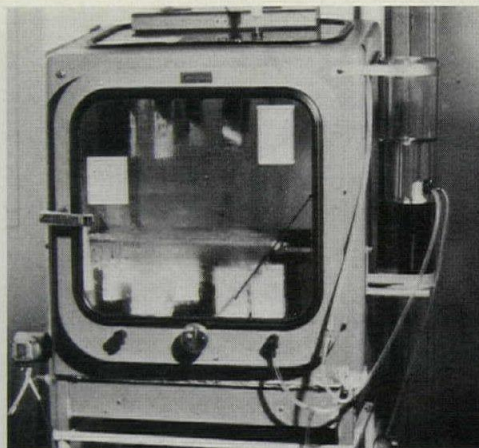
A large new product line must, of course, eventually have the enthusiasm of at least one management official. That product will then be the result of "vigorous communication." At Grumman there is not much faith in market surveys. Says Gavin, "We don't know whether to believe the answers." It is, therefore, the role of the corporate decisionmaker to ask himself daily: "Where is the present mix of activities going?"

#### A constant state of change

The imaginative young Canadian did not invent asbestos-protected metal (APM), but in 1906 he obtained the patent for it, along with sufficient knowledge for its manufacture. Within a short time, Harold Hansard



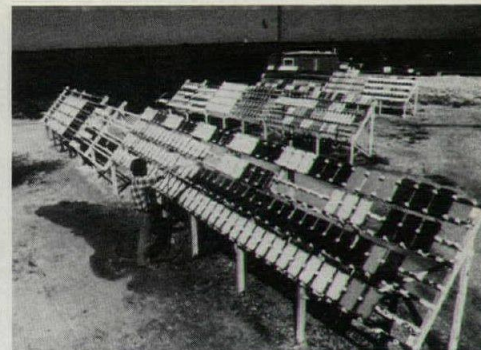
*Galvanizing sheet metal in the factory.*



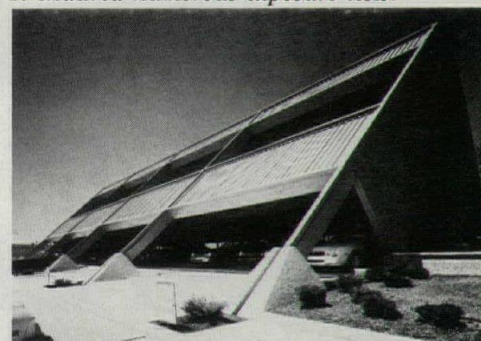
*Versacor originated in the laboratory.*



*The product is installed by workmen.*



*It endured numerous exposure tests.*



*H.H. Robertson demonstrates the kind of horizontal integration that can occur within a single international company.*

Robertson had moved out of the abandoned silk mill in Canton, Massachusetts, and into his second factory closer to Pittsburgh (the source of his raw materials and his large clients). With his natural gift for selling, his profits improved, and he changed the product name to Robertson Protected Metal (RPM).

Protected metal is still the backbone of the international corporation that bears its founder's name, H.H. Robertson. The H.H. Robertson product line progressed from walls to roofs, to roof ventilators and power roof ventilators. The company eventually adapted their supply of corrugated metal to the electrified cellular floor. The protected metal has evolved from a corrugated iron product with bitumen-adhered asbestos felt to a more durable version called Galbestos in the 1930s. The new product replaced some of the bitumen content of RPM with zinc. The plants for the H.H. Robertson products exist in areas as diverse as Australia, Holland, Norway, England, South Africa, Brazil, and Mexico.

Just as Grumman is able to manufacture products for vastly different scales of transportation, H.H. Robertson is impressive in its ability to integrate all of the procedures necessary to take a new product from a test tube to the surface of a building halfway around the world, and back. Its newest protective metal, Versacor, is a good example.

In 1965, Robertson Nordisk A/S, the Norwegian subsidiary of H.H. Robertson, came to the Pittsburgh home office with a problem. Sheet metal

products were not standing up to the extreme natural and industrial climate in Scandinavia. Samples of the severe corrosive attack were brought to Pittsburgh where the chemists in the laboratory matched the problem with an innovative new coating.

The galvanized steel sheets already used for Galbestos were coated with a thin protective layer of flexible epoxy polyamide instead of asbestos. The epoxy was then protected from the ultraviolet rays of the sun by a specially modified polyester hot-melt resin or alternatively a 50 percent silicone-modified polyester. This top layer includes color pigmentation.

Accelerated weathering tests were then conducted to approximate a 20 year usage. Of course such a coating is worthless if it cannot be conventionally factory formed. Therefore, form testing was accomplished in the Pittsburgh factory. The new material, Versacor, was tested in place in Norway.

Robertson researchers at home and in Norway closely monitored the performance results. While confronting growing concern over the use of asbestos in this country, the older Galbestos product does not perform well in the horizontal shear necessary for composite sandwich panels. Most important, the acidity of the rain and the resulting corrosion of the metal on our buildings has accelerated in recent years.

In conjunction with the European testing of the material, the company drew upon the expertise of its material installers to evaluate installation problems, and architectural representatives to evaluate sales potential. The construction expertise along with the ready sounding board for the new ideas gave

Robertson confidence that their new material would do well in the United States. In 1979 production of Versacor began in Pittsburgh on a full scale.

H.H. Robertson employs chemists, engineers, installers, factory technicians, and marketing and sales people, but no "designers." They make the protected metal "cloth," not the "suit." The visual part of the team is literally the architect. Each job begins with the selection of the details needed for the junctions of the material and its color and texture. For example, when Robertson originated the colors for their Galbestos products in the 1950s, they took them directly to the architects. New suggestions were made so that now it is possible to completely customize the color designed to the specification of the architect. New ideas generally do not mean new products, per se; they are new applications of the same product. There is no stock of products. They are all created from stock rolls of sheet metal.

The laboratory and research capability of Robertson offer a constant support activity. Communication among research, manufacturing, installation, and marketing is vital. The reason is simple. Once a product reaches the stage of being a mass-producible commodity, companies as small as Robertson will be beaten by larger companies. A constant effort must be made to improve the quality, uniqueness, and cost of the material. Very simply, custom products can't stand still. [Richard Rush]

Design flexibility and good engineering have been major objectives in the development of Blum railing systems. Components of the several systems are interchangeable to offer the designer the widest possible selection of metal, acrylic/wood and plastic components. Examples shown here illustrate the variety achieved by designers and executed through the ability of metal fabricators.

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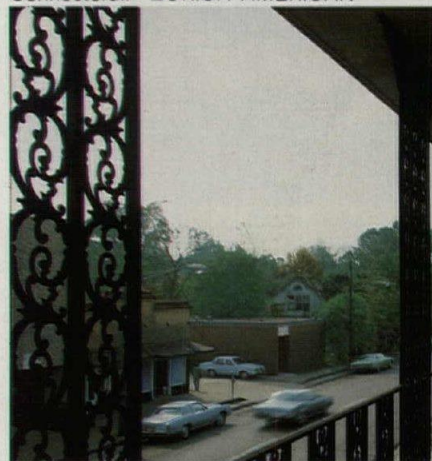
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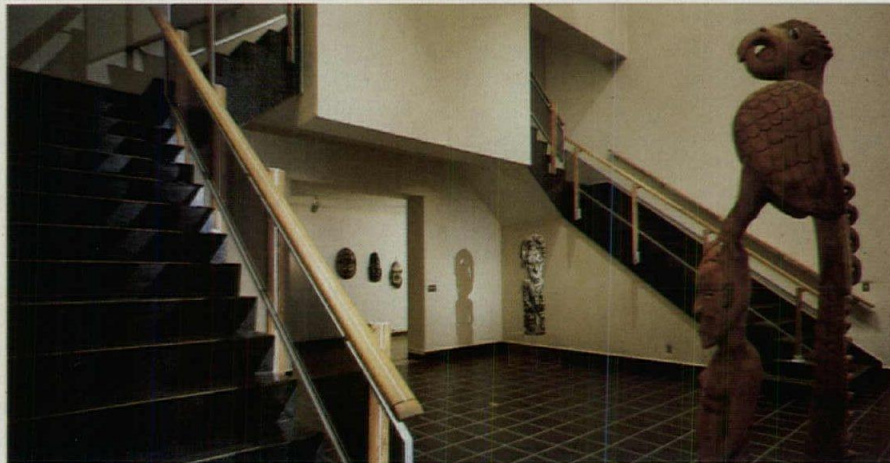
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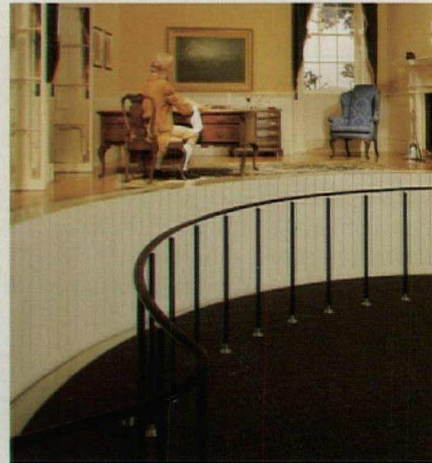
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Arch: Bank Bldg. Equip. Corp. of America;  
Fabr: United Steel Co.

SPOKANE STORY, Spokane, Washington—  
Designer: Zentis Design.

BIRMINGHAM MUSEUM OF ART,  
Birmingham, Alabama—  
Arch: Warren Knight & Davis Inc.;  
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# The dissolved partnership: What is its liability

Norman Coplan

Suits arising from work performed by a partnership in the name of one partner can be the responsibility of the firm, even if the partnership has been dissolved.

The partnership as a business entity for the practice of architecture continues to be commonly utilized. Questions often arise, however, as to the obligations of former partners after they have withdrawn from the firm, or the partnership has been dissolved. The United States District Court for the Southern District of New York recently was called upon to consider the liability of former partners of an architectural partnership which had been dissolved, in a situation where one partner sought a proportionate reimbursement from his other partners for expenses incurred by him, and for his contribution to the settlement of a claim asserted against him arising from partnership business (*Seiler v. Nakrosis and Kerner*, 78 Civ. 4904).

The plaintiff in this case (Seiler) and the defendants had formed a partnership in 1966 for the purpose of engaging in architectural and engineering work. In 1968, the firm had an opportunity to provide architectural and engineering services for the design of a store in Delaware. The partnership was not licensed to practice in Delaware, but Seiler had obtained a personal license in that state, and consequently the contract was taken and the work performed in Seiler's name. All payments for such architectural and engineering services were deposited in the partnership account, and the project was considered a partnership business activity.

The store opened for business in 1969 and the partnership dissolved shortly thereafter. In 1970, flood waters from a nearby creek entered the basement of the store and caused extensive damage to the inventory stored therein. The store owner instituted an action in Delaware against Seiler to recover damages. The partnership was not named in the suit. Later, in 1971, a second flood occurred causing additional damage, and the complaint was amended to seek damages of over \$3 million. Since the amount of the suit was substantially in excess of the malpractice insurance that had been carried by the partnership, Seiler retained personal counsel in addition to the counsel who represented the partnership's insurance carrier. In a decision in 1975, the Court found that Seiler was negligent in performing the architectural and engineering services for the store. The issue of damages was left for a separate trial. Seiler took an appeal from this decision, and feeling that the attorney representing the insurance carrier, because of inexperience, was inadequate to represent him on appeal, retained additional outside counsel to handle the appeal. The Appellate Court remanded the issue of Seiler's liability back to the trial court, and Seiler then authorized his outside personal counsel to continue his representation in trial court proceedings.

During the pendency of the litigation, Seiler was concerned that his insurance carrier might have a conflict of interest, as it not only insured him, but was connected

with the subrogated insurer of the store owner. It was recommended that a separate suit be instituted against those insurance carriers, apparently in the hope that this would result in a settlement of the action instituted by the store owner. In 1977, Seiler retained a well-known New York law firm to commence such litigation, and as a consequence of this action, the suit by the store owner was settled with the insurer paying \$1,090,000 and Seiler \$60,000.

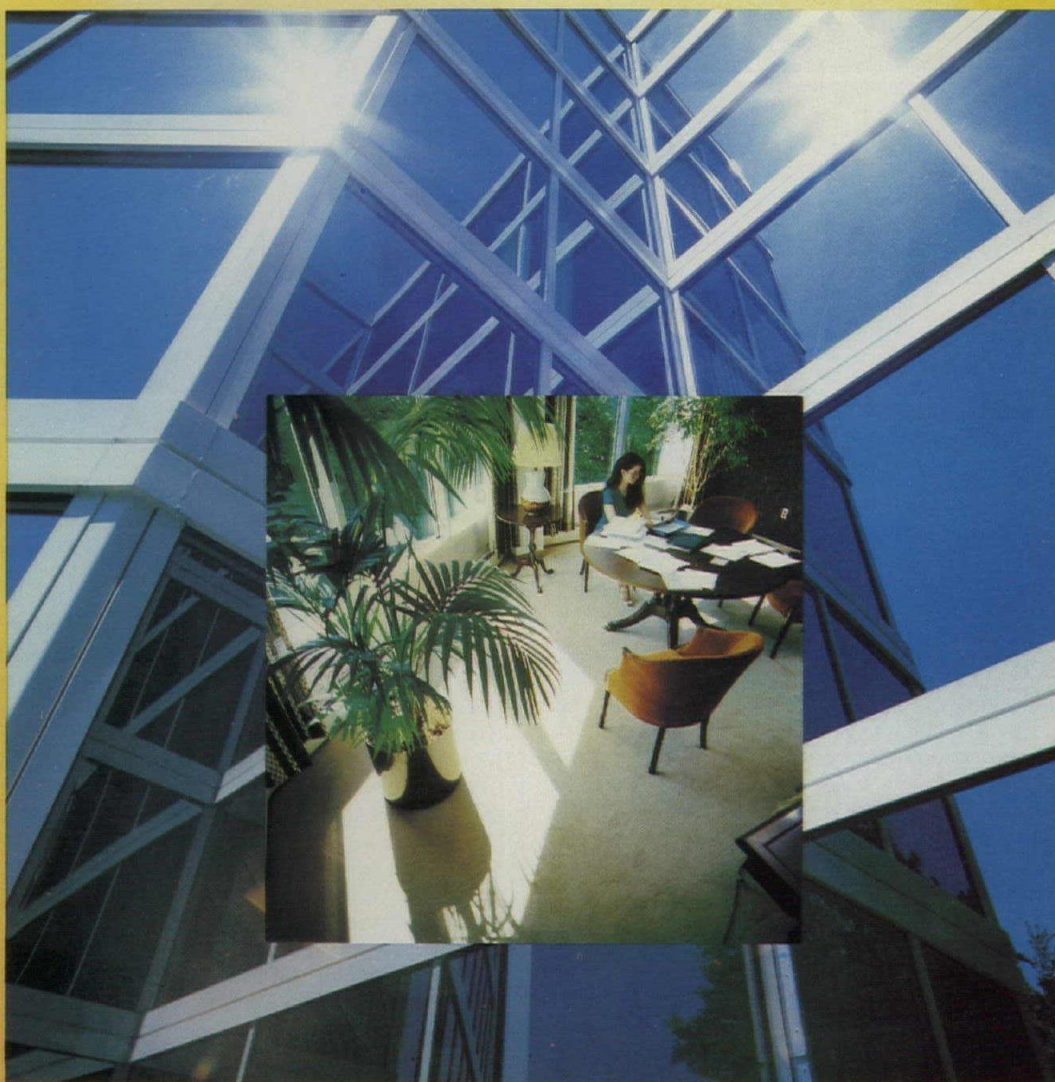
Seiler then wrote to his former partners requesting that they reimburse a proportionate share of the \$60,000 which he was required to contribute to the settlement, and to reimburse him proportionately for the legal fees incurred. His former partners refused to make such contribution. Seiler then instituted suit to recover such monies. The Federal Court ruled that the defendants were liable for their proportionate share of all the payments Seiler had made in defense and settlement of the action instituted against him by the store owner, including the fees paid to outside counsel to institute suit against the insurance carriers. It stated:

*"When a tort such as negligence is committed by a partnership or one of its members acting on its behalf, the wrong is imputable to all the partners jointly and severally, and an action may be brought against all or any of them in their individual capacities . . . or against the partnership as an entity." The fact that a partnership has been terminated after the tort occurred does not discharge the existing liability of any partner . . . . Finally, if one partner is sued alone for a wrong that arose as a result of his conduct in the reasonable operation of his partnership's business, and that partner makes payments in satisfaction of any liability arising thereunder, he is entitled to indemnity from his other partners to the extent of their share in the partnership."*

The defendants further contended that Seiler's legal expenses far exceeded those that might be incurred in the ordinary course of the partnership business, and that Seiler had no authority to incur such liability on behalf of the partnership. The defendants particularly objected to the legal expenses involved in the suit instituted against the insurance carriers. In rejecting this contention, the Court said:

*"The defense and settlement of a lawsuit which arose out of tort committed by the partnership is certainly within the ordinary course of a partnership's business . . . . Seiler's retention of the Gordon-Hurwitz firm (the New York firm) also appears reasonable and justified. The action commenced against the insurance carriers was . . . a sound tactic and provided a significant added inducement for the subrogated insurer for the (store owner) to settle." □*

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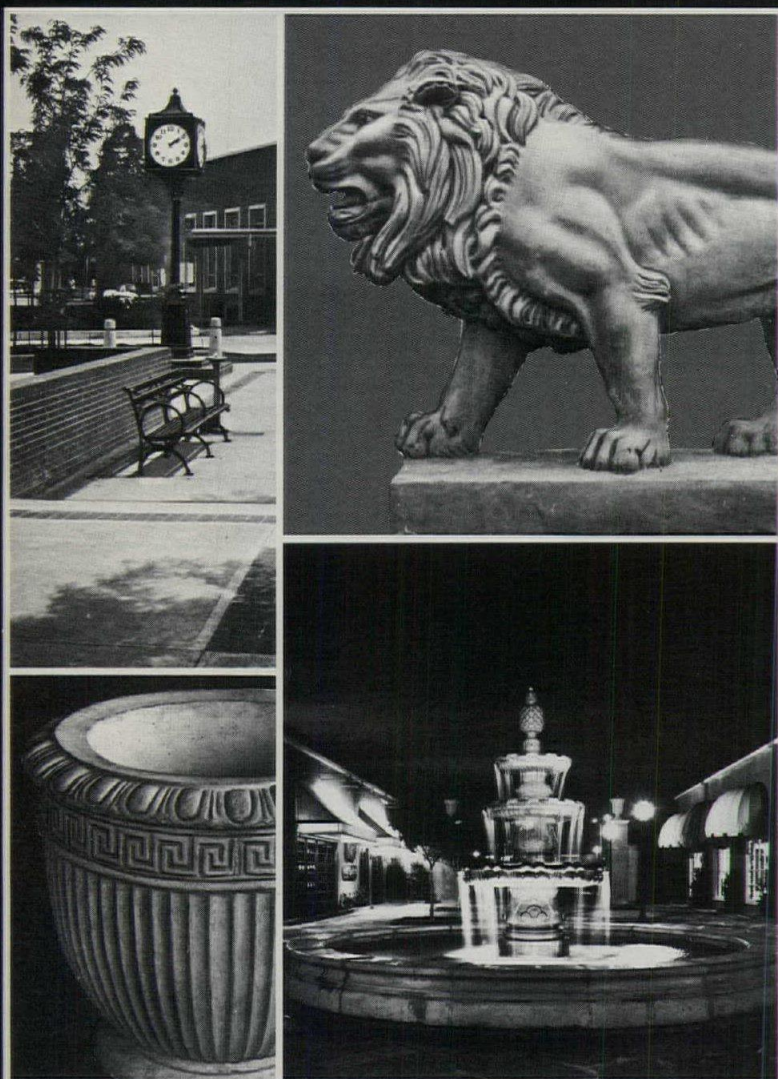
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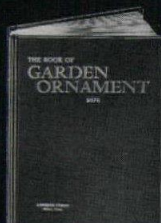
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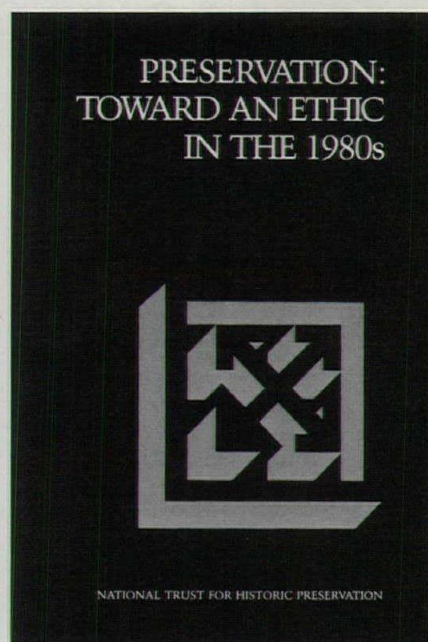
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# On reuse

## Books



**Preservation: Toward an Ethic in the 1980s.** *The National Trust for Historic Preservation, The Preservation Press. Washington, D.C., 1980, 248 pp., \$8.95.*

This book presents the recommended goals of the National Preservation Conference held in Williamsburg in 1979, and it also includes papers from the Future Directions Symposia of the National Trust held in Chicago in 1978. The book addresses such subjects as where preservation is heading and where it should go. In presenting the discussions of the leading preservationists at the meetings, the book outlines the goals they established as well as the means for achieving them in such areas as objectives, roles, and organizational structure; standards and practices; avocational versus vocational involvement; education; communications; information resources; funding; and legislation. Specific concerns addressed include the economics of preservation, neighborhood conservation, criticisms of preservation, endangered building types, a national legislative agenda, communicating the preservation message, and public policies toward preservation.

**Old and New Architecture: Design Relationship.** *The National Trust for Historic Preservation, The Preservation Press. Washington, D.C., 1980, 280 pp., 435 illus., \$25.00.*

What relationship should new architecture bear to old architecture? Should new buildings mirror, or be in stark contrast to, historic buildings? Can formulas quantify desirable relationships between old and new? Are imitation and replication acceptable? Can design controls be properly administered by local design review boards? These are some of the questions discussed in this book, often with contrasting viewpoints, by 20 of the country's leading architects and preservationists. Topics addressed include the history and theory of design relationships, the legality of architectural controls, historic districts, design guidelines, adaptive use, and public and pro-

[Books continued on page 140]



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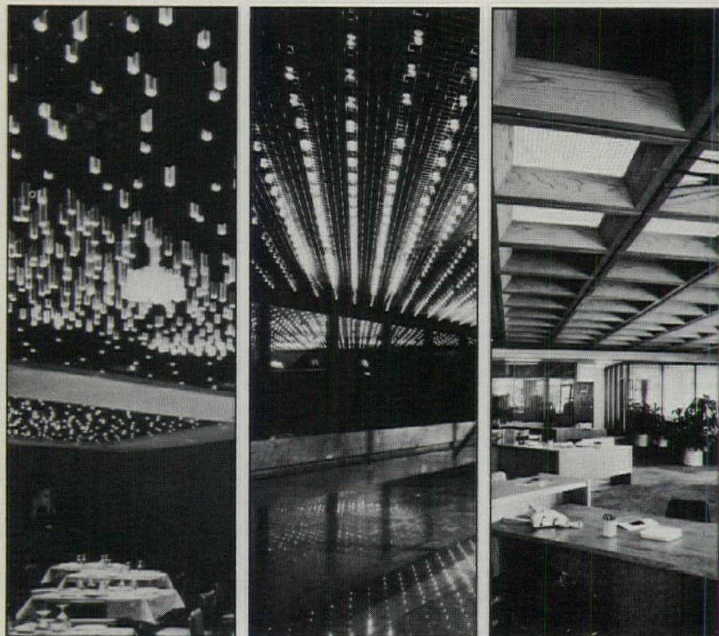
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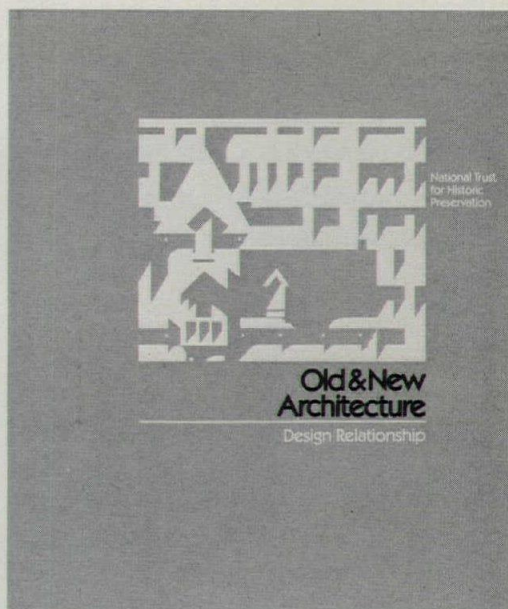
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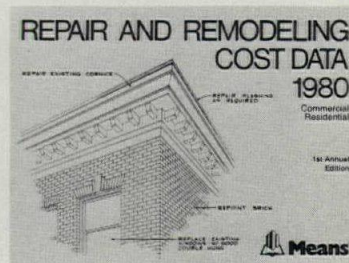
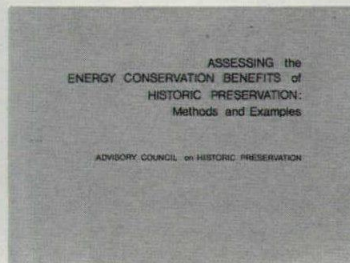
Books continued from page 138



fessional education. Among the contributors to the volume are Peter Blake, Michael Graves, Louis Sauer, Jean Paul Carlhian, Giorgio Cavaglieri, and James Stewart Polshek. Types of works considered include a whole range of residential, commercial, and public projects.

**Assessing the Energy Conservation Benefits of Historic Preservation: Methods and Examples**, prepared for the Advisory Council on Historic Preservation by Booz-Allen & Hamilton Inc. Available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 1979, 91 pp., \$2.75.

This important new study proves that restoring old buildings saves energy by showing that it takes more energy to construct a new building than to rehabilitate an existing one. The book uses a new method to measure the energy investment in rehabilitation and new construction, providing formulas to determine the Btu's needed to do the work. Three case studies are documented to calculate the energy differences between the two attitudes, and in each instance rehabilitation showed significant savings over new construction. In one case, a hotel of 1899 was restored as an office complex in 1972 at a cost of 17 billion Btu's. A comparable new building constructed of new materials would have required 109 billion Btu's—85 billion to make the materials needed and 24 billion to put them into place. The energy saved in this instance was enough to heat and cool the building for 15 years.

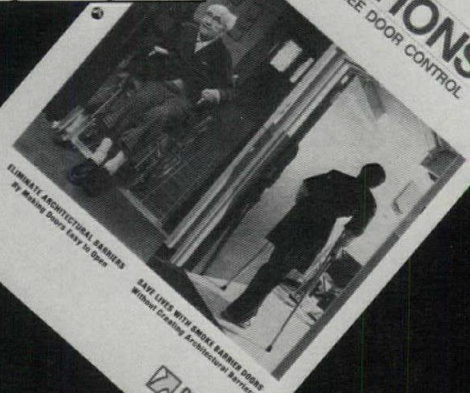


**Repair and Remodeling Cost Data of 1980**, by the Robert Snow Means Company. Kingston, Mass., 1980, 312 pp., \$32.00.

This unit price and building systems cost guide is designed for estimating costs involved in the reuse and renovation of existing structures. Its uses cover assembling early stage estimates as well as composing final comprehensive bids. The types of projects considered range from small-scale residential remodeling work to major commercial renovation projects. The resource contains 8000 unit prices plus building systems costs. A group of over 125 of the most widely used repair and remodeling systems have been selected as the basis

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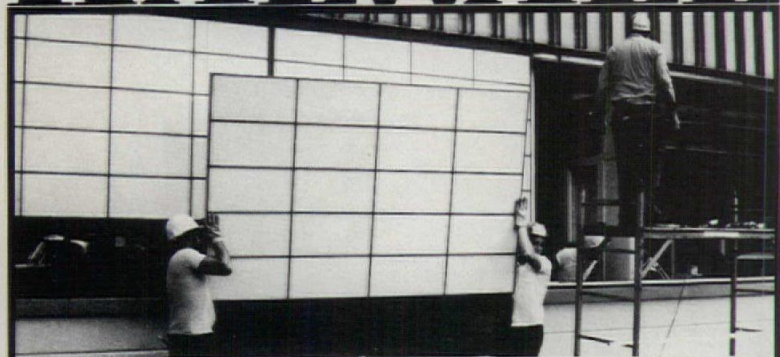
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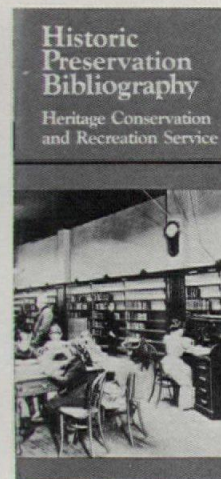
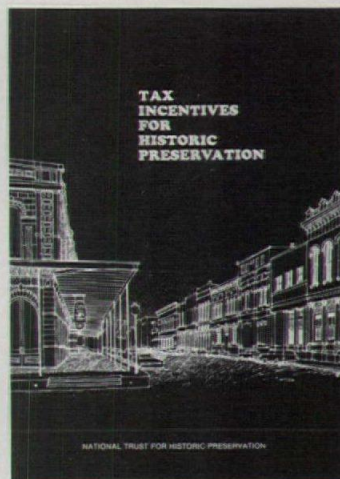
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Books continued from page 140

for the volume's illustrated systems section. The book focuses on labor cost variables based on average union wage rates, manhour output, and factorable productivity, plus other necessary variations. Also available are city cost modifiers for 162 U.S. and Canadian metro-regions for calculating costs on a division-by-division basis for any locality.



**Tax Incentives for Historic Preservation**, edited by Gregory E. Andrews. *The National Trust for Historic Preservation, The Preservation Press, Washington, D.C. 1980, 220 pp., \$12.95.*

The Tax Reform Act of 1976 and investment tax credit provisions in the Revenue Act of 1978 were landmark changes that already have brought significant results including millions of dollars of rehabilitation in nearly every state. These incentives are examined in this book, together with other benefits available in numerous states and cities. Practical advice on how to take advantage of tax incentives is provided for developers, builders, property owners, tax attorneys, and preservationists. Where to go for information, examples of completed projects, cost and tax savings comparisons are all spelled out in detail. The book's contributors—leading preservationists and attorneys—also evaluate the effectiveness of available tax incentives and analyze the challenge facing preservationists in changing the power to tax into the power to save.

**Historic Preservation Bibliography**, compiled and edited by Robert E. Haynes for the Heritage Conservation and Recreation Service. Available from Superintendent of Documents, Washington, D.C., 1979, 28 pp., \$1.75.

This bibliography provides a guide to the various HCRS publications compiled to give technical assistance and guidance to states and localities for managing their cultural resources and for developing their historic preservation programs in compliance with historic preservation mandates. In addition, some publications listed provide the general public with information about American historic, architectural, and archaeological resources, and are intended to increase general awareness and encourage public concern for historic preservation.

**Directory of Private, Nonprofit Preservation Organizations: State & Local Levels.** *The National Trust for Historic Preservation, The Preservation Press, Washington, D.C., 1980, 136 pp., \$6.95.*

This first edition of the directory of local, state, and regional organizations active in preservation lists several thousand preservationists including local organizations and neighborhood associations, landmarks and historic district commissions, statewide preservation groups, historical societies, and allied organizations. The directory is arranged alphabetically by state and city, providing names of organizations and complete mailing addresses, and covers all states and US territories.

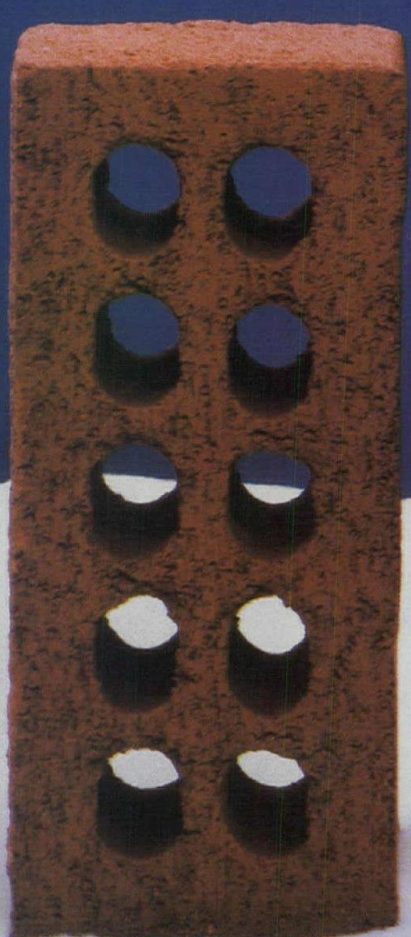


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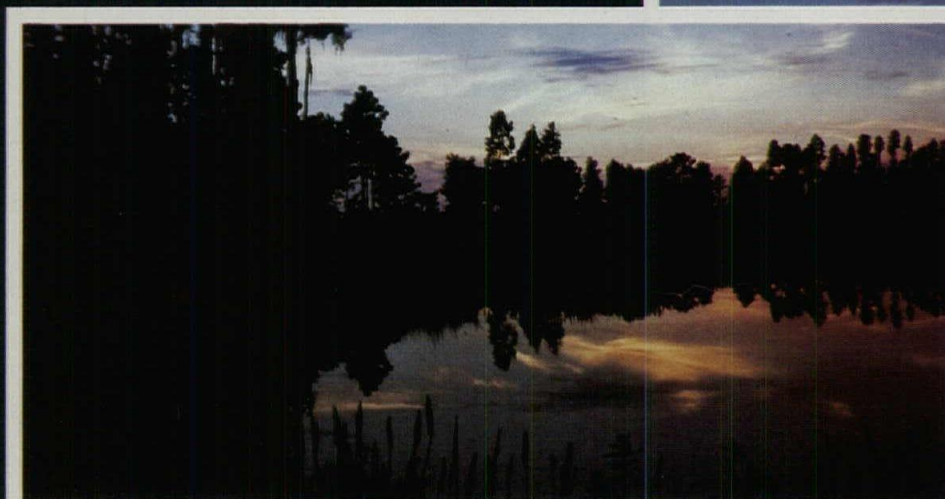
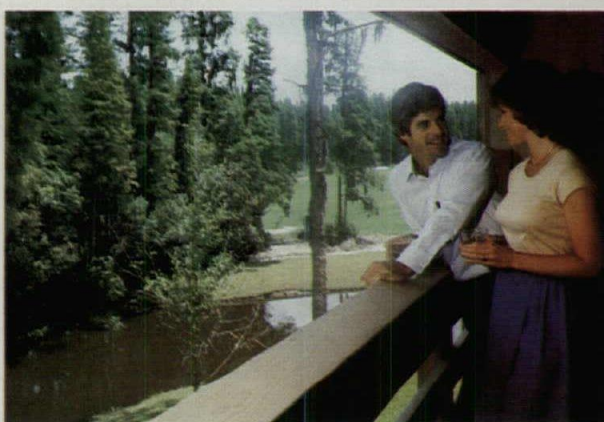
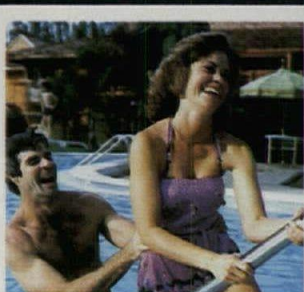
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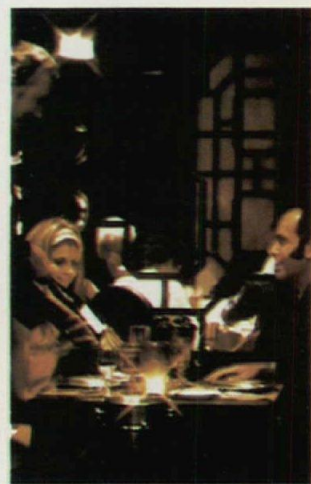
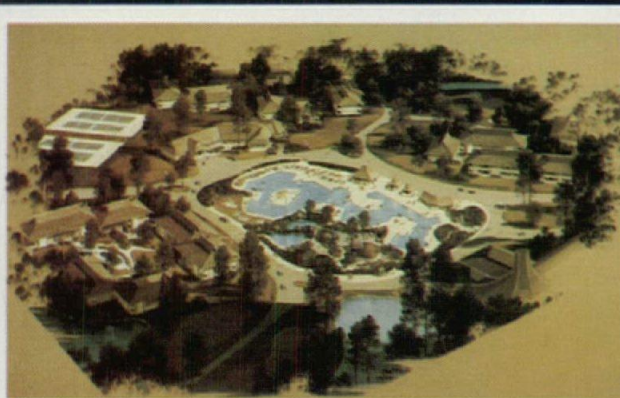
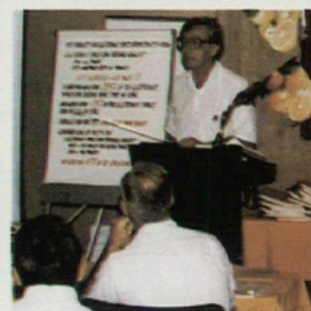
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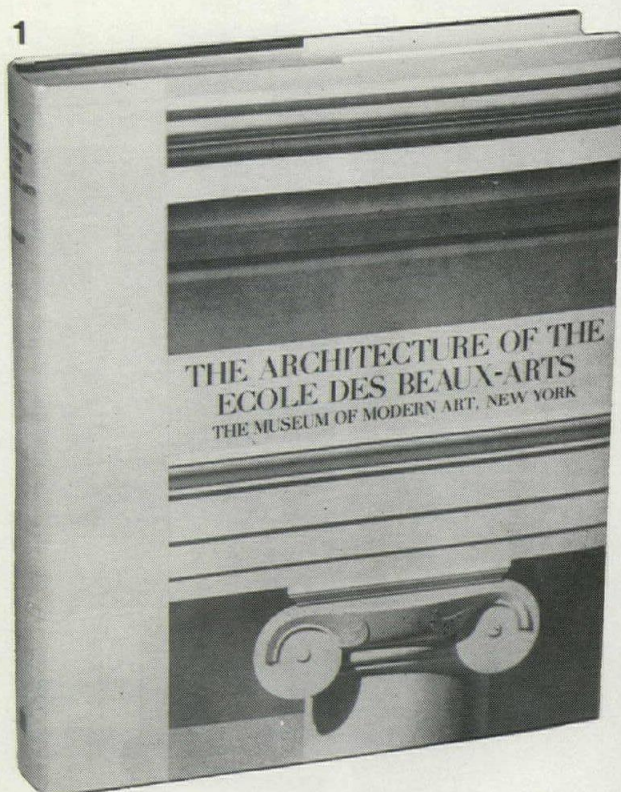


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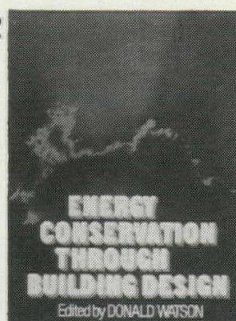
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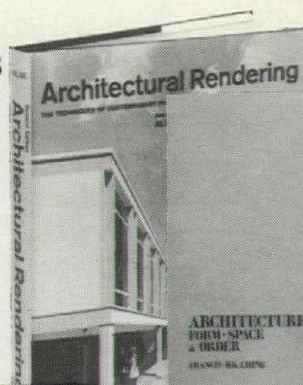
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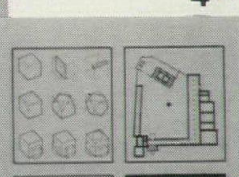
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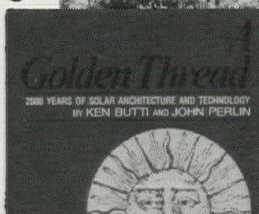
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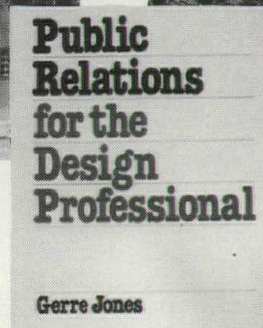
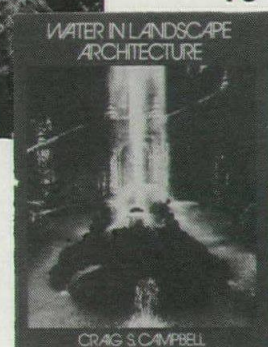


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Ten internationally known architects describe their concerns, both artistic and pragmatic, as they related to the process of designing and constructing one or more of their major buildings.  
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# 24 Rendering With Pen and Ink

By Robert W. Gill,  
368 pp., illus. . . \$12.95

This paper-back edition is a copiously illustrated guide to the techniques and methods of rendering, including sections on perspective, projection, shadow, reflections, and how to draw cars, ships, aircraft, trees, and human figures. The author also describes the very wide range of instruments and equipment currently in use.  
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## NEW★

# 25 Integrated Space Systems Vocabulary for Room Language

By A. Pressman & P. Pressman,  
116 pp., illus. . . \$16.95

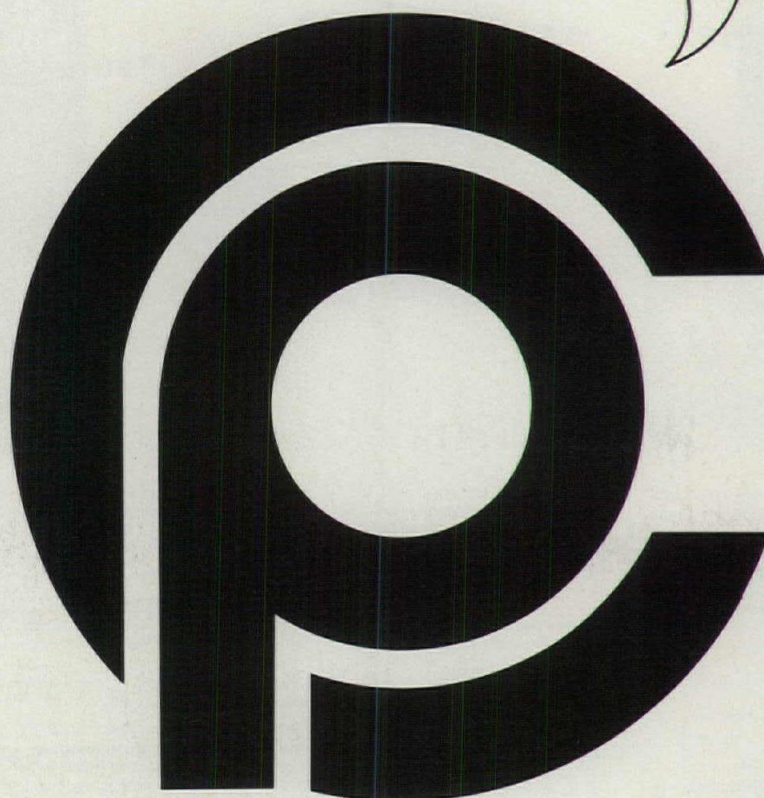
This unique volume describes the theory and practices of integrated space systems, a novel approach to home renovation that promotes the economical and humanistic use of space, without damage to the existing structure.  
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# 26 How to Recycle Buildings

By Laurence E. Reiner,  
244 pp., illus. . . \$19.95

The consensus of opinion by many authorities in the building industry is that recycling is here to stay and to expand. Here is an excellent reference on how to find, evaluate, survey, finance and market recycling projects profitably.  
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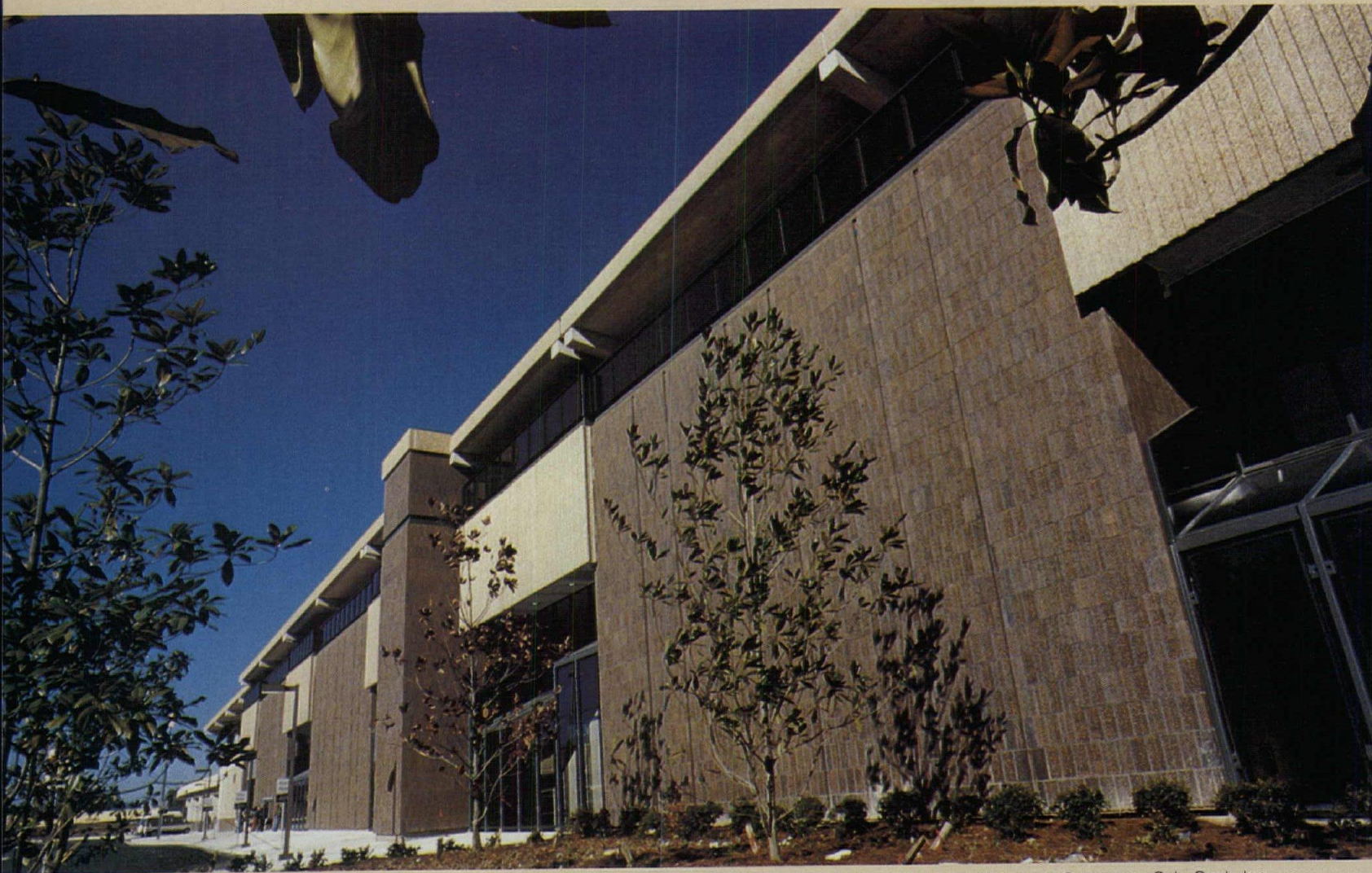


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PA500

# Stark Structural Facing Tile



Atlanta Hightower MARTA Station / Architects: Turner Associates / General Contractor: Bellamy Brothers / Masonry Contractor: C. L. Cook, Inc.

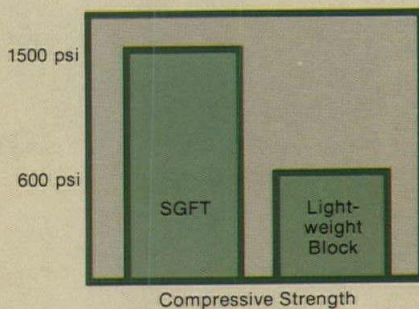
## The wall with the face that won't crack

Thermal expansion and moisture absorption make concrete block crack. But Stark structural textured tile, because of its dimensional stability, won't crack, rot or deteriorate.

With textured tile, the natural face and clay body are kiln-fired at over 2000° F. So the wall will keep its original color and texture, even in harsh environments.



Stark textured tile is strong, too. It can bear 2½ times the load of lightweight concrete block. This means you can design



longer roof spans without costly structural framing. The deep-relief, random texture offers attractive alternatives for exterior or interior design. Available in 8" x 8" and 8" x 16" sizes.

### Not just another pretty face

To accent durability with good looks in interior areas, specify Stark Structural Glazed

Facing Tile. Its kiln-fired, smooth face and body are one piece, not painted on and not plastic. So the wall won't peel, fade or discolor with age. Ideal for high traffic and abuse areas, Stark glazed facing tile is available in a variety of colors.



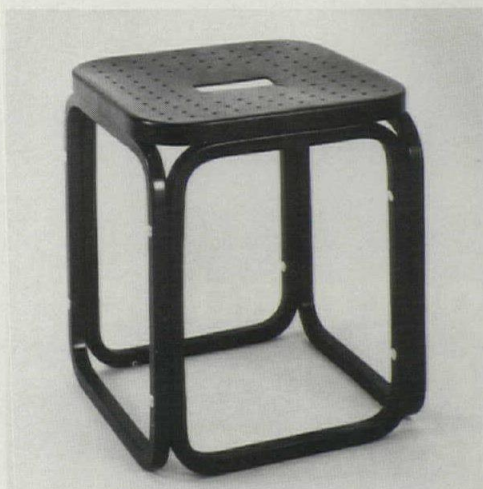
For new literature, write: Stark Ceramics, Inc., P.O. Box 8880, Canton, OH 44711. Or call toll free: 1-800-321-0662. In Ohio, call collect: 216-488-1211.



# Products and literature

The following items are related to the theme of this issue, restoration and reuse. They are grouped here for the convenience of the reader.

## Products



**Austrian Postal Savings Bank Stool**, designed by Viennese architect Otto Wagner and first produced in 1904, is being revived. Legs are  $\frac{7}{8}$ -in. squares of steam-bent American elm with aluminum detailing caps. Seats are  $\frac{7}{8}$ -in. perforated elm veneer molded plywood. The stool is  $16\frac{1}{4}$ " x  $16\frac{1}{4}$ " x  $18\frac{1}{2}$ " high and has a  $16\frac{1}{4}$ " x  $16\frac{1}{4}$ " seat. Thonet.  
*Circle 100 on reader service card*

**Decadex Firecheck** is a protective coating that not only provides a flame-resistant surface, but also can be used to encapsulate asbestos insulation. The coating, 16 times the thickness of paint, provides a seamless, impermeable plastic membrane over asbestos. According to the manufacturer, it is impervious to chemicals and ultraviolet light and cures to a water-resistant surface that can be cleaned easily. Pentagon Plastics Ltd.  
*Circle 101 on reader service card*

**Form-A-Gage profile gage** can be used to copy accurately contours as deep as  $2\frac{3}{4}$  in. A magnetic suspension system and individually tracked rods ensure that the gage conforms to the contour. It can be locked in position for as long as it is needed. Preservation Resources Group, Inc.  
*Circle 102 on reader service card*

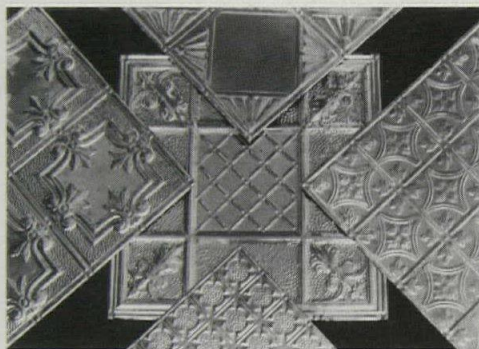
**Americana series chandeliers** of solid brass have curved arms that end in white candle lights. The five styles range

in size from a 12-light, two-tier model, 42 in. in diameter, to a 5-light, 25-in. diameter model. One has 8 lights and clear hurricane shades. Progress Lighting, Subs. of Walter Kidde & Co., Inc.  
*Circle 103 on reader service card*

**Sure Klean** products come in several formulations to suit specific applications related to restoration work, from heavy-duty formulations to a Marble Poulter to be used in hand-cleaning marble pillars, sculptures, and fireplaces. ProSoCo, Inc.  
*Circle 104 on reader service card*

## Literature

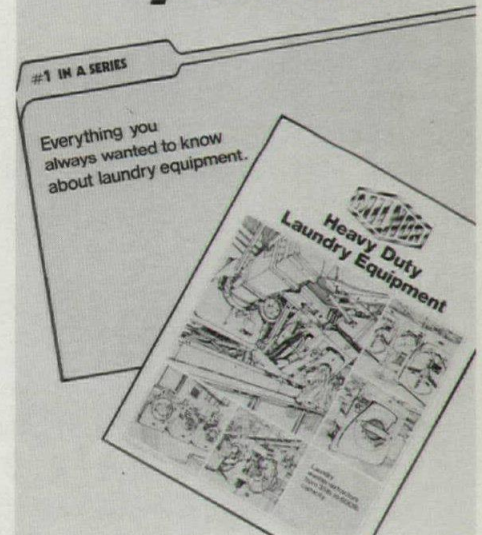
**Hi-Art Steel Ceilings**, made from 80-year-old original dies, include a complete line of center, corner, border, cornice and mold plates, and other pieces. The product can be used on walls or ceilings. Design styles available are Greek, Colonial, Rococo, Empire, Gothic, and Oriental. For an illustrated catalog, send \$3 to W.F. Norman Corp., 214 N. Cedar, Nevada, Mo 64779.



**Zinc-plated ceiling** catalog shows sheets pressed from original dies, with 6-in., 1-ft, and 2-ft designs. They have a bright silvery finish that can be treated with clear lacquer, painted with oil-base paint, or left uncoated. Sheets are 2' x 8'. Chelsea Decorative Metal Co.  
*Circle 200 on reader service card*

**Etched glass**, finely detailed with photo silk screen methods and chemical etch formulas, provides semi-privacy and blocks out undesirable views. In addition to having a stock of several designs, the company will interpret almost any black-and-white line art or work with customers on special designs. Applications include room dividers, shower doors, decorative mirrors, and poolside  
*[Literature continued on page 155]*

## Who offers architects the widest range of laundry washing systems?



## MILNOR.

With capacities ranging from 35 pounds to 600 pounds, MILNOR® manufactures laundry washer-extractors in 32 different models with 11 different weight capacities. MILNOR has laundry systems for every type of facility... from schools, hotels, factories and nursing homes, to prisons, hospitals and commercial laundries. So, if your next project includes a laundry, check with MILNOR.

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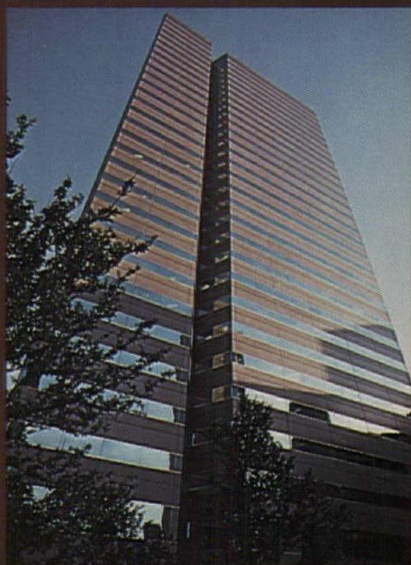
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## Why 40,000 sq. yards of carpet made of Zeflon 500™ – the designer's nylon – was specified for One Dallas Center.

I.M. Pei & Partners wanted a carpet with the aesthetic elegance of wool, but it had to perform for years under extra heavy traffic. They found that Zeflon 500 solution dyed nylon produced carpets with both wool-like beauty and long durability.

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Circle No. 410 on Reader Service Card

Literature continued from page 153

screens. For a catalog and a sample, send \$2 to Ice Nine Glass Design, 6128 Olsen Memorial Highway, Golden Valley, Mn 55422.

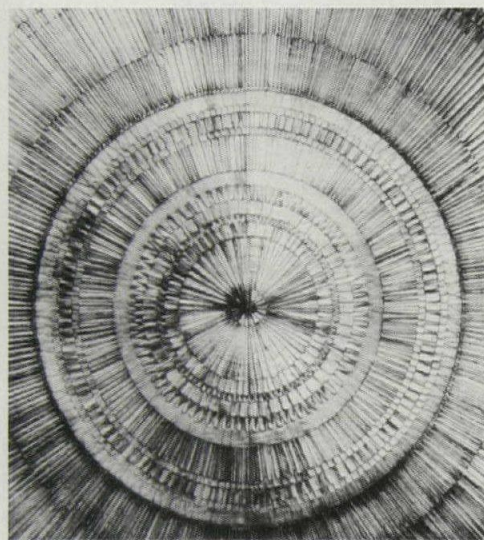
**Reproductions of 18th-Century locks** for interior and exterior use are shown in an eight-page brochure. Both brass and iron models are offered in latch handle and knob styles. Knobs are round, oval, and ball-shaped brass, round or oval nylon, or round porcelain. Baldwin Hardware Mfg. Corp.  
*Circle 201 on reader service card*

The following items are related to the Technics article in this issue. They are grouped here for the convenience of the reader.

### Product

**Windstream™ 33** second-generation wind turbine generators in the 10-20 kW size range, can be interfaced with an electrical utility. It has three blades with a total diameter of 33 ft. Power output is 15 kW at 24 mph. Windstream and its tower have a 25-year design life. It is intended as a supplemental power source for various applications. Grumman Energy Systems, Inc.  
*Circle 105 on reader service card*

### Literature

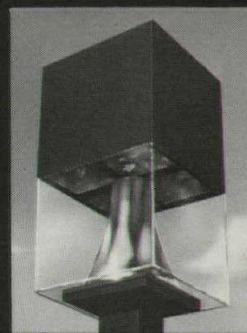


**Bonded bronze** brochure illustrates designs and textures of cladding for doors, interior walls, and architectural features. Bonded bronze consists of bronze granules in tough polyester resins reinforced with fiberglass. The 16-page brochure indicates the suitable product for specific applications. Forms & Surfaces.

*Circle 202 on reader service card*

**Solar storage brochure** describes a system of nonpressurized water-filled fiberglass cylinders to capture and store thermal energy for space and water heating. The cylinders can be used for direct gain, controllable passive, or remote storage. Heating capacity can be [Literature continued on page 156]

## MONO-LITE



New column shaped MONO-LITE and companion pole or wall mounted units—the state of the art in architectural site lighting—by mcPhilben.

■ 12¼" sq. x 8' or 10' height ■ rugged cast and extruded aluminum ■ fully weatherproof ■ beautiful permanent finishes ■ wide choice of H.I.D. light sources.

Inventive minds make better products—specify mcPhilben... for style, performance, durability.

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CANADA: P.O. BOX 150, MARKHAM, ONTARIO

Circle No. 355 on Reader Service Card

augmented with purchased electricity that heats the water by means of immersion heaters or an in-line duct heater. The four-page brochure describes the system, provides a chart of sizes and capacities, and includes specifications for the storage tubes. Solar Components Div., Kalwall Corp.

Circle 203 on reader service card

'Organic Coating Systems' brochure describes tests used to evaluate coatings for resistance to humidity, abrasion, pollution, and salt fog. Aesthetic values tested are color change and fade resistance. The tests help to establish performance standards that are useful for those who specify coatings. H.H. Robertson Co.

Circle 204 on reader service card

'This is Westinghouse' describes how the company products serve industry based on developments in electricity and in energy technology. For buildings and construction, the company provides electrical distribution systems, people movers, heating and cooling, lighting, and office systems. Westinghouse Electric Corp.

Circle 205 on reader service card

'The Design of Herman Miller,' by Ralph Kaplan, is the story of the firm's beginning, development, and growth from a small furniture manufacturer to a major office systems firm. Among the designers who worked closely with the company were George Nelson, Charles Eames, Robert Propst, Gilbert Rohde, and Alexander Girard. The book is 120 pages and has 8 full-color and 100 black-and-white illustrations. It costs \$13.50 and was published by Watson-

Guptill Publications, 1515 Broadway, New York, NY 10036.

## Other products



**REPALC (Revolutionary Precastable Autoclaved Lightweight Concrete)** is a steel-reinforced construction material that can be worked almost like wood, according to the manufacturer, yet is non-combustible and resistant to corrosion, like concrete. It is formed by foaming, and has a smooth texture that needs no painting or plastering. It can be used indoors or outdoors for applications from curtainwalls, ceilings, walls, and floors to pergolas, outdoor furniture, and decorative panels and grilles. It is the material being used for a prototype prefabricated housing project sponsored by the Japanese government. Showa Denko K.K., REPALC Project.

Circle 106 on reader service card

**Enkasonic<sup>TM</sup> sound-rated matting** is a two-layer composite of polyester non-woven fabric heat-bonded to compression-resistant, three-dimensional Enkamat<sup>TM</sup> webbing. According to the manufacturer, it meets sound rating requirements for multiunit dwellings. The matting is available in 18 mm and 9 mm thicknesses and lengths of 30 m and 50 m respectively. American Excelsior.

Circle 107 on reader service card

**Lime Crest roofing aggregates** of white calcite marble are nonporous and resist weather and corrosion. They are said to reflect up to 60 percent of solar heat, making roof insulation more effective. Limestone Products Corp.

Circle 108 on reader service card

**Rug #2**, designed by Michael Graves, is available in a signed, limited edition. Colors are gradations of green on a pumpkin background, with touches of lavender. The rug is being produced of hand-tufted, 100 percent wool in an 8' x 10' size. V'Soske.

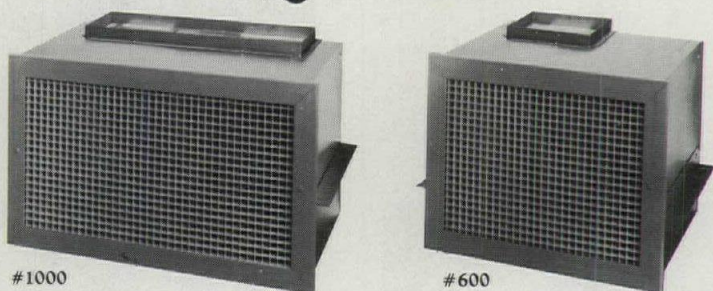
Circle 109 on reader service card

**Industrial Line lighting fixtures** are prewired and have a 4-ft white cord and standard white canopy. Fixtures are made from heavy-gauge steel coated with porcelain and use 60 to 300 watt incandescent bulbs. There is a choice of dome shapes and colors. G.J. Neville.

Circle 110 on reader service card

[Products continued on page 158]

## All's Quieter on the VQT Front



### VQT Ventilators by Thermador Trade-Wind

A full line of heavy-duty ventilators for use in commercial installations of all kinds, ranging from 90 CFM to 1000 CFM.

VQT's are quieter. This is achieved through the use of a large centrifugal wheel turning at a low speed. Plus, motor vibration is dampened out at the source through the use of special neoprene motor mounts and rugged motor mount brackets. The heavy gauge housings and grilles are virtually vibration-free. These assure quieter operation.

VQT's are AMCA rated for continuous duty, air capacities and sound.

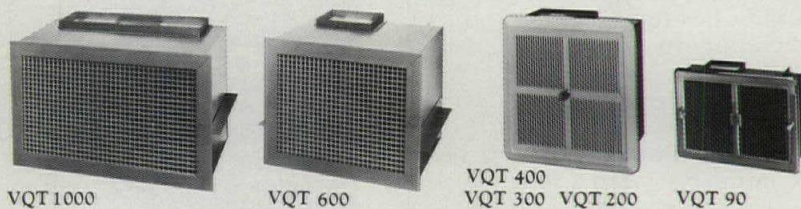


### AMCA RATING FOR SOUND - Sones at 5'

VQT 600 — 5.7 sones

VQT1000 — 6.9 sones

If you're looking for a full line of commercial ventilators that are relatively quieter, you've found them.



### VQT Ventilators by Thermador

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Perhaps the most important new door closer since 1900:

# THE RIXSON *Heritage*

Model 2000-I (Interior)  
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**Superb door control.  
More durable, reliable and  
versatile than any other closer not  
imbedded in a concrete floor.**

## **STRONGEST SURFACE CLOSER EVER OFFERED**

Assures life cycle economy...  
reduced maintenance...  
long term reliability.

- Exclusive one-piece cast iron closer body...cold rolled steel arm...heavy gauge, welded steel cover.
- Exceptional hydraulic capacity and oversized piston, with brass needle valves.

## **SUPERIOR, EXTREMELY RELIABLE CONTROL**

Easy to open, guaranteed to close; protects hardware, door, frame and passersby.

- Unique field-adjustable backcheck system for degree—pre-set at 75° but easily adjusted from 65° to full door opening, regardless of arm application.
- Independent, fully adjustable latch and stroke valves.

## **EXCELLENT, TIMELESS APPEARANCE**

Adaptable to any architectural design or environment. Steel cover and arm readily accept all painted and plated finishes.

- Aesthetically proportioned total closer cover.

- Unique straight arm further enhances appearance.

## **UNEQUALED VERSATILITY/ SPECIFICATION SIMPLICITY**

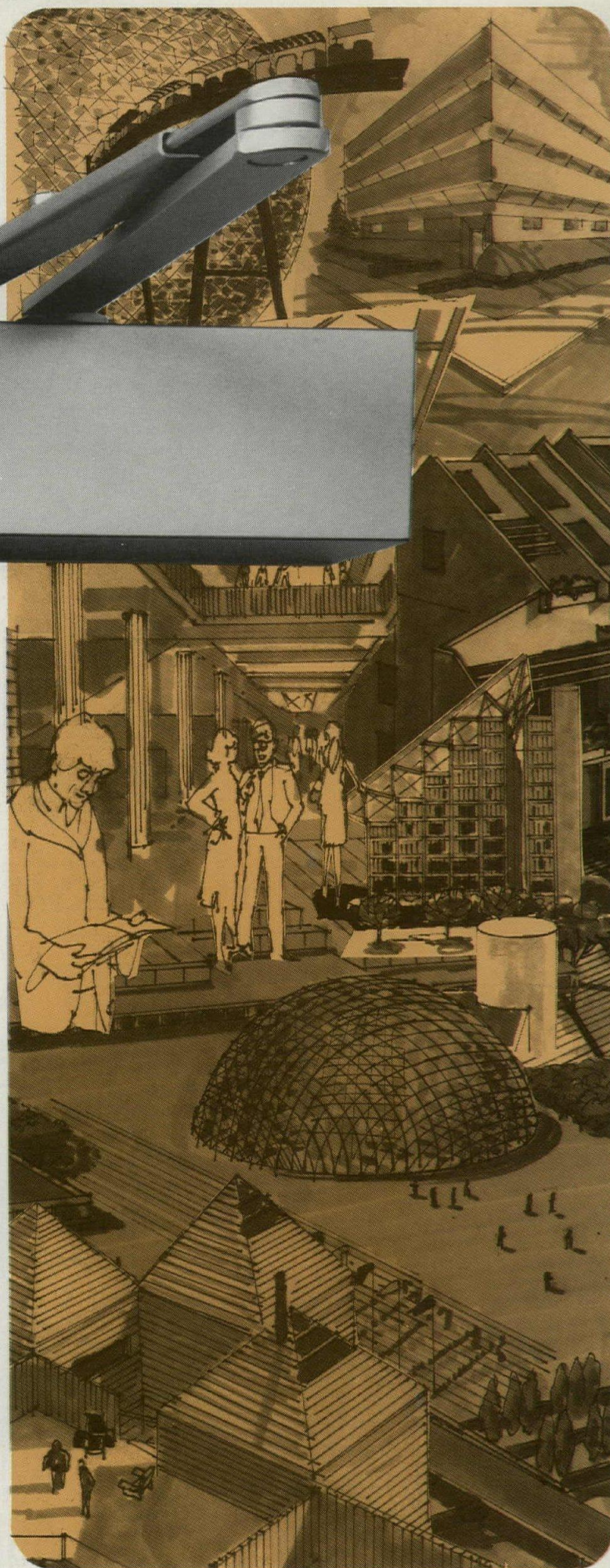
Remarkable capabilities of two basic models (identical in appearance) assure proper, uniform selection, with uncommon ease.

- Model 2000 I (interior): Narrow stile, narrow projection model to complement quality aesthetics in virtually all interior applications. With on-site "power conversion" feature to modify closing force for unusual conditions. Available for parallel arm or top jamb mounting.
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## **RIXSON-FIREMARK**

A DIVISION OF  
**CONRAC**  
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and Rexdale, Ontario—  
312/671-5670





The **Tric folding chair** has solid beechwood legs with seat and back of molded plywood, burnished metal connectors and hinge mechanisms. The award-winning chair is 17 $\frac{3}{8}$ " x 20 $\frac{3}{8}$ " x 36 $\frac{1}{2}$ " high and comes in either black or white. Beylerian.

Circle 111 on reader service card

**SuperFile** provides flat drawers for storage of drawings, film, art work, and renderings. File capacity, in a mixture of 1 $\frac{1}{4}$ -in. and 2 $\frac{1}{2}$ -in.-deep drawers is up to 43 drawers. Optional accessories are dust covers, sheet depressors, drawer dividers, and a reference shelf. Plan Hold Corp.

Circle 112 on reader service card

**Stoneware terra-cotta tiles**, imported from France, are fired at high temperature for low porosity. They are said to be frostproof and suitable for outdoor use. The tiles come in a wide range of shapes and colors. Baldwin Hardware Mfg. Corp.

Circle 113 on reader service card

**Victorian-style bath fittings** include spout, escutcheon, and handles of vitreous china. Trim is polished chrome. The faucet can be mounted on 8- to 12-in. centers and has a cartridge warranty against leaks and drips. China accessories in the Victorian line include towel bars, soap dish, robe hook, paper holder, toothbrush/glass holder and grab bar/soap dish. Bradley Corp.

Circle 114 on reader service card

**Eight fabrics** for use in commercial office interiors are fire-rated and include some with acoustical value. Upholstery fabrics are 100 percent wool heathers, tweeds, and others in over 60 colors. Wall, screen, and panel coverings are texturized, nonporous polyester in about 70 colors. Homestead Fabrics.

Circle 115 on reader service card

**Sonocoat concrete floor coating** is a water-reducible, two-component coating that combines acrylic and epoxy resin. It has high gloss, good color retention, and durability. Sonocoat comes in several colors and can be applied by brush, roller, or spray. Sonneborn Building Products.

Circle 116 on reader service card

**Outdoor lighting fixtures** of laminated western red cedar, for walkways, patios, and similar areas, are built to customer specifications to suit site. Graphics can be incorporated in the designs. Ryther-Purdy Lumber Co.

Circle 117 on reader service card

**Clar-Vu hinged patio doors** have 1-in. insulating glass, or they can be ordered with 1-in. triple insulating glass. Interior finish options are natural wood or walnut stain; exterior frames are offered in six virtually maintenance-free finishes. Doors are available in a choice of widths and complement company's window and entrance door line. Weather Shield Mfg., Inc.

Circle 118 on reader service card

**Del Mar Softlight pleated shades** let in light while a thin layer of aluminum on the outside helps to reduce solar heat gain and the effects of harmful rays. Made of woven polyester, they are permanently pleated and raise compactly out of sight. They also create an insulating air space between the shade and the window in winter to provide insulation and reflect heat back into the room. Liken Home Furnishings.

Circle 119 on reader service card

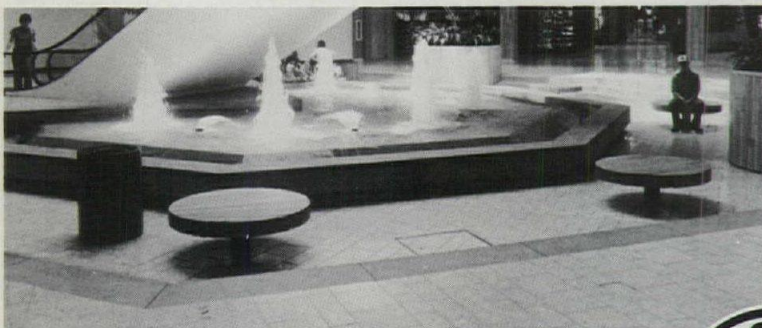
**Window Quilt<sup>®</sup> insulating shades** are made up of five layers: aluminized plastic film, with polyester fiberfill on each side, faced and backed with woven polyester. The foil layer acts as both moisture barrier and heat reflector. The

[Products continued on page 160]

# 10 Distinctive BUILDING GRANITES

IN 12 DIFFERENT FINISHES — FROM ROCK OF AGES  
— GIVE YOU A BROADER CHOICE

Just two of many installations



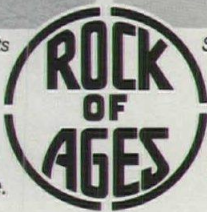
Fountain, Ingleside Mall, Holyoke, Massachusetts King and King, Architects



Sidewalk, Seagram Building, New York City Johnson and Burgee, Architects

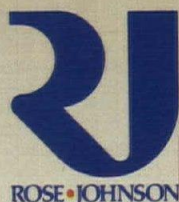
Rock of Ages' granite quarries are in Maine, New Hampshire, Quebec, Ontario, Oklahoma, and in Barre, Vermont, the largest quarry in the world.

Send for full color brochure.



**Rock of Ages Building Granite Corp.**  
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Rose Manufacturing Company and Johnson Furniture Company have combined 135 years of furniture manufacturing experience to offer an open plan furniture system that pays attention to details.

The Rose•Johnson system addresses itself to the needs of all levels. A wide selection of panels, work surfaces, storage cases and electrical components can create the suggestion of status, limited only by the imagination.

The meticulous attention to detail, quality and design will be evident in any furniture grouping.

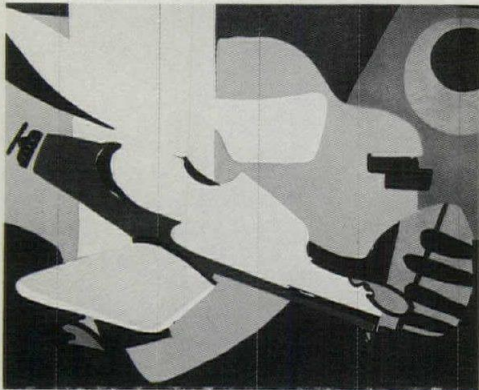
For further information and literature on how this system can work for you contact Rose•Johnson.

Office  
Furniture  
Systems



custom-cut and installed quilt operates in a track that holds it against the window, sealing out cold air and keeping heat from escaping. Colors are white, bone, camel with white backing, and navy with bone backing. Appropriate Technology.

Circle 120 on reader service card



Mural from the Newark Airport by Arshile Gorky rendered in seven ceramic panels.

**Large ceramic plates** up to 600 mm x 3000 mm x 20 mm thick (2' x 10' x 0.8" thick) are produced in Japan by Otsuka Ohmi Ceramics Co., an accomplishment for which the company received a technology award. Multiple panels are used as the base for original art or reproductions of art work, which is then glazed and fired. Mitsui & Co. (USA), Inc.

Circle 121 on reader service card

**Dauphin seating** combines ergonomic design with European styling. Included in the line is a drafting height chair, which has airlift height adjustment from 24 to 32 in. and an attached footrest. The fabric is polyacryl, available in anthracite, beige, orange, and blue. Charvoz-Carsen Corp.

Circle 122 on reader service card

**Acoustical suspension systems** include exposed tee, concealed grid, fire-rated exposed or concealed, and the Coordinator™ ceiling system, a modular integrated ceiling that can be installed flat, coffered, or pyramidal. There is also a low-cost method for installing a gypsum board ceiling in 2' x 4' modules that will also accommodate lay-in light fixtures. Donn Corp.

Circle 123 on reader service card

**Cosmolites**, suitable for indoor, outdoor, or wet locations, are also vandal-proof. Prismatic white diffusers, injection molded of polycarbonate, are high-impact resistant. Housing of die-cast aluminum in a unitized design is fully gasketed to be weathertight. The lights are available rectangular, square, or round in over 150 models. Omega Lighting.

Circle 124 on reader service card

**Pen-Chrome Super S and Super V coatings**, made of urethane, are water-based. Super S stains, in 11 colors, have sealing properties, eliminating the need for a separate sealer coat. Super V clear finishes resist marring, marking, many

chemicals, and discoloration. They are available in flat, satin, and gloss finishes. Fuller-O'Brien Paints, O'Brien Corp.

Circle 125 on reader service card

**Solid wood doors** of oak or mahogany, recently introduced, have leaded glass inserts with hand-cut bevels. One model is also available with an etched glass insert with glue chip background. International Wood Products.

Circle 126 on reader service card

**Keyless Entry™ doorlock** is a solid-state system with models for residential/commercial (KE-100) and commercial/industrial (KE-200) models. The master combination can be changed at any time. It is weather and vandal resistant, has a tamper alarm, and can have a secondary code programmed in without affecting the master combination. The commercial industrial model has additional features. Essex Transducers Corp.

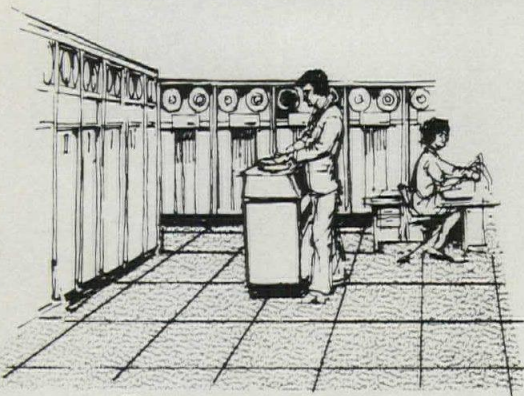
Circle 127 on reader service card

**The EZ-1 emergency lighting unit** is a self-contained unit that provides a minimum of 90 minutes of light in the event of a power outage. It is constructed of flame-rated, high-impact thermoplastic material and has a solid-state charger, low-voltage battery disconnect, test switch, charge rate indicator, and sealed maintenance-free battery. Dual-Lite, Inc., Emergency Lighting Div.

Circle 128 on reader service card

[Products continued on page 162]

## Now, all the benefits of carpeting... with better static protection than tile.



For computer rooms



For general office areas

## Compu-Carpet™

U.S. Pat. No. 4,153,749.

COMPU-CARPET anti-static carpeting is a unique, high performance floor covering developed specifically for use in modern offices, computer rooms, terminal areas and other static-sensitive environments. Attractive and durable, Compu-Carpet has anti-static properties superior even to those of hard surface flooring.

Compu-Carpet meets IBM resistance recommendations. Since its anti-static properties are inherent in its construction, protection is assured for the life of the carpet. Compu-Carpet carries a 5-year static and wear warranty.

Send for complete details.

See Sweet's Catalog 9.28/Un.

Mfd. by **UTP UNITED TECHNICAL PRODUCTS, INC.**  
THE STATIC CONTROL PEOPLE

Dept. A/PA  
32 Southwest Industrial Park, Westwood, MA 02090, (617) 326-7611

# SUPER R/35 PLUS<sup>★</sup>

**For Energy Efficient  
Open Beam Ceilings**

\*For exposed beam ceilings, Easy-Ply Roof Decking has the ceiling side laminated with a prefinished decorative vapor barrier. A tough, structural roof deck plus a finished ceiling, too. That's R/35 PLUS.



R29 THERMASOTE

R6 HOMASOTE EASY-PLY  
ROOF DECKING



**homasote**

MADE FROM 100% RECYCLED MATERIAL



**Homasote Easy-Ply<sup>®</sup> Roof Decking** is 2 $\frac{3}{8}$ " thick in nominal 2'x8' panels, with long edges T & G. Ceiling side is a white vinyl film which provides a prefinished, decorative vapor barrier.

**Thermasote<sup>®</sup>** is a composite of strong asbestos-free, insulating and weather resistant Homasote structural building board plus polyurethane foam and a bottom surface of asphalt saturated felt. It is a nail base insulation for application to Easy-Ply, wood or metal decking.

**The R/35 PLUS** roof insulation system is the result of combining 4" Thermasote, 2 $\frac{3}{8}$ " Easy-Ply Roof Decking and asphalt, fiberglass, wood shingles or roofing tile. As easy as one, two, three—roof deck with a prefinished ceiling, roof insulation and finish roofing. Other thicknesses and R values available. Use the coupon for full data and samples.

Mail to: **homasote Company** Founded 1909 P.O. Box 7240 West Trenton, NJ 08628 PA 11-80

Please rush information about **R/35 PLUS** for open beam roof system.

Name \_\_\_\_\_ Title \_\_\_\_\_

Company \_\_\_\_\_

Street \_\_\_\_\_

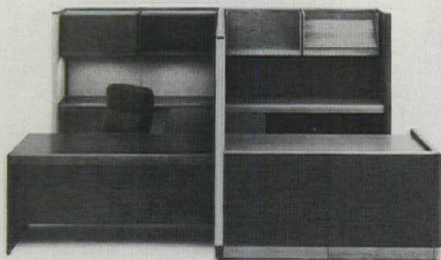
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone ( ) \_\_\_\_\_

Circle No. 340 on Reader Service Card

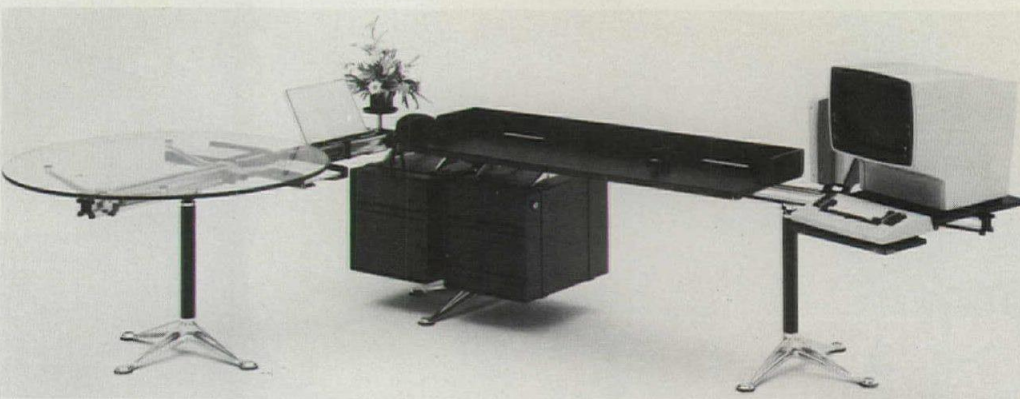
**Hot tubs**, made of either redwood or mahogany, have 1½-in.-thick tongue-and-groove staves held together with corrosion-resistant steel hoops. Each tub is provided with two bench seats and all necessary plumbing fixtures. Sizes are 4-, 5-, 6-, and 8-ft diameters, 2, 3, or 4 ft deep. Accessories available include outside shelf, outside ladder, Jacuzzi whirlpool, heater, and a cover to reduce heat loss and keep out debris. Almost Heaven Hot Tubs, Ltd.

Circle 129 on reader service card



**Modular Units with Connectors** panel system includes three basic hanging storage components: 12-in.-deep shelf, open storage unit, and self-storing flipper door unit. All the storage units, which are available in standard oak finishes, hang from the top edge of the screen. The panels have an electrical raceway, two-circuit system, with pass-through and right angle capabilities. Rose Manufacturing Co.

Circle 131 on reader service card



**Burdick Group office systems**, designed for top management by Bruce Burdick, integrate electronic equipment into the executive office. Components are molded of polyurethane structural foam supported by polished aluminum beams. Special stands hold CRT terminals, telephones, typewriters, dictating machines, books, files, and other office items. The system can be adapted to meet individual work patterns and needs. Tops are wood, marble, glass, or black laminate in rectangular, round, or half-round shapes, in a variety of sizes. The system integrates with the company's Action Office. Herman Miller.

Circle 130 on reader service card

**Symbol of access signs** incorporate the international symbol of a wheelchair identifying buildings with doorways wide enough to accommodate wheelchairs and restrooms with support bars for the handicapped. The symbol is also combined with other markings indicat-

ing ramps, and special parking places. Seton Name Plate Corp.

Circle 133 on reader service card

**Study carrels** designed to be convenient for wheelchair users have height adjustments from 27 in. to 31 in. and a work surface 42 in. wide by 30 in. deep. They are equipped with adjustable reading stand, two-tube fluorescent light fixtures, and two convenience outlets. Mar-Line Displays, Inc.

Circle 134 on reader service card

**The Commercial Lay-in HID fixture** is said to be more energy efficient than fluorescent and easy to install. The 2' x 2' light can be used with most grid ceilings or racquetball installations by using an optional mounting frame. There are three lens types: prismatic acrylic or polycarbonate, or tempered glass. Hubbell Lighting Div., Harvey Hubbell, Inc.

Circle 135 on reader service card

[Products continued on page 164]

# Announcing a great "put-down" for architects... Pirelli original rubber tile

Perfect alignment. Always square. That's a fact.

Genuine rubber with superb feel and durability. That's wonderful.

A complete line of installation accessories and installation and cleaning products. That's convenience.

The service and reliability of Jason. That's the advantage of the Pirelli rubber flooring.



**Jason Industrial Inc.,** Rubber Flooring Division  
340 Kaplan Drive, Box 507, Fairfield, NJ 07006  
Telephone 201-227-4904

Circle No. 343 on Reader Service Card

# PPG OFFERS A STUNNING ALTERNATIVE TO THE DRAB SLAB.

Discover a spectacular exterior wall treatment that puts new designs on all that it surrounds. Discover PPG's Solarcool® Spandrelite® wall cladding.

In addition to dramatic beauty, Solarcool Spandrelite wall cladding offers outstanding performance capabilities. In new or existing applications. And at a cost that's lower than the expected exterior wall treatments: masonry, aluminum, stone and polished stainless steel.

An advanced structural silicone glazing system with the mullions inside can make Solarcool Spandrelite wall cladding appear seamless.

You're free to choose glass types and thicknesses previously unimagined.

And Solarcool Spandrelite works as an energy-efficient opaque curtain wall or a window area. Can even hang in front of insulation.

Since 1965, PPG has led the world in creative application of structural

silicone glazing systems. And began to build more "oohs" and "aahs" into buildings.

Find out more. See Sweet's 8.26/Pp. Or write Environmental Glass Sales, PPG Industries, Inc., One Gateway Center, Pittsburgh, Pa. 15222.

PPG: a Concern  
for the Future

Circle No. 408



Architect: Robert Bridges Associates, New York

**Concrete trench system, Channel Slope**, has cast iron or steel grates that are tight fitting and bicycle or wheel-chair proof. The drains are interlocking precast polyester concrete channels with a built-in slope. Components are grates, catch basins, caps and vandalproof locking devices for the grates, pipe connections and knockout panels in various positions, and neutral channels. ACO Drain, Inc.

Circle 136 on reader service card

**Coffer Lighting System 2** is made up of a multisided coffer and any of several lighting options. It can be used to make up an entire ceiling or to form lighting groups within a ceiling. There are three sizes and three different angle slopes. Finishes are polished or satin metals, woodgrain vinyl, or matte white. Light-olier.

Circle 137 on reader service card

**Metal-face ceiling panels**, either perforated or unperforated, resist high humidity and freeze/thaw cycles. The vinyl-coated surface resists penetration of dirt, grease, and moisture. The lay-in panels offer installation ease and plenum access. The unperforated type has a Class 25 fire rating. Conwed Corp.

Circle 138 on reader service card

**Conversion factors** for architects and designers are contained in a 28-page guide with universal applications. The nearly 1000 entries, organized in alphabetical order, convert metric to English, provide decimal equivalents, etc. Acme National Refrigeration Co.

Circle 206 on reader service card

**Polypropylene fibers and fabrics** are discussed in a 36-page, full-color company capabilities brochure. Shown are carpeting, upholstery, and other fabrics made by the company from polypropylene yarns. Charts compare properties of polypropylene to those of other fibers. Amoco Fabrics Co., Patchogue Plymouth Div.

Circle 207 on reader service card

**'Stainless Steel Membrane Roof'** is a 24-page booklet that discusses the concept, design, fabrication, and installation of air-supported steel membrane roofs. This type of roof provides a clear-span cover over large areas such as sports arenas, airport terminals, and exhibition spaces. The report is illustrated with photographs of completed buildings and diagrams showing the kinds and configurations of suspended roofs for different applications. Committee of Stainless Steel Producers,

**Rubber flooring color selector** shows colors available in resilient rubber Travertine, Argonaut®, and Marble tile. Also shown in the eight-page brochure are cove and carpet base and stair tread colors. Recommended adhesives and maintenance methods are included. Burke Flooring Products.

Circle 209 on reader service card

**Dispensers for hand soap**, either granular or lotion, include surface-mounted and recessed models. Several styles are shown and described in a four-page brochure, which also includes information about hand cleansers for light and heavy-duty use. U.S. Borax Co.

Circle 210 on reader service card

**'Design Manual of Structural Tubing,'** both square and rectangular, includes material and specifications, and tables of dimensions and properties of both. The 70-page manual discusses allowable stresses in tension, shear, compression, combined stresses, and wind and seismic stresses, with graphs that illustrate the text. It also covers columns, beams, and column and beam connections. Nippon Steel Metal Products Company, Ltd.

Circle 211 on reader service card

[Literature continued on page 169]

## The Collection.

Focal Point, the unquestioned leader in architectural accent through modern polymers, presents its award-winning collection of cornice mouldings and other accents.

Delicate beauty...incredible strength.  
Absolute integrity...pre-engineered installation.



There's far more to The Collection than moulding. Focal Point has prepared a catalogue featuring its recessed domes, niche caps, medallions, mantels, overdoor pieces, stair brackets and more. Ask for THE COLLECTION.

**FOCAL POINT INC.**

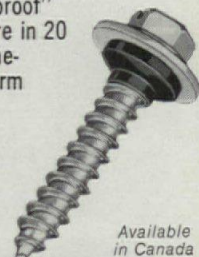
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Circle No. 329 on Reader Service Card

## We punch holes in our system to make it leakproof.

The HICKMAN GRAVEL STOP is so "leakproof" that there's never been a reported failure in 20 years. Special, conically-shaped, neoprene-washed fasteners fill each hole and form tight gaskets with the roofing felts... and compress Hickman's continuous clamp for permanent water protection. See our catalog (7.3 Hi) in Sweet's.

Hickman's FREE "Roof-Line"  
... 1-800-438-3897



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Circle No. 339 on Reader Service Card



## Saves 80% of what others waste!

Conventional faucets waste a lot of hot water. For good reason. None of them are designed to meet ASHRAE/BOCA criteria\* for public restrooms. This faucet is: the new Bradley 90-75 Metering Faucet. And it's the one and only.

Because it is, it saves hot water (and energy) like no other; 80% of what others waste! It's vandal-resistant, too, with a push-button design that takes a mere two pounds to turn on. Which makes it perfect for barrier-free applications.

There's no one-hand juggling act necessary either. While others stop immediately . . . or splash . . . or don't shut off at all . . . the 90-75 is timed to give you all the water you need and no more.

Clean, functional lines with solid brass construction underneath complement any commercial or industrial decor for a long, long time.

Specify the only metering faucet that really works . . . and saves its owner more money than any other faucet made: the new Bradley 90-75. Bradley Corporation, 9101 Fountain Blvd., Menomonee Falls, WI 53051. (414) 251-6000. Telex: 26-751.

\*Public restrooms are required to be equipped with outlet devices that limit hot water consumption to 1/4 gallon at no more than 110° F. at 1/2 gpm.

Another  
right idea  
from  **Bradley**

Circle No. 312 on Reader Service Card



# Introducing GLID-WALL.<sup>TM</sup>

## A new, low cost wall surface renovation system from Glidden.

GLID-WALL covers cracks, small holes, deteriorated or lead-based paint, plus a lot more. Without a lot of work.

Simply prepare the surface. Apply GLID-WALL. Then prime and paint, any color you wish. Without even resetting plumbing, electrical outlets or trim.

GLID-WALL isn't a wallcovering. It's a flexible

fiberglass material, combined with Glidden Insul-Aid<sup>TM</sup> and any Glidden finish coating to make a bonded repair system.

It's strong. Resilient. Mildew-resistant. Not only does GLID-WALL increase insulating factors of walls, it carries a Class A fire rating.

Used with Insul-Aid, it adds a vapor barrier that

helps reduce heat loss. And GLID-WALL adds strength to a wall. In a most cost-efficient way.

Find out more about GLID-WALL, the new wall surface renovation system from Glidden.

**Glidden**

**SCM** GLIDDEN COATINGS & RESINS  
ARCHITECTURAL & MAINTENANCE  
SCM CORPORATION, CLEVELAND, OHIO 44115

Circle No. 335 on Reader Service Card

**Grab bars and corridor rails** for safety and convenience are the subject of a six-page brochure. Dimensional drawings show typical applications for toilets, showers, and tubs. There are also illustrations of grab bars and corridor railings, along with mounting kits and detail drawings showing concealed or exposed methods of mounting. Bradley Corp., Washroom Accessories Div. Circle 212 on reader service card

**Glazed roofing tiles**, Brand 117, available in Western United States, come in several glaze colors, with custom glazes possible on special order. In addition to special shapes for ridges, eaves, and gables, there are ornaments to be used at ridge ends. A four-page brochure illustrates the tile shapes and colors available, and provides installation and specification information. International Tile & Supply Corp. Circle 213 on reader service card

**Entrances and storefronts** are shown, with specifications, in an eight-page brochure. Specifications and illustrations of flush glass frame systems are also provided. The brochure includes hardware, such as pulls, closers, push bars, and hinges. Roto-Swing, Inc. Circle 214 on reader service card



**Architectural brick** brochure illustrates several types of brick in typical installations. The four-page brochure lists suggested specifications for bricks along with color illustrations of each type in natural and earthtones. Huntington/Pacific Ceramics, Inc. Circle 215 on reader service card

**'Superior Interiors'** brochure has full-color photographs showing various-shaped red cedar shingles and shakes used on interior walls. Drawings and step-by-step instructions are provided for applying shingles. A selector chart includes information about grades, lengths, and types of shingles, shakes,

and hand-split shakes. Fancy shingle shapes are illustrated in the eight-page brochure. Red Cedar Shingle & Hand-split Shake Bureau. Circle 216 on reader service card

**Delivery service** will make large or small shipments around the world. The service, explained in an eight-page folder, is available 24 hours a day, seven days a week, to 25 countries. The sender is notified when delivery has been made. Air Couriers International, Inc. Circle 217 on reader service card

**'Clay Tile the Traditional Roof'** is a 20-minute color film, with sound, covering a brief history of clay tile and its use as a contemporary roofing material. Arrangements can be made for a free showing of the film to architects, designers, developers, builders, general contractors, and roofing contractors by telephoning U.S. Tile Co. at (714) 773-9161.

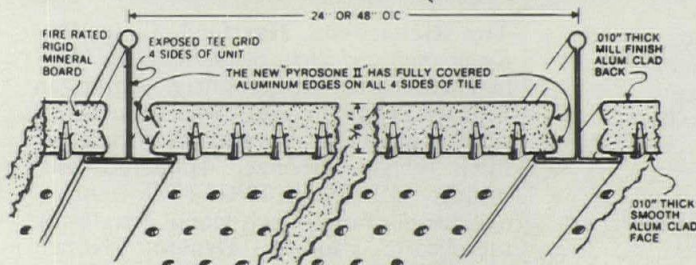
**Asphalt roofing** brochure illustrates several types and grades of shingles for residential, light commercial, and institutional applications. Colors for each type are shown, along with photos of typical installations. The 16-page brochure also lists cements, coatings, and emulsions. The Flintkote Co. Circle 218 on reader service card [Literature continued on page 170]

# PYROSONE® II

Qualifies for 2 hour fire-rating

**ALUMINUM TILE,  
COVERED FACE, BACK  
AND ALL FOUR EDGES**

Thick (.010") aluminum shell with non-combustible rigid mineral board core. EASY MAINTENANCE, GOOD ACOUSTICAL AND SOUND ATTENUATION RATING.



Easy installation—edge tiles can be field-cut with a knife.

**LOW COST LARGE MODULE UNITS**  
Can be repeatedly washed for easy maintenance

TILE IS REVERSIBLE IF BAKED WHITE ENAMEL FINISH IS USED ON FRONT & REAR SURFACES Available Direct From Mnfr.

For sizes, finishes or prices, call or write • Refer to SWEET'S Section 9.1

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• Sales "Reps" needed—Write to Simplex for information •

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## Fight the high cost of repetitive drawings... with the STANPAT System.

Since 1943, STANPAT has fought inflation for engineering and architectural firms with the *only* system of appliques that gives you a five year shelf life guarantee!

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Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
PA-11-80

Circle No. 382 on Reader Service Card

# HIGH-RISE QUESTION:

What's the best way to cut construction costs in low-rental apartments?

# LOW-COST ANSWER:

Reinforced concrete reduces building height and final costs—with no sacrifice in livability.



The designers of the twin 11-story South Port Towers in Elmira, N.Y. evaluated several framing methods in their search for the most economical construction method.

They decided on reinforced concrete for these apartments for the elderly. Any other material would have increased the floor-to-floor heights by up to 1 foot. And that would have resulted in an 11-foot height increase, substantially increasing final costs.

Each reinforced concrete tower is 87 ft. x 85 ft. in plan view and rises 95 ft. above ground level. The connecting base is 125 ft. x 48 ft. The complex contains 208 apartments plus recreational and community rooms and clinic.

The framing system is 8-in. thick concrete bearing walls and 8-in. thick concrete one-way slabs. Costs were slashed during construction by the use of a large tower crane placed between the two towers. Easy access to construction materials was thus provided

and the towers were built in alternate stages. For even more economy, metal ganged forms were used for bearing walls and floor slabs. One set of forms was re-used 44 times.

Interior walls were painted to further cut costs. And the pleasing "fractured granite" look of the outside end bearing walls and the fins of interior bearing walls was economically achieved with hard rubber-like liners inside the concrete forms.

Reinforced concrete gave the city of Elmira the answer to attractive, functional low-rental housing. And there was never a question that concrete could do it all—economically.

Write for Bulletin 7904.

Architect: **Haskell, Conner & Frost, Elmira, N.Y.**  
Structural Engineer: **Miller-Sizing, P.E., Syracuse, N.Y.**  
General Contractor: **Streeter Associates, Elmira, N.Y.**  
Owner: **Elmira Housing Authority.**

**CONCRETE REINFORCING STEEL INSTITUTE**  
180 North LaSalle Street, Room 2112  
Chicago, Illinois 60601



## THE ANSWER'S IN REINFORCED CONCRETE

For information on Professional Membership Program, write to Director of Marketing.

Circle No. 400 on Reader Service Card

Literature continued from page 169

'Steel Solar Systems' is a 16-page brochure that shows school and university projects using steel flat-plate collectors in closed loop systems. Diagrams illustrate how such a system works and the text discusses the use of steel in solar systems. Committee of Steel Pipe Producers, American Iron and Steel Institute.

Circle 219 on reader service card

**Duraflake FR particleboard**, with a Class 1 fire rating in accordance with major building codes, is also resistant to termites. A technical data sheet provides architectural specifications and product information, including UL classification and physical properties. Willamette Industries, Inc.

Circle 220 on reader service card

**Asphalt-base waterproofing products** for construction are included in a selector chart that provides product description, uses, performance data, and application and packaging information. There are vapor barrier coatings, sealants, compounds for waterproofing below grade or on exposed surfaces, and asphaltic primer coatings for porous surfaces. The four-page brochure of Nokorode® products has detail drawings showing how they can be used. Tosco Corp., Protective Coatings Div.

Circle 221 on reader service card

**Ceramic tile catalog** shows glazed tiles for walls and floors, bathroom accessories, Master-Set® and Redi-Set® tiles in panels, mosaics, and quarry tiles. Suggested specifications are provided for each type of tile. The 36-page catalog also lists representatives and distributors. American Olean Tile Co.

Circle 222 on reader service card

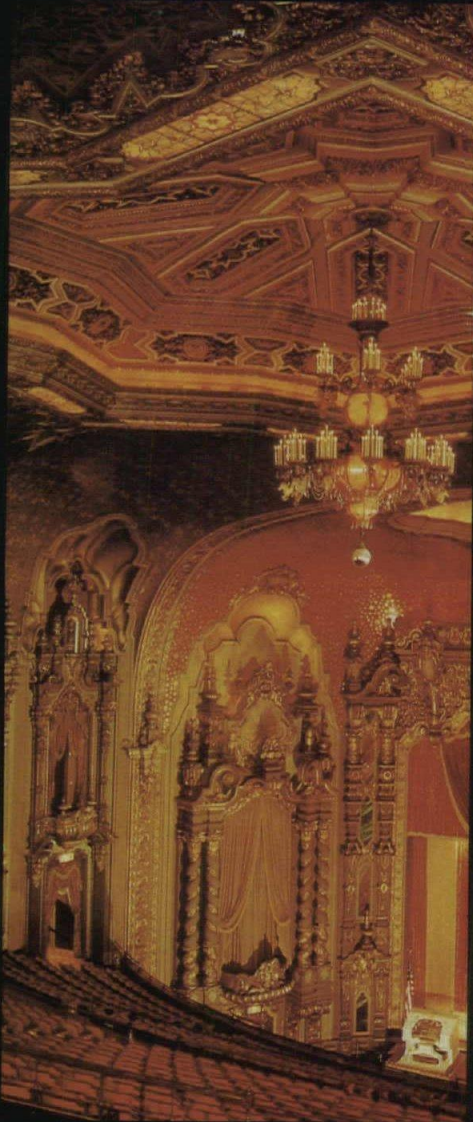
## Building materials

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

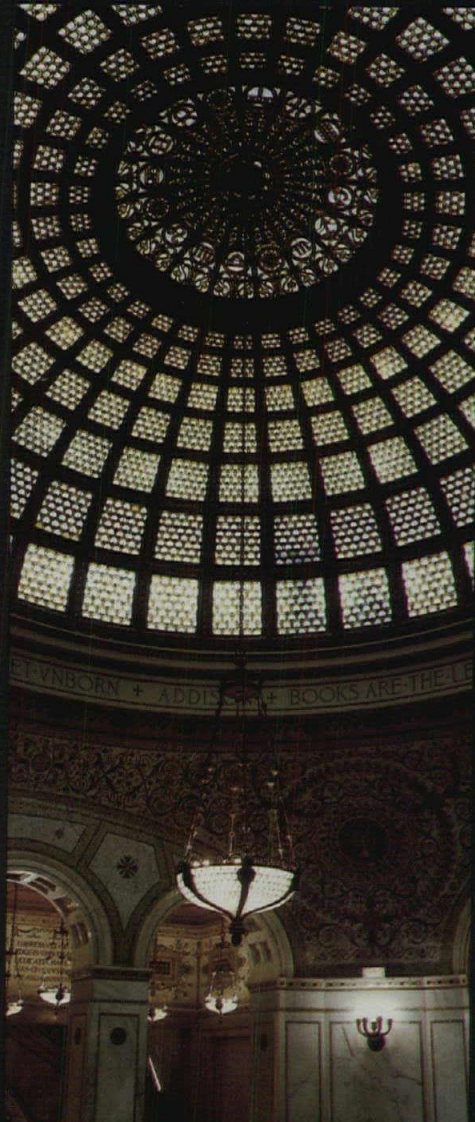
**The Richardson, Hartford, Ct (p. 92).**  
*Renovation architects: Stecker/LaBau, Hartford, Ct.* Spray fireproofing: American Energy Products. Aluminum fixed and sliding windows: Seventy Wall System; PPG (glass). Bronze Anodized aluminum storefront: PPG. Hollow metal overhead doors: Ceco Corp. Single-ply membrane roofing: Dynamit Nobel. Waterproofing/sealants: Pecora Corp. Waterproofing for roof and deck: Karnak AR Elasto-Roof. Drywall partitions: U.S. Gypsum. Interior paint: PPG Industries. Hardware: Glynn-Johnson. Kitchen appliances: Hot Point. Communication/intercom: Marlee Electronics; Telcom Inc. Fire alarm: Simplex. Trash chute: Midland Metal Craft. Glass front elevator: Otis Elevator. Electric distribution: General Electric. Lavatories, tubs: Universal-Rundle. Water closets: Kohler. Toilet [Building materials cont. on p. 172]

# Rambusch restoreth what time taketh away.

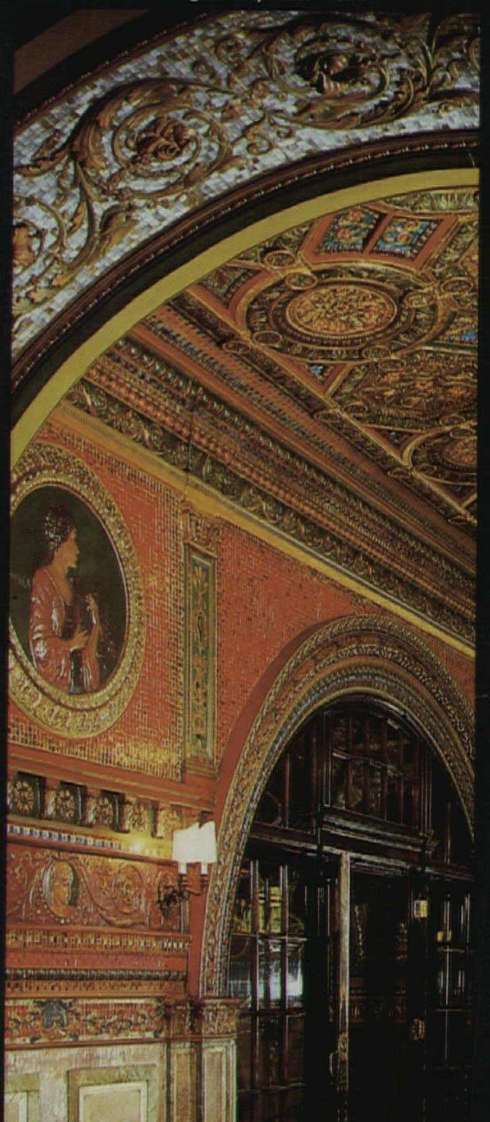
The Ohio Theatre-Columbus



Chicago Library & Cultural Center



Residential Building Lobby-New York



In full accord with the original, Rambusch restores, rebuilds, repaints and enhances... a legislative chamber, a courtroom, a theater, a museum, a bank. From cleaning and refinishing oak panelling to painstakingly

restenciling a Victorian architectural detail. And from designing and fabricating a stained glass window to the efficient relighting of a grand old room. Rambusch creates and recreates the total environment. In a unique

series of art and craft studios, within Rambusch, highly skilled designers and artisans contribute their cumulative expertise to recapture a glory long past. For further information please contact William T. Weber.

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consultation/planning/design/fabrication/installation

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Circle No. 369 on Reader Service Card

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And that's where Ox-Line EPA-evaluated\* ABC Asbestos Binding Compound, developed by Lehman Bros. Corp., comes in. ABC is a spray-on compound that encapsulates asbestos, trapping fibers behind an impervious coating.

And it's rated #1 in comparative tests conducted by the New York Board of Education.

So, if you've got asbestos in your building, let Lehman Bros. help you do something about it. Before it does something to someone else. Write or call today for more facts.

**Lehman Bros. Corp.**  
Jersey City, N.J. 07304  
201/434-1882



\*Evaluated by Battelle Columbus Laboratories under contract #68-03-2552 with the EPA, through the office of Toxic Substances.

Circle No. 406 on Reader Service Card

Building materials cont. from p. 170

stalls: Flush Metal Partition Corp. Heat pumps: Friedrich. Boilers: Cleaver Brooks. Air distribution: Trane Corp. Pumps: Bell & Gossett. Environmental controls: Johnson Controls. Carpeting: Mohawk. Exterior lighting: Welsbach.

**Citibank at 55 Wall Street, New York (p. 96).** *Renovation and interior architects:* Walker/Group, New York. Marble wall surfaces for wainscoting, bases: Miller-Druck. Downlights and wall washers: Edison Price. Accent lighting: Rambusch. Counter lighting: Habitat. Fluorescent lighting: Work-O-Lite. Chairs for tellers: Kinetics. Blinds: Abbott Glass. Upholstery material for teller chairs: Scalamandré. Leather tops for desks: American Leather Mfg. Co. Polyester and plastic laminate finishes for custom casework and wallpanel fabrication: Eckert-Johnson Corp. Acrylic glass signage, polished brass caps and fasteners: The Other Sign Co. (fabrication); Rohm and Haas (manufacturer).

**Cincinnati Union Terminal, Cincinnati, Oh (p. 100).** *Renovation architects:* Schofield & Schofield, Columbus, Oh. Ceiling surfacing: Armstrong. Exterior paint and stain: Wilson. Security: ADT. Escalators: Westinghouse. Handrails: Blumcraft. Lighting: Halo. Electrical distribution: Federal Pacific. Sprinklers: Aurora Pumps. Flooring: Heuga Tile.

**Arcade Square, Dayton, Oh (p. 106).** *Architects:* Lorenz & Williams, Inc. (New components only are listed.) Skylights: EPI. Anodized aluminum doors: Kawneer. Ceramic tile: American Olean. Linear metal ceilings: Luxalon Hunter Douglas. Paint: Sherwin Williams. Hardware: McKinney, P. & F. Corbin, L.C.N. Communication/intercom: Soundolear. Fire annunciator: Game-well. Security system: RCA. Signage: Blommel. Elevators and escalators: Montgomery. Lighting: decorative, American Lighting and Miller; in metal ceilings, Neo-Ray, Omega, Day-Brite exit, and Guth. Electric distribution: General Electric. Sprinklers: Reliable. Chillers, air handlers, and cabinet heaters: Trane. Air handlers: Bohn. Cooling tower: Baltimore. Controls: Johnson.

**Valley National Bank, Des Moines, Ia (p. 112).** *Architects:* Charles Herbert & Associates. (New components only are listed.) Glazing: PPG, LOF. Aluminum window frames: Kawneer. Bronze entrance doors: Ellison. Travertine and terrazzo floors: Des Moines Marble and Mantle. Suspended ceilings: Armstrong. Roofing membrane: Carlisle. Silicone seal for limestone: General Electric. Styrofoam insulation: Dow. Gypsum board and metal stud partitions: U.S. Gypsum. Oil base paint, exterior and interior: Iowa Paint. Door hardware (existing and new): Yale. Mercury vapor Metalarc lighting (interior): Prescolite. Washroom/bathroom accessories: Watrous. Air-conditioning chillers: Trane. HVAC controls: Johnson Controls.

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**Tall buildings:  
design and structure**

After a mid-1970s lull, the skylines of our cities are again erupting in a burst of highrise construction. No longer driven to set records for height or square-footage, today's tall buildings represent more prudent calculation of factors such as structural efficiency, energy use, and marketability, plus a revived interest in distinctive imagery. In this issue, P/A's Technics editor will analyze and summarize the latest structural concepts and practices. A companion article will survey the various current challengers to the flat-topped parallelepiped that long reigned as the only acceptable form for the tall office building.

**Office interiors:  
two for highrises**

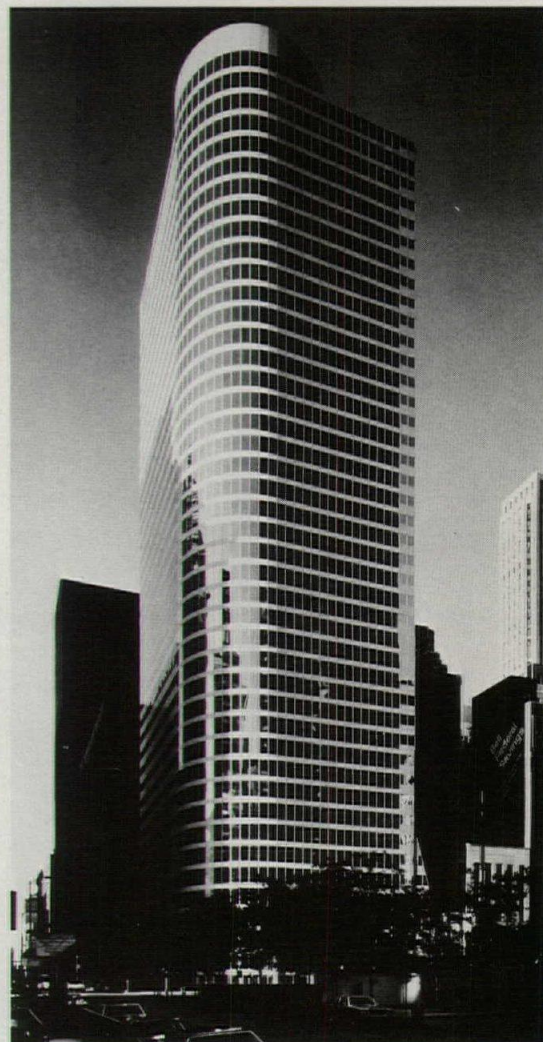
Inside the tall building, freer and more individualistic ways of dividing up office space are being explored. Two fresh and indicative new examples will be featured.

**Crystal Cathedral:  
a star is born**

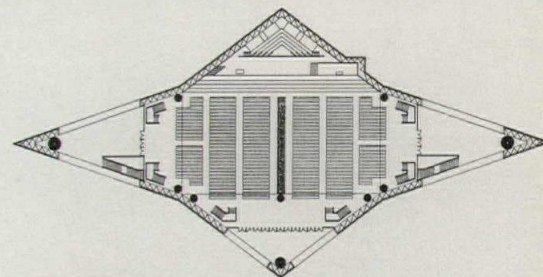
A magnet for architectural tourists even during its construction, Johnson/Burgee's vast prismatic church in the suburbs of Los Angeles has now opened to the accompaniment of television and national news magazine coverage. P/A will explain this remarkable religious building in photos and drawings, assessing its strengths and weaknesses in an accompanying critique.

**P/A in January:  
annual awards issue**

This January, as it has every January since 1954, the architectural profession will have an opportunity to peruse the selections and findings of the annual P/A awards competition. It will be time to survey the forefront of design as this year's jury sees it—a time to applaud, raise eyebrows, shrug, or clamp palm to forehead, as each reader sees fit.



*Xerox Centre, Chicago, C.F. Murphy Associates.*



*Plan, "Crystal Cathedral," Johnson/Burgee.*



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- I. The *King Faisal Medical City* Administrative Office in Riyadh, Saudi Arabia, Post Office Box 2727, wishes to prepare the design of 250 beds as an extension to the existing building of the *King Faisal Specialist Hospital* in Riyadh. The design shall include all the necessary medical and technical services.
- II. Qualified A/E firms with prior experience in the design of Hospitals and Medical Institutions are invited to submit their qualifications.
- III. All firms desiring to be pre-qualified should fill in application forms which can be obtained from:

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- IV. Application should be submitted by mail to *King Faisal Medical City Administrative Office*, Riyadh, Saudi Arabia, before the middle of December 1980. The Administration reserves the right to select which ever applicants they find most qualified to submit a proposal for the design of the above mentioned facilities.

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[continued on page 180]

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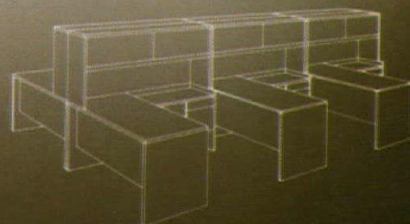
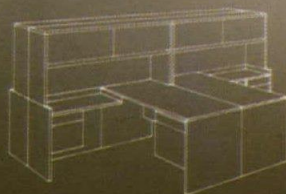
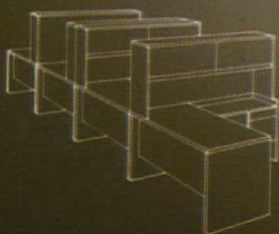
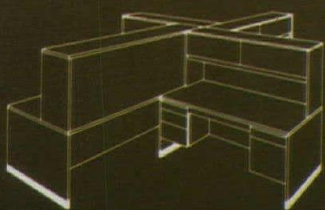
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