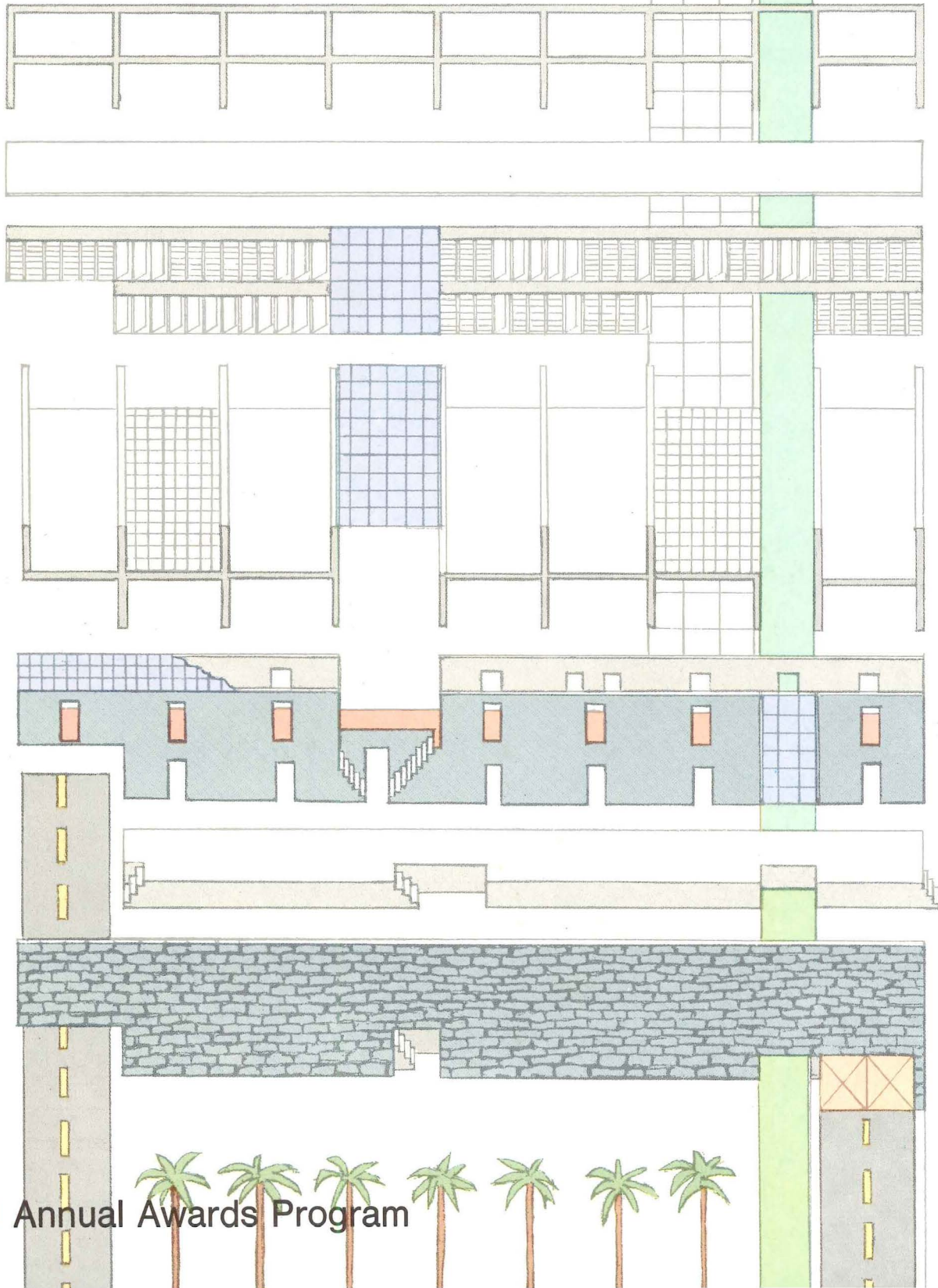


Progressive Architecture

January 1975 An  Reinhold publication



22nd Annual Awards Program

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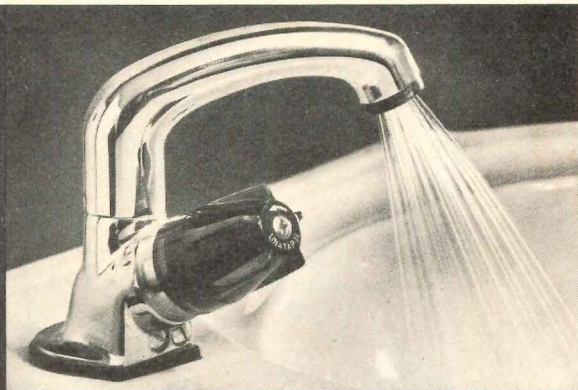
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future now and learning all you can about sprinkler systems properly could save you money in the future when you come face to face with one of these tough new codes.

A question of ethics. The tragic fire in Sao Paulo, Brazil which claimed more than 200 lives raises a serious ethical question. Occupants of high rise buildings have the right to expect protection from a fire that could leave them stranded hundreds of feet above the reach of fire department ladders and hoses. Many experts agree that a modern sprinkler system is the best way to insure that kind of safety.

Rental appeal. Many firms are insisting that tall buildings be sprinkler protected for the safety of their employees. As this trend continues, non-sprinklered buildings will be at a decided rental disadvantage. In addition, sprinklers give building owners the maximum usable rental space and provide more rental income.

Cost savings. Of course, permissive clauses in building codes vary from city to city, but sprinklering your next high rise will make it safer and could save you money in many, or all of the following ways: *Flame spread ratings of surface finishing materials can be increased. Fire ratings of walls, doors, roofs, floors, beams, trusses and columns can be reduced. The distance between fire exits can be increased leading to fewer stairways. Larger non-compartmented areas are permissible, and fire barrier requirements can be eliminated. Smokeproof entrance closures to exit stairs can be eliminated if stairways are pressurized. The requirement for "areas of refuge" can be waived. Manual fire alarm systems may be eliminated. Fire hoses and cabinets can be eliminated. Riser piping is permitted to serve as combined sprinkler riser and fire department standpipe.*

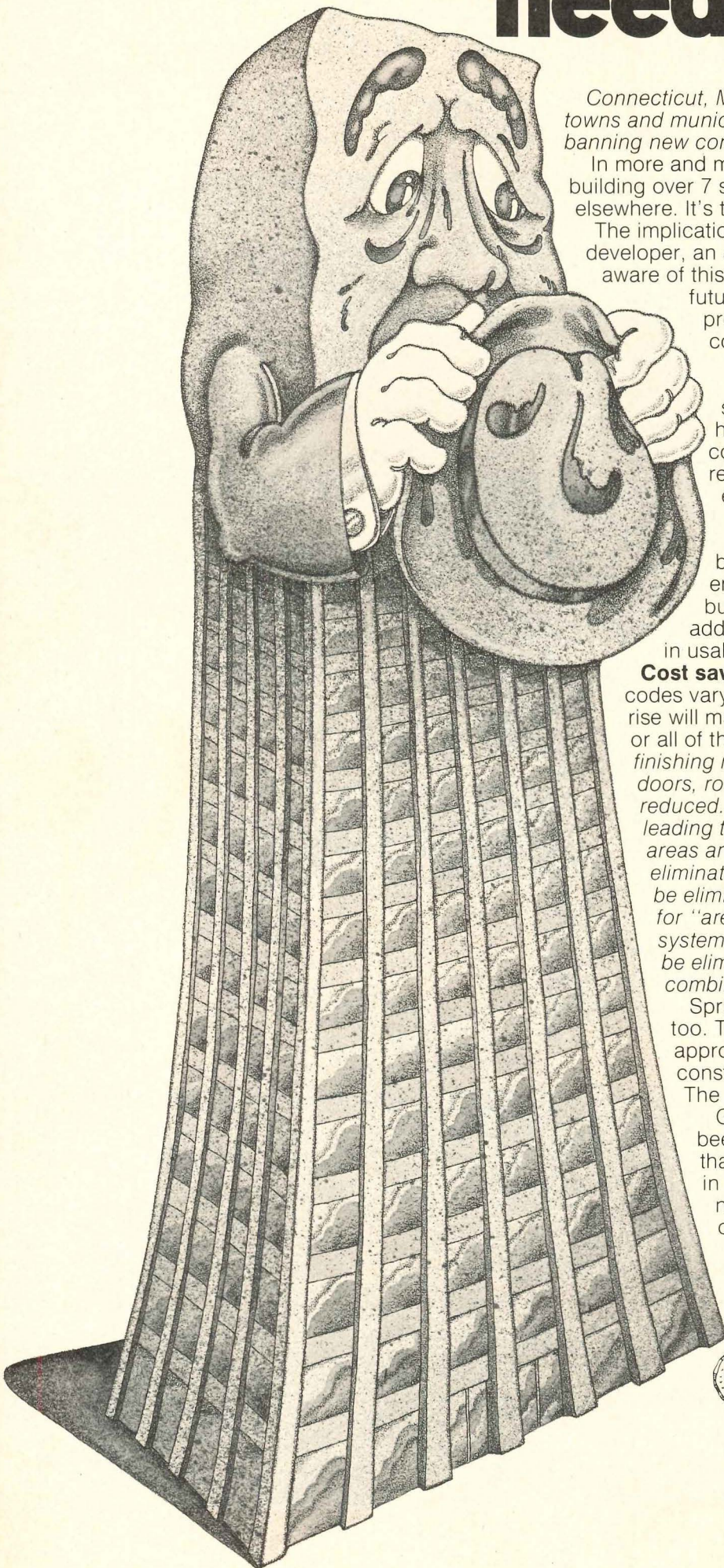
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January 1975

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Cover: Expanded projection of award-winning house in Florida
by Remment Koolhaas and Laurinda Spear. (p. 46)



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Views

Recycling center

I congratulate P/A for noting the work of the VGRT and its Greenwich Village Recycling Center (P/A, Oct. 1974, p. 40), but I am forced to make an additional comment.

Your description "any other landscaped urban space" to describe the appearance of the triangular land is understated. The area is actually a garden rampant with herbs, rare plants and is truly an incredible sight to behold; unfortunately, this was not obvious in your photograph. However, the uniqueness of the garden is that it is one of a small and steadily growing number of New York City community gardens, cooperative ventures which give that rare breed of New Yorkers a chance to return to the soil.

It has come to our attention that at present the New York Horticultural Society is attempting to catalog these gardens to further their growth.

Gregory P. Benz

Hartheimer Bender & Estey, Architects & Engineers
Delmar, N.Y.

Cuban Architecture

As a Cuban, a graduate of architecture from a U.S. university, and a P/A subscriber, I was very disappointed in finding eight prime pages (p. 84-91) of your October 1974 issue go to waste.

The article on Cuban architecture (1959-1974) turned out to be the continuation of the two-part propaganda show, which started with the CBS fiction special concerning Castro, Cuba, and the U.S.A.

There is not much to comment on the architecture shown, three graphical

posters, and three very poor projects, which in common everyday architectural language could be classified as abortions, evidence of the presence of the communist cancer.

By the way, what is Susana Torre doing practicing and teaching architecture in such a capitalist city? Is she for real, or another loudmouthed fake?

Ramon G. Perez-Alonso
Oklahoma University Graduate
Coral Gables, Fla.

[Our article was not, of course, part of a coordinated "propaganda show." We took the opportunity to share with readers an authoritative report on what has been happening just a few miles off the U.S. mainland. We realize that the writer and other Cubans may have suffered repression under the current regime, and we sympathize with all such victims. Our publication of this article was in no way swayed by political partisanship.—Editor]

Peoria approval

Regarding the letter from James Stewart Polshek in your October issue (p. 7): Bravo! My respect for Mr. Polshek (though I have never met the man) was secured in the few seconds it took to read his letter. As a Peoria architect, I can say we appreciate the sentiment (however indirect).

William Voelker III

Phillips Swager Associates
Peoria, Ill.

[Polshek's plea on behalf of Peoria, Topeka, and Kalamazoo, for readers who may have missed it, was in his review-at-a-distance of the show "White and Gray meet L.A."—Editor]

Photo clarification

In the article "Architecture and revolution in Oct., 1974 P/A, both photos on the right side of p. 87 are of the Salvadore Allende Grade School; the bottom left photo on p. 88 is of a 1962 housing project in the Jose Marti District of Santiago.

Architecture or industrialization?

It is unfortunate that your article on the Green residence (P/A, Oct. 1974) questions whether an architect of Paul Rudolph's stature should devote himself to forays into the design of industrialized housing. It would have been a service to all concerned if you had publicly applauded his interest in industrialized housing and encouraged

more architects of his stature to become leaders in this growing industry.

The Green house is, as your article states, a stunning piece of architecture. But from its basic concept to its final erection it ignores the realities of industrialized buildings.

I would humbly suggest to Mr. Rudolph that if he really does have an interest in making a contribution to industrialized building that he devote more time to the industry, and use this time to fully understand the industry and the facts of life it has to live with on a day-to-day basis. Then when he designs a prototype to present his concepts and ideas, he can use his immense talent to make a contribution that is more than "a stunning piece of architecture."

And if P/A wants to pursue an interest in the industrialized building industry, then you must present the facts as they really are and not as idealized visions from outstanding architects who don't really understand the industry. Present an issue with people who are in the industry, who know the industry, and who are succeeding in it. The issue would not present outstanding design, at least from an architect's viewpoint, but would present a picture of an industry that is giving a vast portion of the population a place to live and work.

The real question is whether or not P/A has the courage to make an honest effort to understand the industrialized building world and present it to a selected readership of professionals who are, by and large, excluded from the industry because they are unable to "do their thing" under its necessary parameters.

Jack B. Douthitt, AIA
Madison, Wis.

[While we agree with Mr. Douthitt's suggestion that P/A should devote attention to the realities of the industrialized building process—and we intend to do so—we wonder if he didn't misinterpret the point of the article. We are hardly questioning Mr. Rudolph's involvement in the design of industrialized building. On the contrary, as we summed up in the last paragraph, Rudolph has made a significant contribution, because his experiments, however prototypical, provide a model for other architects who hesitate to involve themselves in this field in any way. We applaud his efforts to set an example, [continued on page 12]

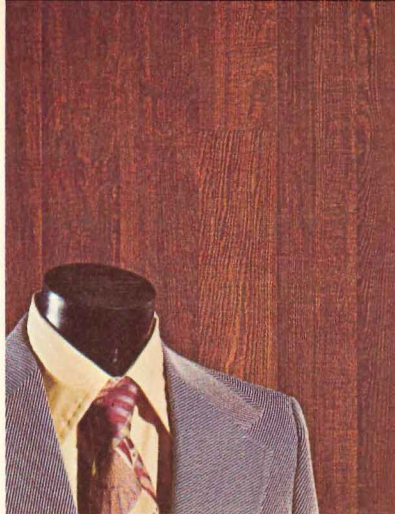
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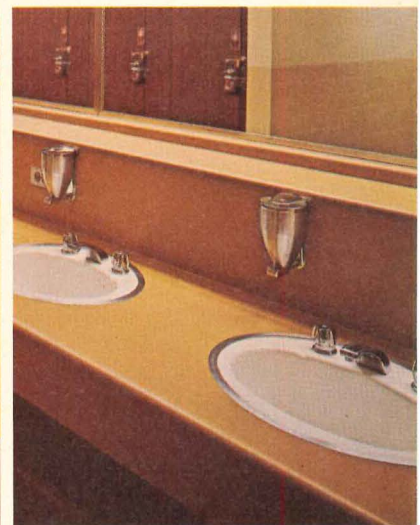
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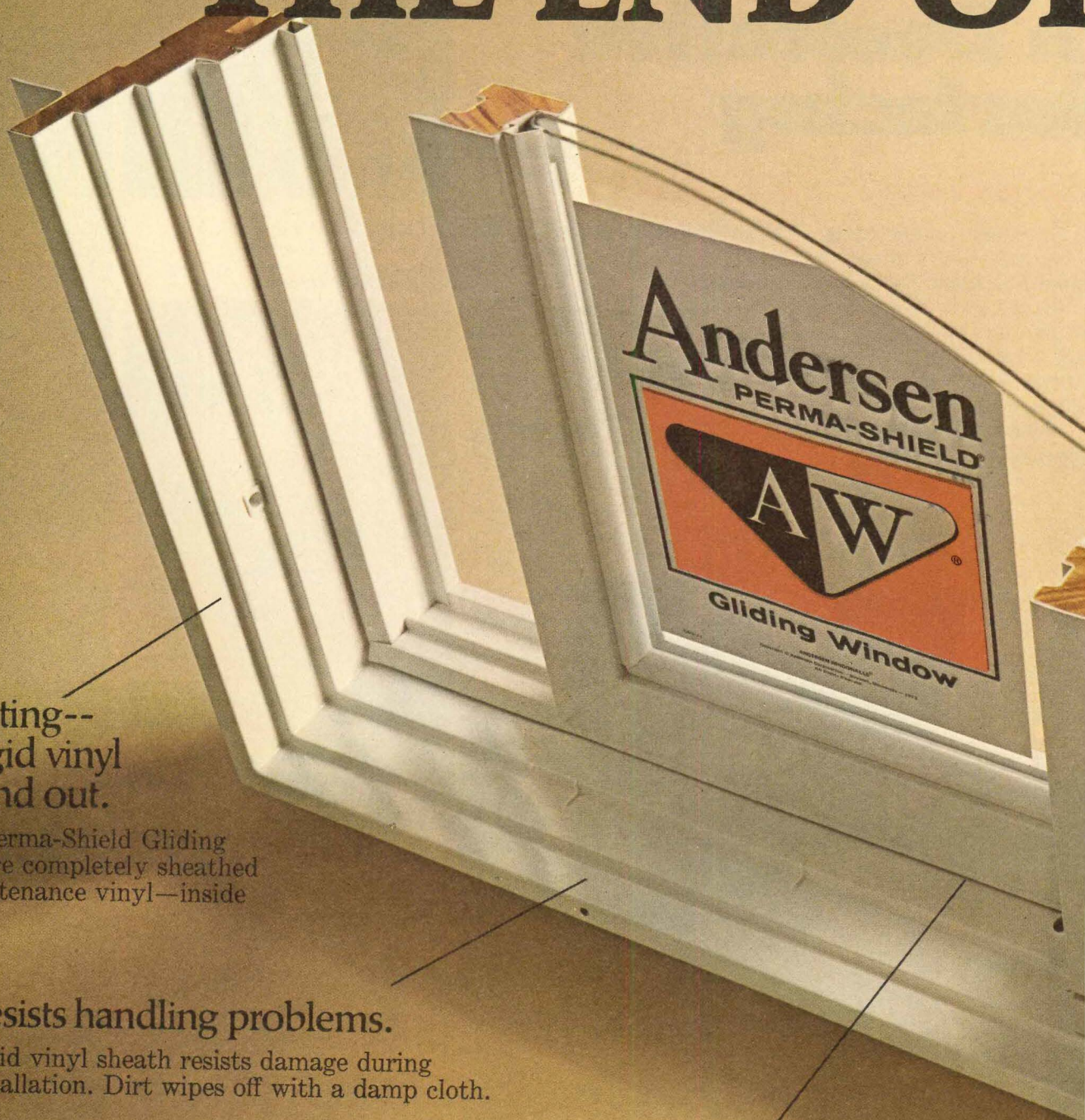


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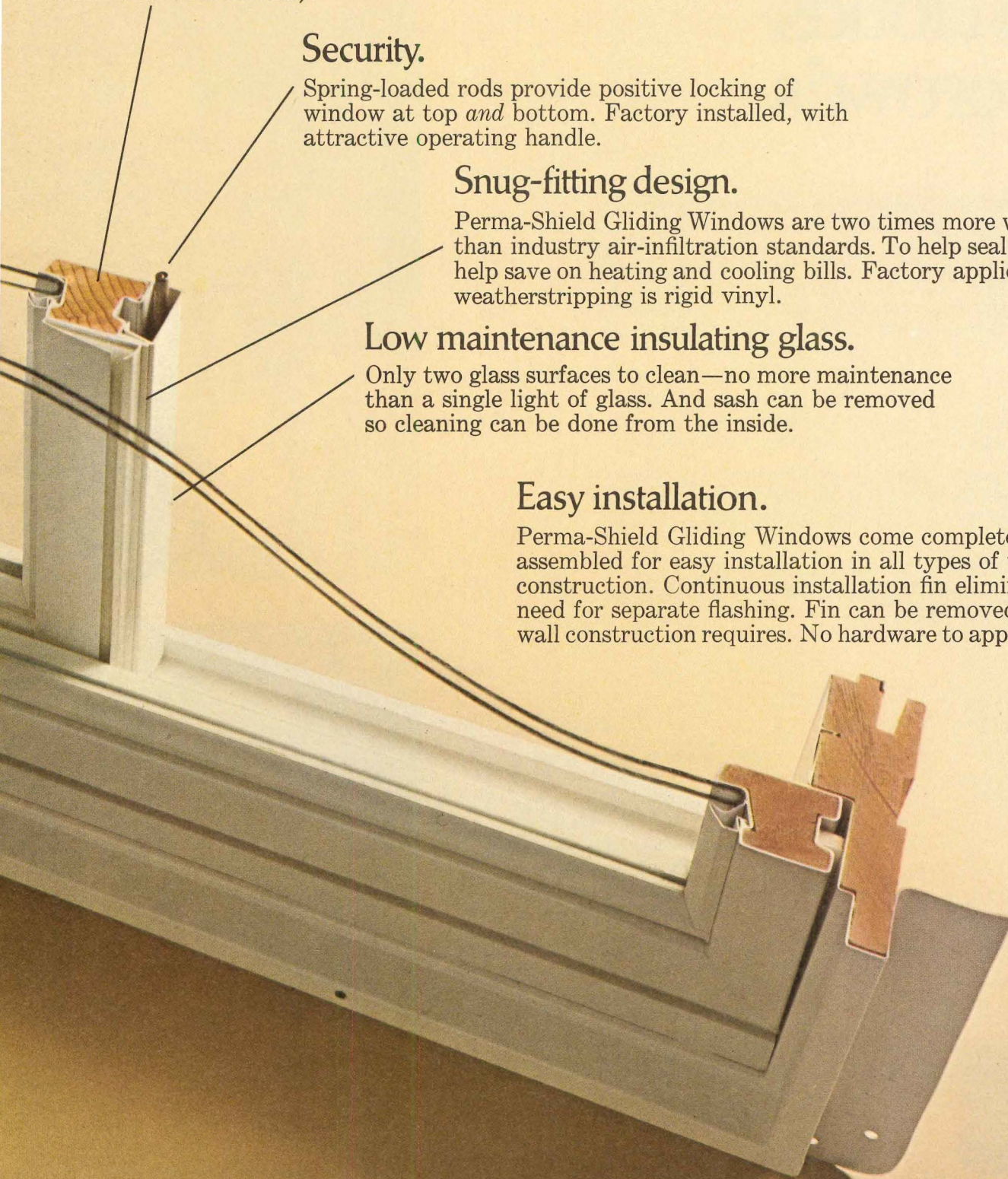
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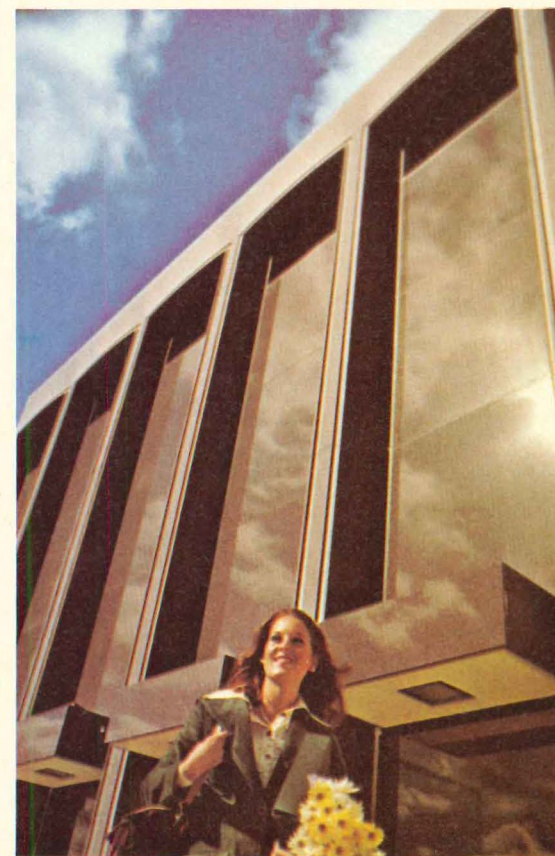
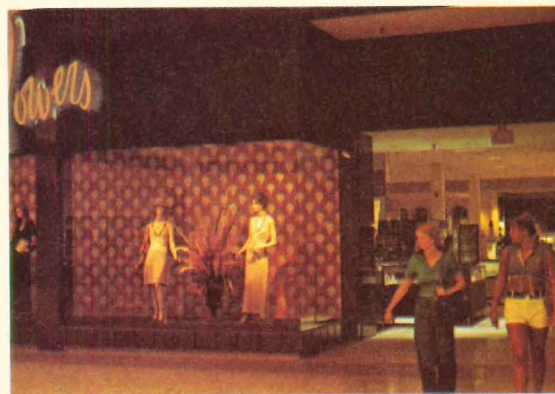
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providing, if not all the answers, at least a serious design experimentation that other architects should, and we hope will, follow.—Editor]

The image and the reality

At last an issue (P/A, Nov. 1974) on the substance of architecture! Many thanks for an informative beginning.

Most architects may not want to hear that we are ignoring a potential for making real improvements in the functioning of our buildings, and thus, in our daily lives. Whether or not we want to hear it, however, we need to find a way to spend more time, effort, and money on examining the issues of programming. Programming is the phase that develops most substantive progress. Discussing these matters in a frank way, with past mistakes clearly pointed out, is crucial to our profession's forward momentum.

Julia Williams Robinson
InterDesign Inc.
Minneapolis, Minn.

I have just read "Learning from experience: the evolution of housing criteria" (P/A, Nov. 1974) by Theodore Liebman and Alan Melting. I found it interesting but not so informative as I would have liked it to be. For example, it would have been helpful if your magazine had gone into some greater depth about the results of UDC's surveys, especially with respect to: 1) residents' need for more or less close relationship to outside play space in projects of varying densities, locations, and building types; 2) UDC's ideas about flexible interior space planning as they apply to differing unit types for different family types.

Our Agency does city building, too, but not at the scale of a UDC. We, too, have design and planning criteria which we developed for building location, unit mix, building type, exterior and interior spaces. But we have not seen fit to do follow-up surveys which would serve as the basis for revising our standards. Performance criteria are the new frontier for better mass scale, publicly sponsored architecture. They may even be seen as applicable to

other kinds of architectural problems. Though I am a close personal friend of Ted Liebman and also know Alan Melting and can get the information I want from them, by myself, I think P/A should do a follow-up piece on their work for the benefit of all of us.

Konrad J. Perlman
Chief of Planning
District of Columbia Redevelopment
Land Agency
Washington, D.C.

[The authors respond: We appreciate Mr. Perlman's desire for more detailed and explicit information on both child supervision and livability issues. Dr. Becker's report "Design for Living," which can be ordered through Cornell University's Center for Urban Development Research, will be helpful. Interdisciplinary research and evaluation (design professionals and behavioralists) with the goal of making housing issues explicit and available to guide future work, is long overdue.

We thank him and encourage others to promote and support this kind of work and its dissemination.—Theodore Liebman and Alan Melting.]

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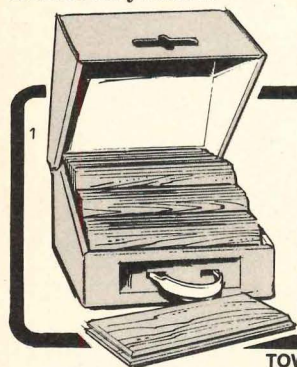
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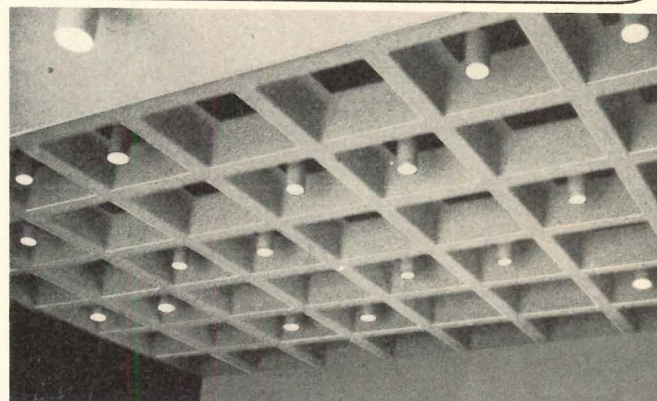
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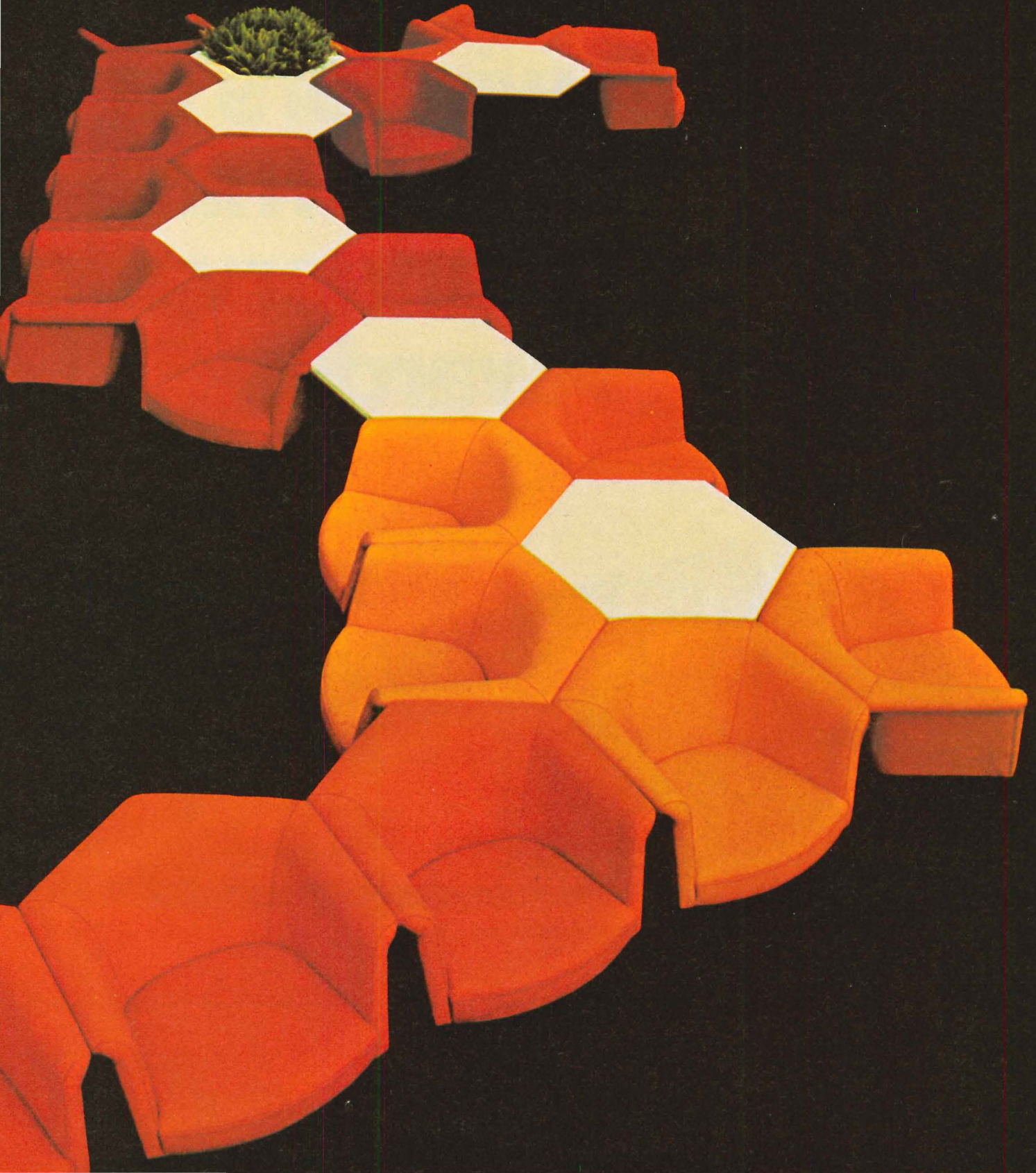


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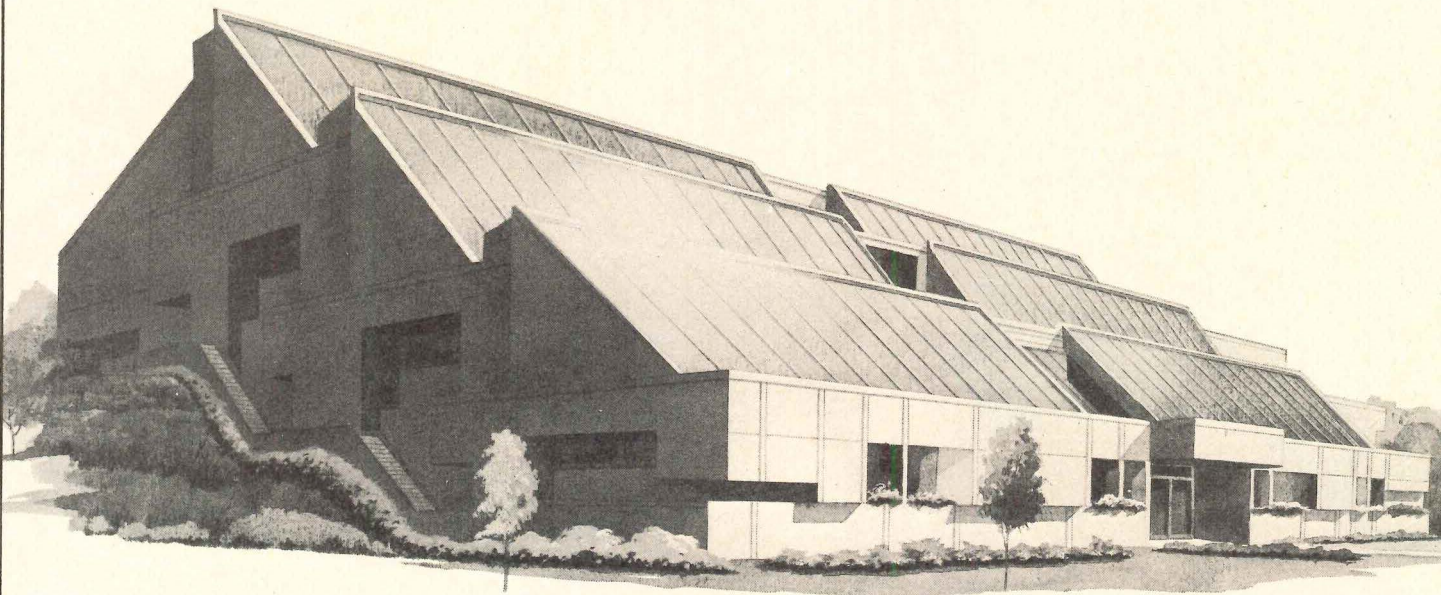
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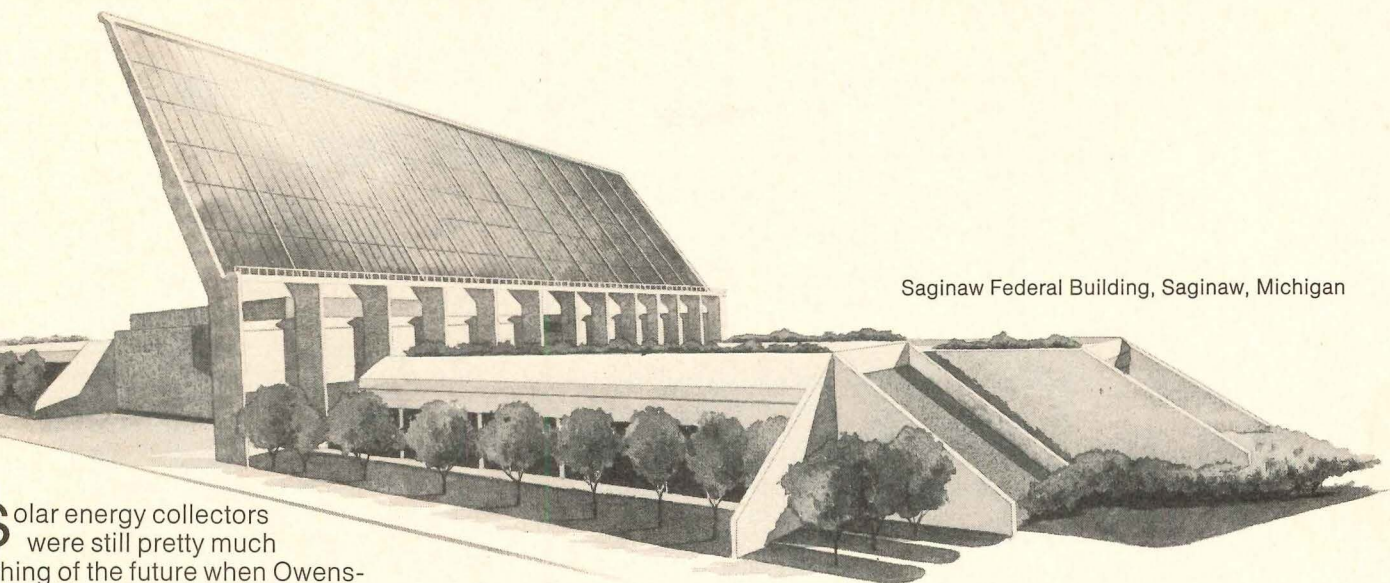



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tributes to low heat gain and loss. Design by Smith, Hinchman & Grylls Associates, Inc., Detroit.

Two Honorable Mention Awards

The Owens-Corning Energy Conservation Awards Jury found two other designs worthy of special attention.

Science Museum of Virginia, Richmond, Virginia. Combines a 28,000 sq. ft. solar energy collector with a heat-recovery system for heating and cooling. Expected energy operating cost: \$12,000 vs. \$50,000 for a conventional heating and cooling system. A saving of 75%.

Mechanical design by Hankins & Anderson, Inc., Consulting Engineers, Richmond, Virginia.

Denver Community College of Denver/North Campus, Westminster, Colorado. Combines a 50,000 sq. ft. solar collector with a heat-pump system to cut fossil fuel requirements by nearly 80%. Insulation maintaining an exterior wall U-value of .065 is used throughout.

Design by A.B.R. Partnership, Denver, Colorado.

How the Awards Program works.

Owens-Corning accepts entries in any of four building design categories:

Institutional—schools and hospitals, for example.

Commercial—office buildings, shopping centers, retail stores and similar structures.

Industrial—including manufactur-

ing plants, research centers, and warehouses.

Governmental—post offices, administrative buildings and military structures, among others.

Any registered architect or professional engineer in the U.S. is eligible to enter a design. The only requirement is that the design be a *commissioned* building project.

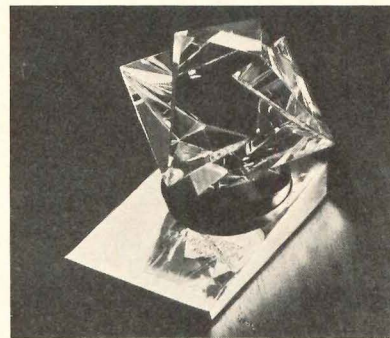
(The use of Fiberglas* insulation—although an excellent way to conserve energy—is not a requirement.)

Winners are selected by a special Awards Jury composed of leading engineers and architects.

Send for free Energy Conservation Awards Program brochure

If you'd like to know more about the winners, or their designs, write for a free brochure giving complete details.

Owens-Corning Fiberglas Corporation, Att. V.H. Meeks, Fiberglas Tower, Toledo, Ohio 43659.



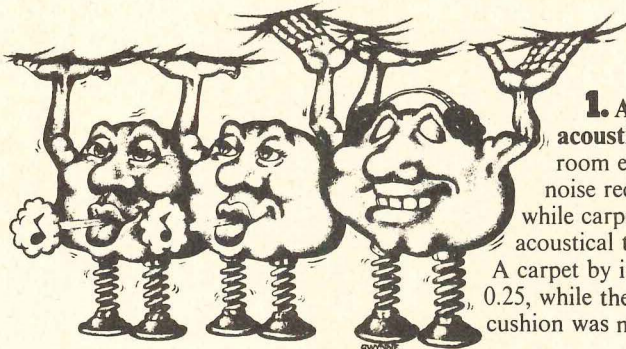
The Owens-Corning Energy Conservation Award: "Triangles," a multi-faceted Steuben Crystal sculpture that captures and reflects light from triangular planes.

Owens-Corning is Fiberglas

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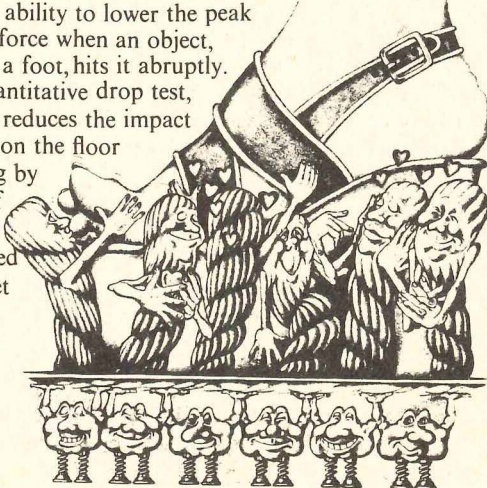
Before you pull the padding out from under another rug, read this.

Whenever your carpeting budget is up against the wall, the first thing you're tempted to do is pull out the cushion. Before you do, consider the underlying contributions carpet cushion can make to your next installation.

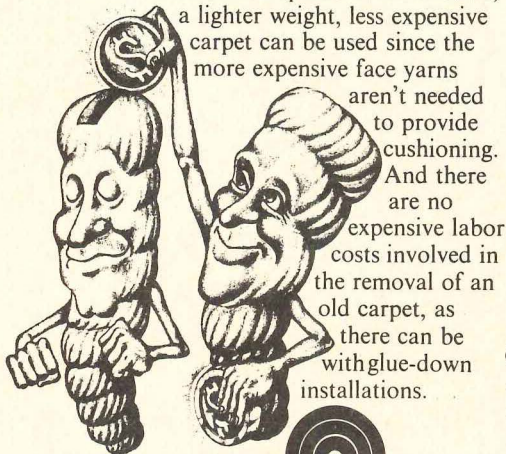


1. A carpet cushion more than doubles a carpet's acoustical properties. A carpet with cushion makes a room even more quiet. In tests to measure impact noise reduction, carpet only received a +14 rating, while carpet over cushion had a +25 rating. In a similar acoustical test measurements were taken for noise reduction. A carpet by itself measured a noise reduction coefficient of only 0.25, while the coefficient for a carpet over cushion was more than twice as great, 0.65.

2. Separate cushion makes a carpet seem thicker and more luxurious. It upgrades the carpet's underfoot feel and simply makes it feel better. Cushion also adds to the carpet's ability to lower the peak impact force when an object, such as a foot, hits it abruptly. In a quantitative drop test, cushion reduces the impact exerted on the floor covering by one-half when compared to carpet alone.

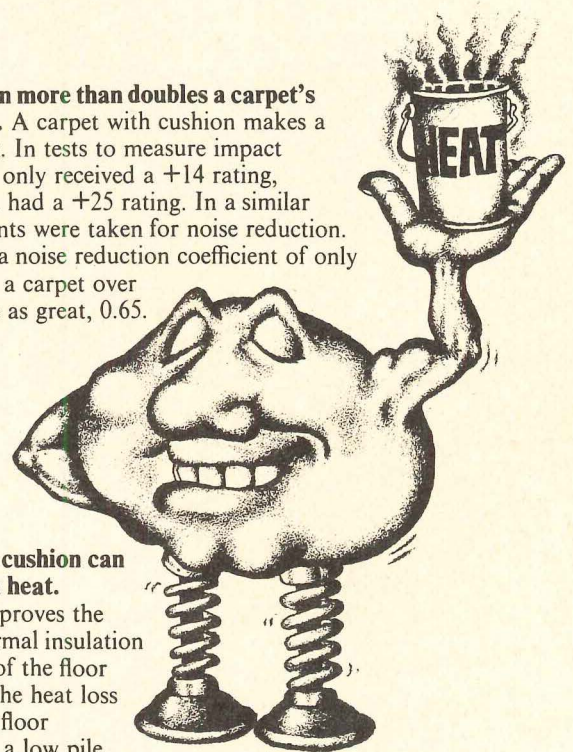


4. The initial cost of a cushioned carpet need not be more expensive. Instead of putting money into a sub-floor, you can put it into a cushion. A cushion plus carpet can mask surface irregularities so that a lower-grade, less costly finish on sub-floors can be specified. In addition, a lighter weight, less expensive carpet can be used since the more expensive face yarns aren't needed to provide cushioning. And there are no expensive labor costs involved in the removal of an old carpet, as there can be with glue-down installations.



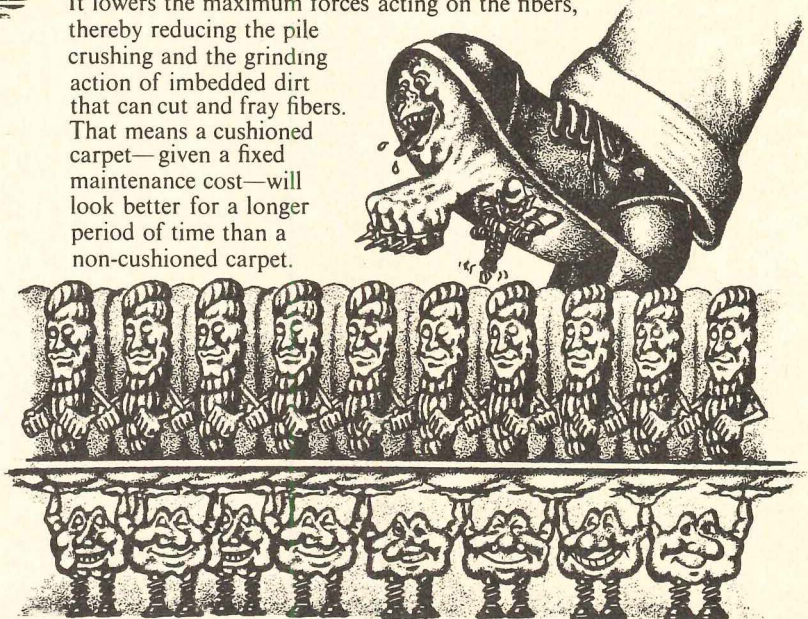
3. Carpet cushion can help retain heat.

Cushion improves the overall thermal insulation properties of the floor covering. The heat loss factor of a floor covered by a low pile carpet and a cushion is about one-third of what it would be with the same carpet alone.



5. Separate cushion makes a carpet easier to maintain.

It lowers the maximum forces acting on the fibers, thereby reducing the pile crushing and the grinding action of imbedded dirt that can cut and fray fibers. That means a cushioned carpet—given a fixed maintenance cost—will look better for a longer period of time than a non-cushioned carpet.



6, 7, 8. and more reasons why carpet cushion will add life, and cost less to install, can be found in our new brochure. For your free copy of "The Supporting Facts about Carpet Cushion," write: Carpet Cushion Council, P.O. Box 2048, Dalton, Georgia 30720 (404) 278-3176.

 carpet cushion council



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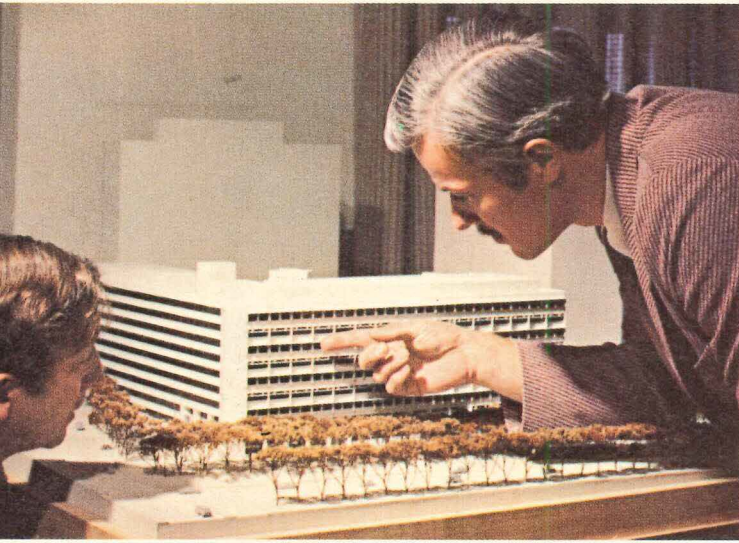
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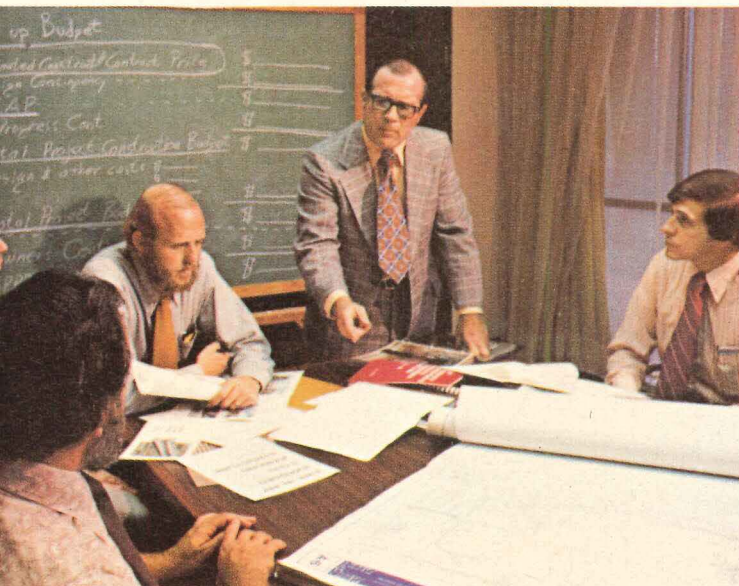
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Many new roofs waste a lot of energy. Here's how to cut that loss by 50 percent—without spending an extra dime.



It may sound amazing, but you can do it.

The only thing you have to do is specify thicker 2¼-inch Fiberglas* roof insulation instead of the thinner 15/16th-inch size.

This dramatically reduces heat loss through your roof. And it actually brings the total cost of your building *down!*

The reason: the improved thermal performance of your roof enables you to get along with less elaborate, *less expensive* heating and cooling equipment.

In general, every dollar you spend on thicker 2¼-inch roof insulation

vs. 15/16th-inch size cuts up to two dollars off original equipment costs. So you come out considerably *ahead.*

On a suburban office building in northern climates, for example, thicker roof insulation could save as much as \$27,000 in equipment costs for every 60,000 square feet of roof.

And, of course, the thicker Fiberglas roof insulation goes on slashing the loss of fuel energy through the roof of your building by 50 percent—and the fuel *bills* by roughly 10 percent—year after year after year.

The exact savings vary according to climate zone, the size and type of roof deck, "U" improvement, and the added cost of the thicker insulation.

We've worked up all the figures and charts in a handy booklet called "Roof Raiser's Guide to Cost Reduction." For a free copy, write: V. F. Meeks, Architectural Products Division, Owens-Corning Fiberglas Corp., Fiberglas Tower, Toledo, Ohio 43659.

More details: See our section in Sweets Catalog, Roof Insulation Systems 7.15/Ow, or contact your Owens-Corning representative.

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News report

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Calder-on-the-roof'

A good way to become familiar with the civic buildings in Grand Rapids, Mich., is to view Alexander Calder's largest painting, which covers the three-story-high rooftop of S.O.M.'s Kent County Administration Building. From the ninth floor of the nearby City Hall, also by Skidmore, the black, orange, and white composition measuring 127' x 127' may be viewed during regular office hours.

Other buildings suitable for inspecting the "Calder-on-the-Roof" include the Michigan Consolidated Gas Company and Old Kent, both by Daverman Associates, Grand Rapids; the Union Bank, by Carson, Lundin & Shaw, New York City; the Frey Building, by Wold, Bowers, DeShane & Covert, Grand Rapids; and the Federal Building, by Louis C. Kingscott & Associates of Kalamazoo. All have been erected within the last 10 years and form a complex called Vandenberg Center.

Work on the horizontal mural began in late May and was completed two months later. It complements Calder's 43-ft-tall stabile, "La Grande Vitesse" (The Grand Rapids), in Vandenberg Center plaza. Calder donated the design which was executed by a Grand Rapids industrial painting firm.

Photo: Martin Allen



Calder's rooftop mural on SOM's Kent County Administration Building, Grand Rapids

Art for people welcome in Chicago

Ever since William Hartmann of Skidmore, Owings & Merrill pulled a coup by persuading Picasso to donate a design for the plaza sculpture of the Chicago Civic Center, the city of Chicago has come alive with monumental works of art-out where people can enjoy them. A block away from the Chicago Picasso is the newly unveiled Chicago Chagall, a 70'x14'x10' mosaic mural standing free-form in the C. F. Murphy

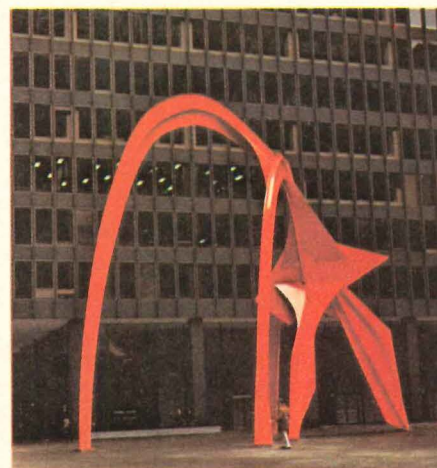


Photo: David Moy

Chicago Federal Center and Calder stabile

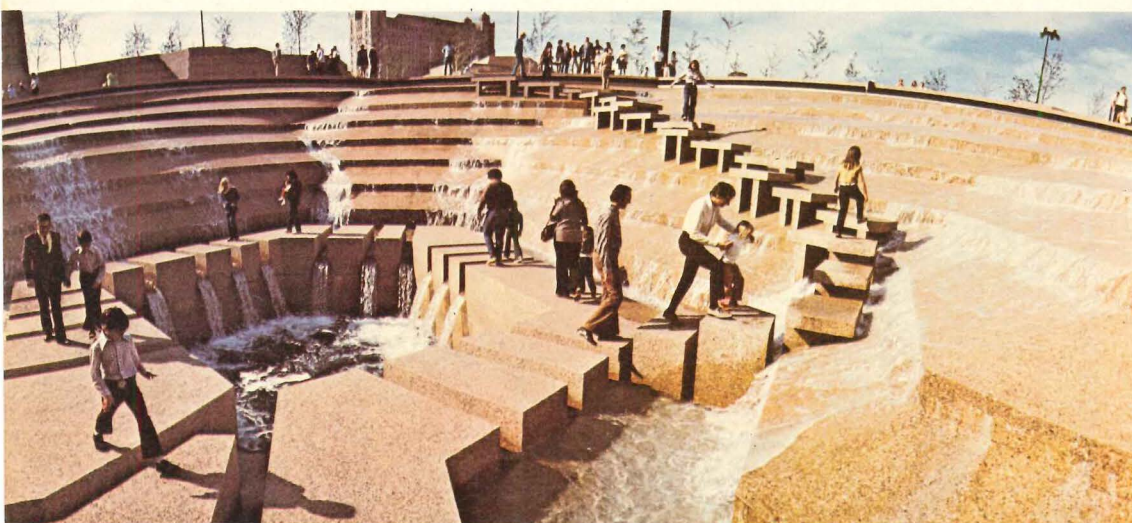
News report

Associates-designed sunken plaza of First National Bank of Chicago.

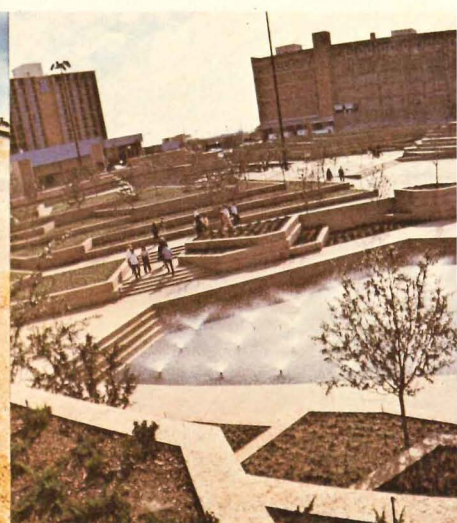
Just south, following a path of plazas, is Alexander Calder's new red stabile, "Flamingo," framed by the black towers of Mies van der Rohe's Chicago Federal Center. Several blocks west, another Calder has been installed, a "moving mural" driven by seven motors, in the lobby of SOM's Sears Tower. "Universe" is 33 ft high and spans 55 ft as its elements revolve clockwise and counter-clockwise.



Chagall mosaic of the four seasons in First National Bank of Chicago plaza



Active water cascades 38 feet



Aerating water sprayed from 40 nozzles

Big splash in Fort Worth

Another triumph was scored in Texas last October when its latest cultural event, was inaugurated by a social "do." The Water Garden by Johnson/Burgee of New York, gushed to life and heralded the advent of yet another civic place.

The result may serve as a potential *agora* for central Fort Worth. While the project itself is significant as a recent example of the work of the Johnson/Burgee firm, The Water Garden and its opening are very much in the Fort Worth tradition. Rarely in American cities is the direction of public life so clearly the result of efforts by civic-minded individuals who are concerned about making the urban setting unique.

The commission came through Johnson's earlier association with Fort Worth when he designed the Amon Carter Museum of Western Art and through Lady Bird Johnson's concern for civic beautification while she was First Lady. Her interest was picked up by Ruth Carter Johnson, who conceived of a public park to revitalize the small historic center of Fort Worth. In not an untypical response, when federal funds and motivation proved unavailable, the Amon Carter Foundation came forth to foot the bill.

Comprising some four and a half square blocks, the project is located to the south of the existing Convention Center, in an area bounded by free-ways and railroads, that is undergoing occasional redevelopment.

Essentially, the project embodies Johnson's discovery in his earlier gar-

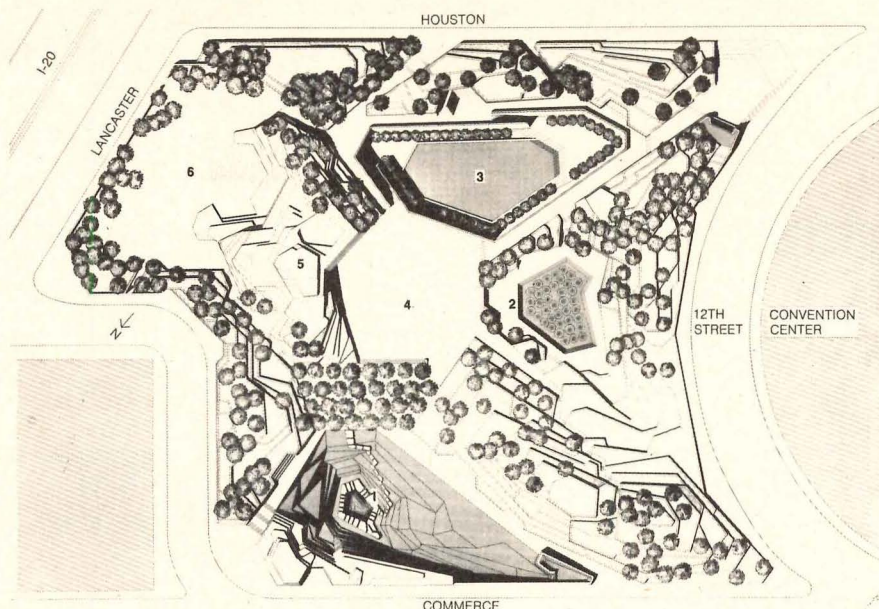


Ruth Carter Johnson at birthday (above)
Philip Johnson (below) at the opening.

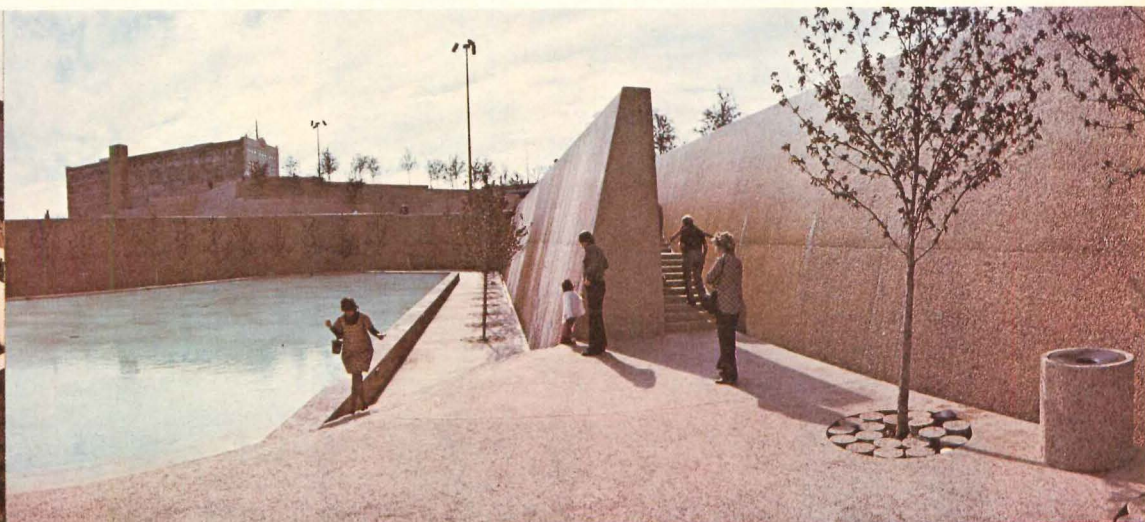


Legend

- 1 Active pool
- 2 Aerating pool with 40 sprinkler heads
- 3 Quiet pool
- 4 Central plaza
- 5 Concrete mound highest point of the site
- 6 Lawn



Photos: Peter Papademetriou



Quiet water washes over battered wall

den for New York's Museum of Modern Art of making a place seem larger by having people move up and down through changes in level. However, the form of The Water Garden relates to Johnson's latest work, consisting of a geometry more activated and dynamic than that of his so-called "Miesian" period. Ever unabashed to use a good idea, Johnson might be said to be "Learning from Larry" (Halprin, that is) yet the result bears Johnson's touch.

He probably would have kept the garden closed for five years, during which time the tiers of plantings and formal groves of trees would have grown to the necessary mass to function as space makers. Fortunately, he did not have his way.

The garden contains water displays which comment on the sensual qualities of the element. The most spec-

tacular use, and one which invites crowds of people, is the active water pool edged by a 720-foot trough from which a sheet of water cascades down tiers—a total drop of 38 feet below grade—at which point it produces a resounding roar. An aerating pool generates water which sparkles from 40 nozzles. The third area is a quiet pool 16 feet below grade. Such a seminar on water appears even more significant in a region like the Southwest.

The design's "big splash" aspects are a reflection of the achievement-oriented civic pride characteristic of Fort Worth. The city received the gift, and its Parks and Recreation Department will handle operations. To its patrons, The Water Garden opening also was the occasion of Ruth Johnson's birthday. Therefore, it stands not only as a gift to the City of Fort Worth, but also

as a happy event for a devoted group of people who have proved that their intervention can better the urban scene. [Peter Papademetriou]

HABITAT Expo set for Canada-'76

"HABITAT—The U.N. Human Settlements Conference—Exposition, 1976," will be held at the University of British Columbia in Vancouver May 31 to June 11, 1976. The first formal meeting of the Preparatory Committee, consisting of 58 governments, is scheduled for Jan. 15 this year, and it is expected a clear framework for the conference will be established. The second half of 1975 will be spent completing position papers and preparing audiovisual materials, which promise to be superabundant and, in many

cases, made available on request after the conference.

The films and slide presentations from each participating government will document growth of human settlements. Actions that take months and years in the field, for instance, can be shown on film in minutes giving viewers the opportunity to "see for themselves" the processes involved.

Correspondents add to P/A's coverage

Several new names will appear this month on the P/A masthead, along with those of individuals who regularly have kept the magazine informed of developments on the West Coast. The new regional correspondents are Antonin Aeck, Southeast; James Bailey, Mid-Atlantic; George McCue, Midwest; Peter Papademetriou, Southwest; and Ralph Warburton, Florida. They join contributors Esther McCoy, Roger Montgomery, and Sally Woodbridge.



Antonin Aeck

Mr. Aeck is a practicing architect in Atlanta, Ga., and edits INFO, the newsletter of the Atlanta Chapter of the American Institute of Architects. He received a bachelor's degree of Arts and Architecture *magna cum laude* in 1971 from Rice University and was elected to Phi Beta Kappa. While in Houston, he worked with Caudill Rowlett Scott and participated on a publication, "The Barrios," for Houston's Mexican-American community. He also serves on the AIA's National Committee on Design.



James Bailey

Mr. Bailey, former managing editor of *City* magazine, published by Urban

America Inc., and former senior editor of *Architectural Forum* magazine, currently is head of The Associates, an editorial and graphic design consulting firm in the Washington, D.C. area. Mr. Bailey received a bachelor's degree in journalism from Armstrong College, Berkeley, Calif. He began writing about architecture and urban design in the 1950s and from 1954-59 served as associate editor of the *Daily Pacific Builder*, San Francisco.



George McCue

Mr. McCue, arts and urban design critic of the *St. Louis Post-Dispatch* since 1956, won the first AIA citation for architectural criticism in 1968, and in 1973 was cited for a special award from the National Trust for Historic Preservation. In 1958 and 1959 he won first prize, newspaper category, in the AIA's National Journalism Competition. In addition to P/A, his articles have appeared in *Architectural Forum*, *Landscape Architecture*, the *AIA Journal*, *Inland Architect*, *Art in America*, and *Historic Preservation*.



Peter Papademetriou

Mr. Papademetriou is an associate professor of architecture at Rice University and a registered architect, holding a bachelor's *cum laude*, 1965, from Princeton University. He began writing about architecture as editor of *Perspecta 12*, the Yale Architectural Journal, in 1969 following receipt of his master's degree in 1968 from Yale's School of Art and Architecture. He has edited and designed several monographs and contributed frequently to the professional press. Recently he became an associate partner of Architects Inc. hoots & Associates.



Ralph Warburton

Mr. Warburton is professor of architecture and planning, and chairman of the Department of Architecture and Architectural Engineering at the University of Miami, and is engaged in the private practice of architecture. Under his leadership, the university's graduate program of Urban and Regional Planning was established in 1973 and accredited a year later. A graduate of MIT he holds masters' degrees in architecture and planning from Yale.



Esther McCoy

Esther McCoy, a contributor to P/A since 1969 ("Architecture West") has a distinguished career of architectural journalism which includes books, magazines, exhibition catalogues, and films. Praeger will come out this year with a new edition of her book, published in 1960 by Reinhold, *Five California Architects*. Also scheduled for publication this year, by Peregrine Smith, are *Letters between R.M. Schindler and Richard Neutra*.



Sally Woodbridge

Sally Woodbridge, co-author of *A Guide to Architecture in San Francisco and Northern California*, published in 1973, is a doctoral candidate in architectural history at the University of California, Berkeley. She received her bachelor's in art history from Duke University in 1951, and studied on a Fulbright at the University of Paris. [continued on page 29]



ASG LIGHTING GLASS

The Glass Company puts quality and safety where you need to see it.

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light, neutral color composition that combine to produce a truly comfortable visual environment.

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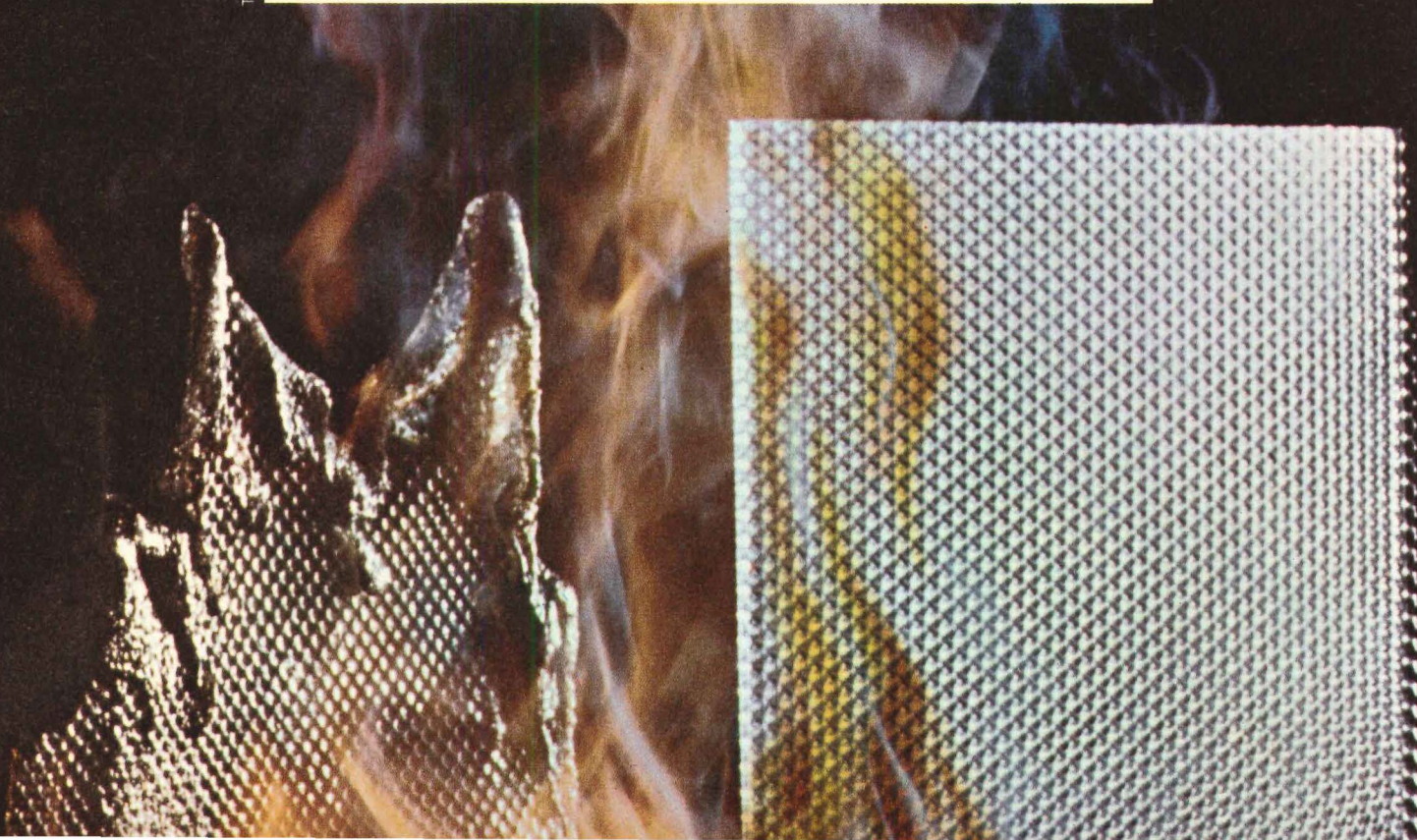
Write for ASG's Lighting Catalog. It contains details on these and other quality lighting products to help you see just what we're talking about.



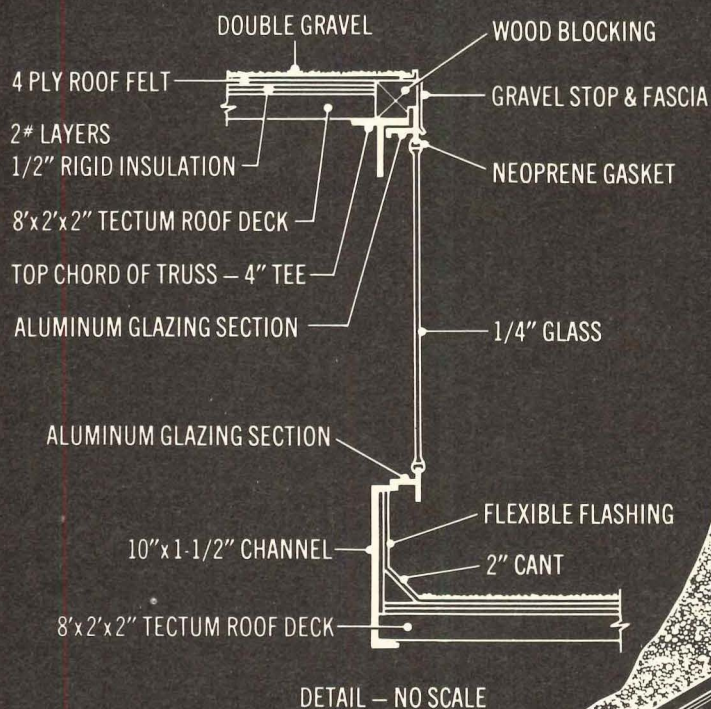
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THIS PHOTOGRAPH IS A DRAMATIZATION



Tectum: decorative, insulating



At Gund Hall, Harvard's Graduate School of Design, Tectum was used as a structural roof deck and exposed ceiling in this unique and distinctive canopy of glass and steel. Toronto architect John Anderton specified 2" thick Tectum to span the translucent roof truss enclosures and develop a thin profile for the stepped roof section. The diagram shows how this section was constructed. In the open central studio space, Tectum's solar absorption is an important factor. Its NRC is in the .50-.60 range.

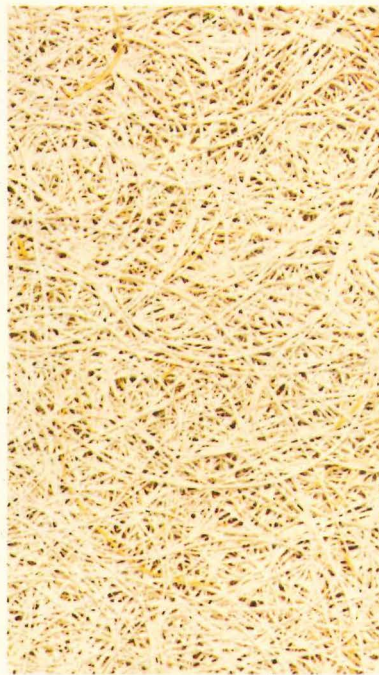
SEE DETAIL ABOVE

#218 BULB TEES 24" O.C.

8'x2'x2" TECTUM PLANKS

10"x1-1/2" CHANNEL

ructural, acoustical.



Gund Hall Graduate School of Design, Harvard University, Cambridge, Mass.
Architects: John Andrews, Edward R. Baldwin and John Simpson, Toronto.
Structural Engineers: Le Messurier Associates, Boston.
Tectum Contractor: Bay State Structural Specialties, Boston.

Texture is the thing about Tectum, but not the only thing.

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(SKYLIGHT)

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OF TRUSS
12" DIAMETER
PIPE 24' 0" O.C.

There's no end to the ways you can be constructive with Tectum® Roof Deck. Look at the way it was used in Gund Hall, shown at left. As a structural material, Tectum gives the roof a thin, efficient section, and demonstrates impressive insulating values as well. In the two-inch thickness, resistance to heat transmission is 3.50. With its Noise Reduction Coefficient in the .50-.60 range, it soaks up sound. And with its rugged finish, Tectum looks good exposed.

The reason Tectum is so constructive is because of the way it's put together. An exclusive inorganic binder bonds long wood fibers into a compact sheet under heat and pressure. Like wood, it's easy to cut, shape and install. Tectum has been given an uplift rating of Class 90.

Long Span Tectum Roof Deck

Tectum is also available in Long Span® Tectum. This adaptation allows even

greater areas of the exposed Tectum surface to remain unbroken by purlins. Tongue and groove edge of Long Span Tectum is designed for galvanized 16-gauge steel channels. These channels permit spans of up to 6' for 3", 5' for 2½", and 4' for 2" thick Long Span Tectum.

Like other Tectum Roof Deck, Long Span Tectum has factory-applied asphalt felt membrane, and is applicable to flat or pitched roofs with steel, wood or concrete framing.

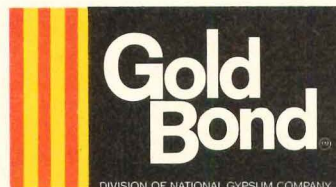
So for a good-looking way to cut roofing costs, why not cut down on the number of materials you use? With Tectum, or Long Span Tectum.

Tectum is one of the reasons that we're gypsum and then some.

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Roger Montgomery is professor of urban design at the University of California, Berkeley. He was associate editor of *Transaction*, a social science journal, from 1969-70, and was also a correspondent for *Architectural Forum*.

Both Sally Woodbridge and Roger Montgomery joined P/A last year as contributors.

Atlanta memo: of booms and battles

The Atlanta boom is busted. Fifty architects attended a "Professional Survival" meeting in November where they talked *to* instead of *about* each other for the first time in years. Major topics of discussion: marketing, lobbying, and joint ventures. Minor topic: food co-ops. The numbers tell the story. An AIA survey of Atlanta architectural firms shows a 14 percent de-

cline in numbers of employees between March and November, and firms of 20 and under were down 23.5 percent. The big boys are better off proportionally since they did little housing. A gala commiseration get-together was planned for December when the AIA hired a movie house to screen "The Towering Inferno."


A big ego battle is shaping up between Atlanta's two John Portman hotels, which stand a block apart. The new half-completed Peachtree Plaza owned by Portman Properties already has announced the pre-booking of 400,000 convention-room nights, some as far in the future as August 1986. Refusing to take their 70-story competition lightly, The Hyatt Corporation has decided to spend half its yearly updating budget—or a cool \$5 million—to renovate and redecorate the 8-year-old Hyatt Regency Atlanta, which has enjoyed a 98 percent occupancy rate.

Mayor Maynard Jackson of Atlanta

recently spent a weekend in a ravaged public housing project and afterwards criticized the architects for a "shoddy" job. Demanding an apology, a representative of Sheetz & Bradfield (design) and Wise, Simpson & Aiken (supervision) was quoted as saying "the problems are not bricks and mortar; the problems are flesh and blood." Several news articles ensued on what appears to be an architectural horror story (\$1 million is going to be spent to correct site drainage problems, for example) and the mayor had the last word: "The main problem is having a living environment that people care enough about to want to keep clean." [Antonin Aeck]

DMJM co-founder dies at age 62

S. Kenneth Johnson II, co-founder and chairman of the board of Daniel, Mann, Johnson & Mendenhall, Los Angeles, died Nov. 1 at the age of 62. With his



Cabot's BARN BOARD STAIN

In answer to the demand for a stain that will simulate the weather-beaten appearance of old barns, Samuel Cabot Inc. has developed Cabot's #1299 Barn Board Stain. This new stain is antique gray in appearance, has a darker and more weathered look than the other grays in the Cabot line. Cabot's Barn Board Stain is a uniquely transparent stain that accents the variations and irregularities of the wood surface, producing the soft, aged look of old barns. It is particularly effective on rough-sawn lumber. This new stain has many applications . . . provides rustic atmosphere for interiors or exteriors . . . for paneling, beams, siding . . . for homes, vacation cottages, motels, restaurants.

Samuel Cabot Inc.
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Cabot's #1299 Barn Board Stain is suitable for all wood surfaces . . . and is available in pint, quart, and gallon containers.

News report

passing, it is expected DMJM will undergo a major change in management. One other original principal is deceased, Phillip J. Daniel, and one, Arthur E. Mann, has retired.

Johnson's vision pioneered his firm into the aerospace and industrial field with installations at the Kennedy Space Center, Vandenberg Air Force Base, and the McDonnell Douglas Space Systems Center at Huntington Beach. The firm in a joint venture designed the National Accelerator Laboratory.

His interest in students led to the formation of the DMJM Mentorship program, one of the first, in which students at the University of Southern California received scholarships and on-the-job training.

New towns plagued by inflation, red tape

New towns are in trouble. Riverton, near Rochester, N.Y., already has collapsed, and several others are in a

similar state of jeopardy.

Seven new communities of the 1970 Housing Act's Title VII applied to HUD for more bonding guarantees, but Riverton caved in before its request could be acted upon. Others that are in grave danger of the same fate include Jonathan, Minn.; Cedar-Riverside, the new-town-in-town near downtown Minneapolis; Park Forest South, Ill.; Gananda, N.Y., and St. Charles, Md. Soul City, the innovative black-sponsored new town in North Carolina, appears to be in no immediate difficulty, but it must come up with 300 new jobs before HUD will allow it to take out the next increment of its \$14 million funding.

Riverton's demise came when the U.S. Department of Housing and Urban Development (HUD) and a Rochester bank abandoned their negotiations for new financing. Its population had reached about 1000—only a fraction of the 27,000 projected upon its completion in 16 years. The existing residents face no financial loss, but there is little chance that the self-sufficient community they thought they were buying into, including a "metro-

politan-scale" downtown, will happen.

Like most of the 14 other new towns whose bonds are guaranteed under Title VII, Riverton was plagued by inflation and tight money. Mismanagement has also been a factor in the difficulties.

The decline of homebuilding and scarcity of mortgage money has made it difficult for the new communities to sell enough houses and attract sufficient industry to raise revenue for debts coming due. Added to this (many of their developers charge) has been HUD's failure to supply other grants and planning assistance that Congress wanted them to have. The aborning new town will need much more than federal bond guarantees to grow and flourish. Massive, outright grants of federal monies may be the only answer, but there is little evidence that Congress is prepared to pay that price. Thus the new towns movement, which showed hope of providing a better alternative than suburban sprawl, may never have a chance to prove or disprove the claims its supporters have made. [James Bailey]

[News continued on page 32]



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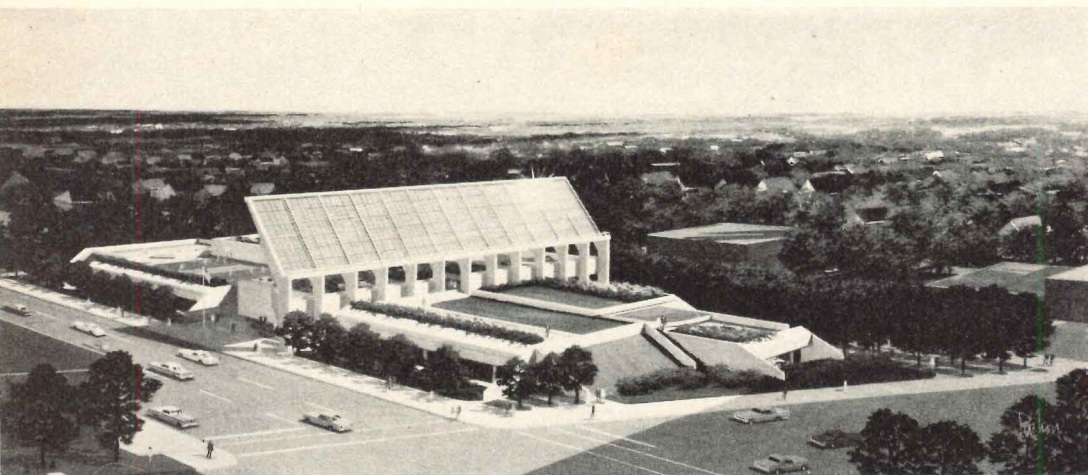
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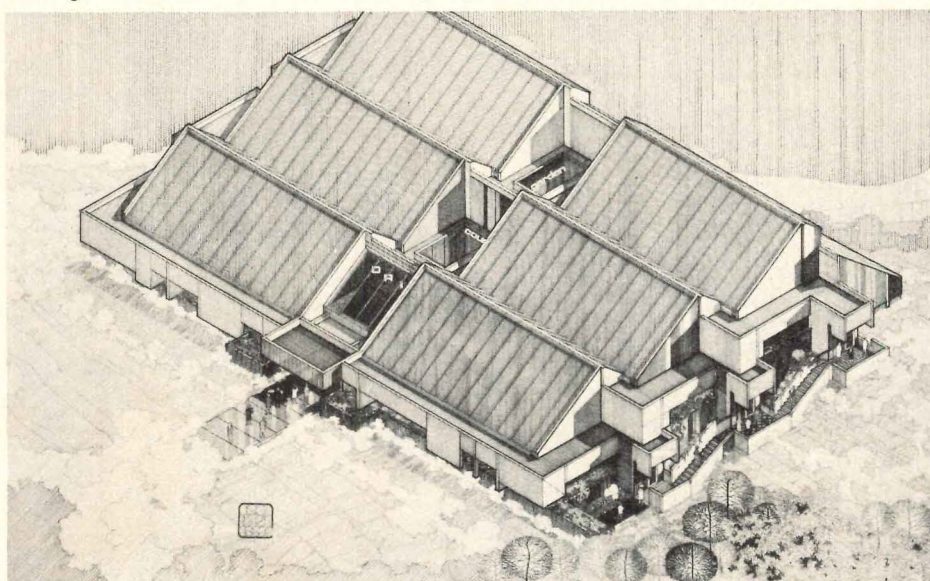
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Plantings cover half the roof of award-winning Saginaw Federal Building



Desert Research Institute of Nevada wins an Owens-Corning first place award

Owens-Corning winners announced

Smith, Hinchman & Grylls Associates Inc. of Detroit has won first place in the governmental category of the annual Energy Conservation Awards Program sponsored by the Owens-Corning Fiberglas Corporation, and Jack Miller & Associates of Las Vegas won first in the institutional category. For the first time, no winners were named in the industrial or commercial categories.

The eight-man jury included Smith, Hinchman & Grylls president Philip J. Meathe, who reportedly did not know his firm had entered the competition until just before the judging. He abstained from judging the governmental category. Other jury members were George Heery of Heery & Heery, chairman; Walter Costa of Skidmore, Owings & Merrill; Dr. Donald Greenberg,

professor of architecture, Cornell University; H. Fred Campbell of H.F. Campbell Company; Sital Daryanani of Syska & Hennessy Inc., engineers; Richard Mullin of Symmes, Maini & McKee Inc.; and Thomas Stokes of Cary B. Gamble Associates Inc.

Smith, Hinchman & Grylls won for its design of the Saginaw Federal Building in Michigan (a P/A Awards citation winner a year ago). Jack Miller & Associates, in association with Arthur D. Little Inc., won for the design of the University of Nevada Systems Desert Research Institute, Boulder City.

Two honorable mentions were awarded in the institutional category: to the A-B-R Partnership, Denver, for the Community College of Denver/North (P/A June, 1974 p. 25) and to Hankins & Anderson, Inc., Richmond, Va., for the mechanical design of the Science Museum of Virginia.

Architectural research fellowships

The University of Michigan's doctoral program in architectural research is offering two fellowships for next year. One, for health care facilities research, provides \$5000 per year plus tuition for three years. The other, offers the same benefits for research on the behavioral responses of the elderly to their physical environment. Deadlines for applications are Feb. 1 (Write care of Stephen Paraskevopoulos, Chairman).

Calendar

Jan. 19-23. Thirty-first annual convention and exposition of the National Association of Home Builders, Dallas.

Jan. 26-29. Conference on tall buildings and the growth of cities, Honolulu, Hawaii. Conference is sponsored by the Joint Committee on Tall Buildings.

Feb. 21-23. Annual convention of the National Home Improvement Council, Inc, Houston Oaks Hotel, Houston.

Apr. 9-10. Symposium on the restoration of historic concrete structures, Boston. The symposium is held as part of the American Concrete Institute meeting with additional sponsorship by the Association for Preservation Technology, National Park Service, and National Trust for Historic Preservation.

Apr. 14-16. National Interfaith Conference on Religion and Architecture, Hilton Palacio del Rio, San Antonio.

Apr. 23-28. Twenty-eighth annual meeting of the Society of Architectural Historians, Copley Plaza Hotel, Boston.

May 18-22. Annual convention of the American Institute of Architects, Atlanta, Ga.

Personalities

Kenneth S. Dash has been named executive director of The Masonry Institute, Inc., Washington, D.C.

J. Raymond Matz, AIA has been appointed to the Zoning Board of Appeals for New Castle, N.Y. Mr. Matz is with Perkins & Will, White Plains, N.Y. Fitzhugh Scott, AIA has been elected a regent of the Milwaukee School of Engineering.

[News continued on page 34]



If new **Carlstadt** acrylic/wood mouldings look like real wood, that's simply because they are. Real oak, ash, or walnut.

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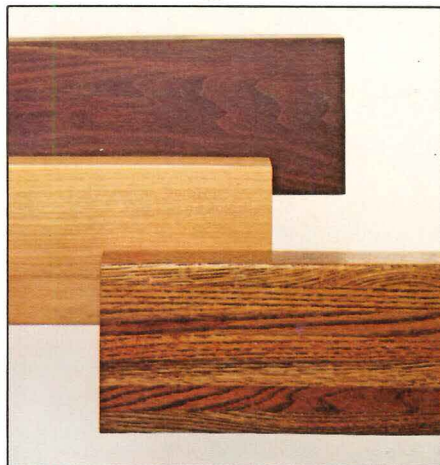
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Report from London

The lightweight fifth story addition that architects Piano & Rodgers designed for a 1920 building on Aybrook St. in London has one thing in common with the firm's most ambitious project, the one million-sq-ft Cultural and Information Center at Place Beaubourg, Paris. Both employ products and technologies out of context—such sources as bridge building, boat buildings, and the automobile industry.

Models of the Place Beaubourg Center suggest an implosion of New York's old Third Ave. El., while the Aybrook St. addition is a straightforward billboard of the Osaka Express. The design of the addition was complicated first of all by a building authority ruling which would not allow the addition to be hung from a truss. However, a 15-degree wall incline allowed the surface to be treated as roof and also exempted the materials from the two-hour fire rating. This made the building feasible, or otherwise the existing foundations would not have supported it.

The parapet wall was removed, and then a ring beam installed to counter the outward thrust. A floor of steel decking was suspended above the existing roof, with a 9-in. work space left between for threading the services through. The unevenness of the roof was taken care of by adjustable jacks. In one morning, the shop-fabbed steel arch forms were lifted, each in a single piece, and placed 10 ft o.c. The sandwich panels then were lifted into posi-

tion. The panels are a product of the automobile industry. Used normally as truck panels, they have a more sophisticated and quicker assembly system than similar products from the building industry, the architects claim.

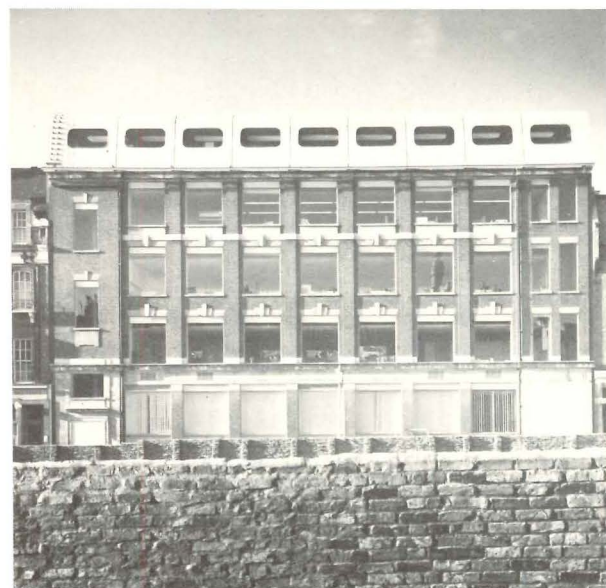
Borrowed from a builder of portholes and boat windows are the pre-formed aluminum windows. According to the architects, the boat building industry has a more flexible approach to design and a less rigid product-line system; and unlike the products of the building industry, quality is the highest.

An 8-ft grid of work stations, with telephone and two electrical outlets, occurs throughout the floor, and an existing fire stair at the back was enclosed in a glass cage to become the main entrance to the upper floors.

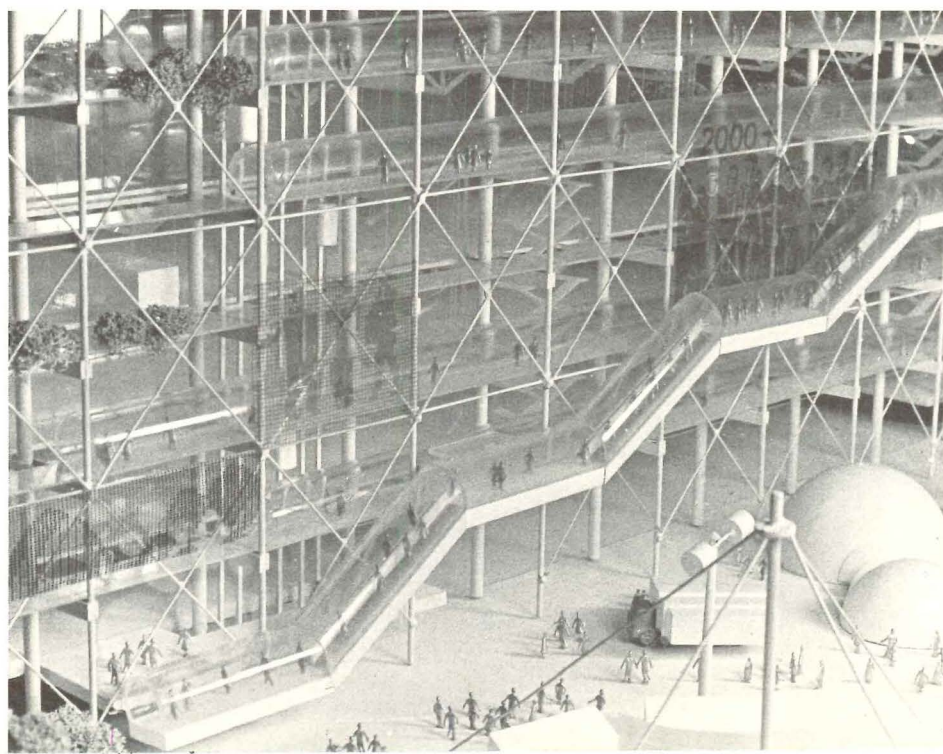
Keen interest in the Place Beaubourg Center stems in part from a skepticism about competition winners really getting built. There is still little above ground at Place Beaubourg except some compression columns, but over half the \$75 million budget had been committed in orders and 150-ft steel beams for a structural system borrowed from bridge building are arriving one a day on special trains from Germany. Japan is making the escalators, the ones for exterior vertical circulation to be enclosed in 12-ft diameter glazed tubes. Switzerland is building a glazing system with automatic blinds. [Esther McCoy]
[News continued on page 36]



Addition (left) to Aybrook St. Building, London, uses 6" x 10" rolled hollow steel sections to span 44 ft from front to back. Angled façade reads as mansard roof. Place Beaubourg (below) now under construction in Paris.



Photos above: Richard Einzig



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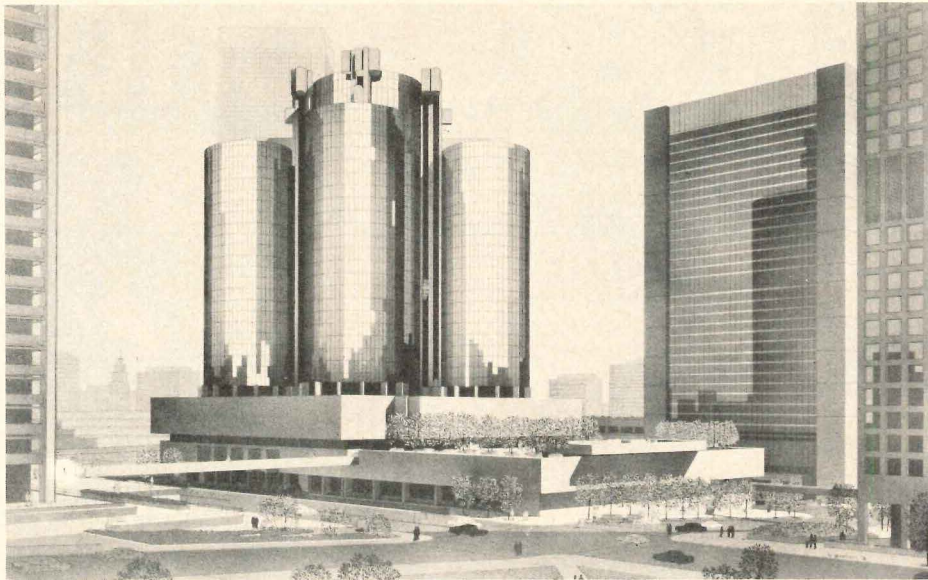
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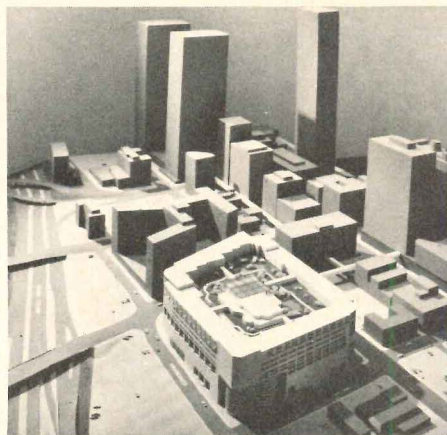
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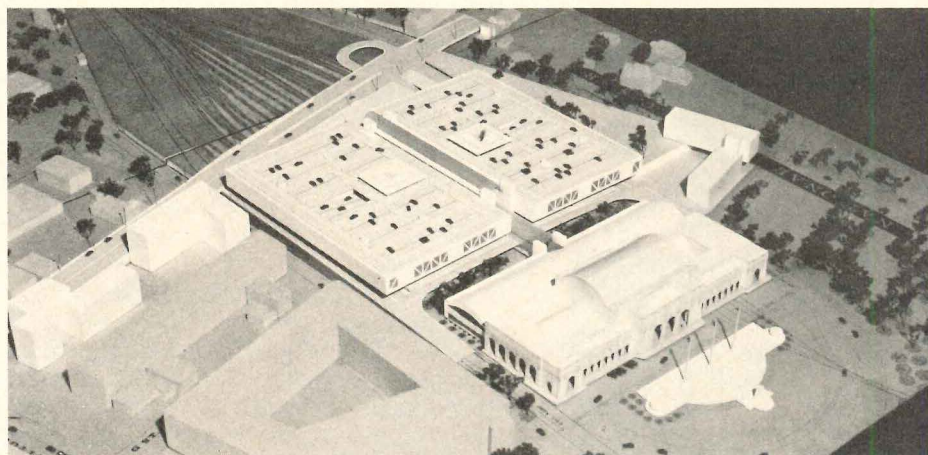
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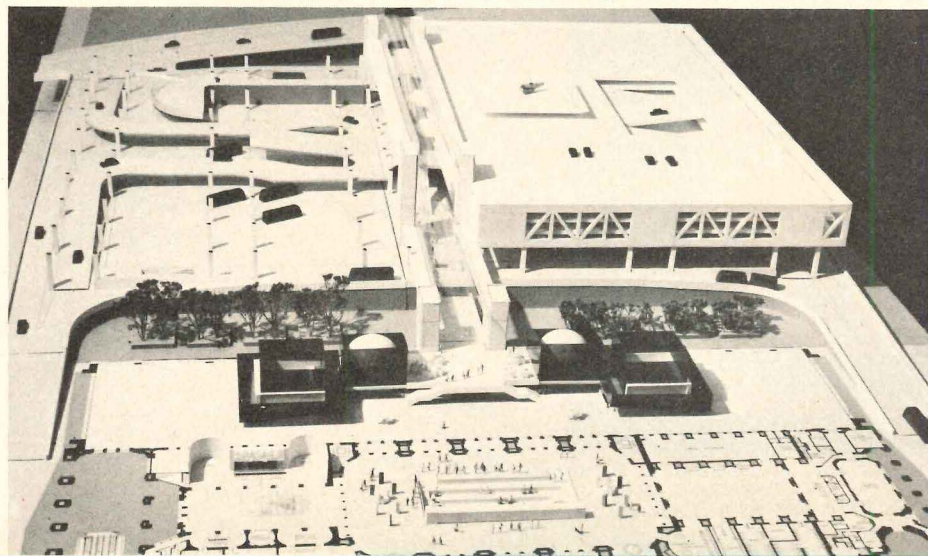
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2



3 Overall view of Union Station project and (below) the interior plan

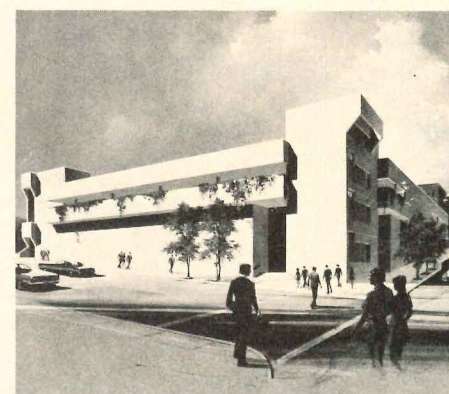


1 Another Portman—Construction has begun for a hotel-retail center by architect-developer John Portman of Atlanta. The \$100 million, 35-story complex in the Bunker Hill area of Los Angeles will consist of a concrete podium structure housing retail shops and convention facilities out of which five mirror glass towers will rise. Characteristic Portman features such as a central atrium, revolving skyview restaurants, indoor-outdoor elevators, and pedestrian bridges will be included. Completion: 1977.

2 The Centrum—A \$125 million office-hotel-retail complex will break ground in downtown Los Angeles in late 1975, a project of Karam Ventures (formed by KarCo of Los Angeles and Amoco Realty of Chicago). The architects are Arcop Associates of Montreal in association with Gruen Associates of Los Angeles.

3 National Visitor Center—The historic Union Station in Washington, D.C., is being remodeled to serve as a national welcoming center and will be the first totally "intermodal" facility in the country. As such it will provide connections to surface transportation and include a heliport and Metro subway station. Over the railyards, a new railway terminal and a parking facility for 4500 vehicles are being constructed. Architect for the project is Seymour Auerbach, Washington.

4 Going up in North Carolina—The McDowell County Administration Building is a poured-in-place concrete structure using a recovery system that recycles lighting heat. The building in Marion, N.C., is by Kyle C. Boone/Architect Weaverville.



4

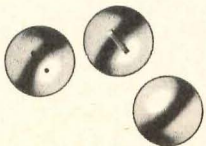
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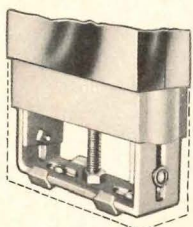
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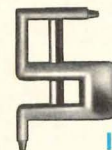
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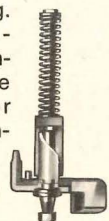
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(a)

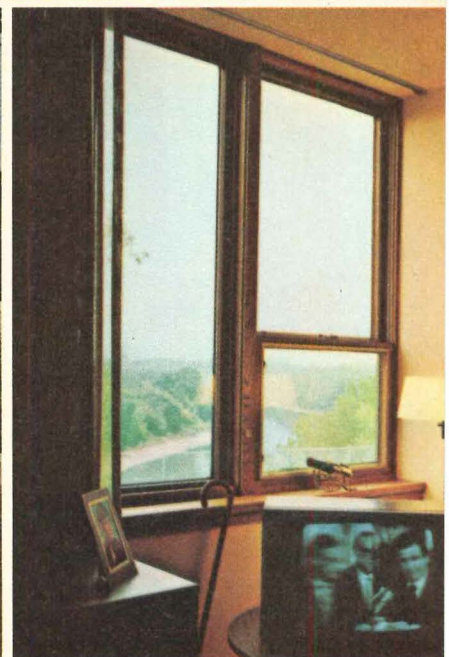
Inside, the unspoiled beauty of a carefully-crafted wood window.

Wood windows are known for their warmth. Visually. And because of their natural insulating value. And in the Pella Clad Wood Window, we left both of those properties unchanged. The exterior aluminum skin does not penetrate the frame or sash (b). Nor is it visible anywhere on the interior of the window. We recognized the need for a weather-resistant, low maintenance window, seeing no reason to compromise the natural beauty of a wood window, we very carefully avoided doing just that.



(b)

**At the Minnesota Veterans Home,
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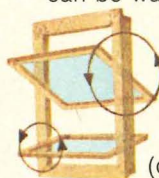
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(c)

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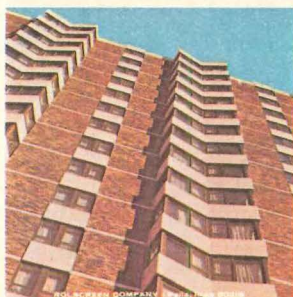
(d)



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737 submissions in search of recognition

January 1975

Rudolph: "What would a P/A jury have said about the design of Ronchamp?"

Eisenman: "If Peter Chermayeff were on it, he would have said it had 'no humility'."

Other jurors (with mock disdain): "What's inside those thick walls?" "It's too complicated for such a straightforward program." "No provisions for parking." Pensive chuckling; attention reverts to sandwiches.

It was lunch break on the second day of judging, and the P/A jurors were pondering their criteria before the final rounds. Like jurors of the past, these eight people hoped to transcend momentary preoccupations that might blind them to eternal values among the entries.

Have the 22 P/A juries to date rejected any masterpieces? Probably, but if we knew of any we would be honor-bound not to identify losing submissions (never done except, in rare cases, with the architects' consent). We can see by past awards issues, however, that some of today's recognized landmarks earned only citations from our jurors—SOM's Manufacturers Trust Company, for instance, and Kump's Foothill College. I recall that MLTW's design for Sea Ranch, which has long been an architectural pilgrimage point, was actually rejected at one point, but a sympathetic P/A editor slipped it back into the "save" pile. "Didn't we just reject that one?" "Well, I for one wanted to keep it in; maybe we should give it another look." And so Sea Ranch won its citation.

Last year's jury was gravely concerned about the failure of so many entrants to explain the context or the basic objectives. Unless the submission makes them clear, the finest intentions, the most sensitive processes, the most brilliant solutions will go unrecognized by the jury.

For this year's program, we stressed the need for full explanations. This time we required a one-page synopsis and asked each entrant specifically to "set forth reasons why

this submission should be considered for recognition."

Most of the entrants assumed—as architects will—that a simple exposition of program and solution would make these reasons self-evident. Some took us literally (as we meant them to), stating explicit reasons for recognition.

What kind of statements did we get? They tended to be pretentious: "This firm believes that the project, as herein submitted constitutes the culmination of . . . (60 words deleted) . . . These issues, examined in more detail by this submittal, in conjunction with the program's objectives, have been resolved in a manner we believe optimizes all aspects of this building effort. The client concurs." (This one got a citation *despite* all that.)

Others singled out one or more lofty concerns: "The structure is a 'Human' building in 'Human' scale, an expressive building that reflects the solidity of the community. Its nonbureaucratic look adds a welcome charm and a refreshing and progressive architectural viewpoint . . ."

One entrant made a concise list of design, technical, and cost considerations, capped with a plain-spoken reason: "to reassure the faint-hearted clients who are getting fainter with double-digit interest rates and unsecured financing." Another included the very convincing reason: "It represents a first step in creating an additional role for the architect." Under the heading "Why should this entry be considered," a Vancouver firm demonstrated reserve worthy of the British homeland: "It seems a fair response to a unique kind of problem."

Next year, perhaps we can find still better ways of getting entrants to communicate with jurors. After all, this jury—like most—can judge only *submissions*. The jury meeting you will read about on the following pages is actually the last phase of a process that began in architects' offices all over the U.S. and Canada. Our thanks to all of you who participated; whether you won or not, you helped to make this issue a better forecast of architecture to come.

John Morris Diefen

The 22nd awards program

Soon after the eight jurors for this year's awards program gathered in P/A's offices to begin examining the 737 submissions that had been sent in, they separated into what has now become firmly established as three distinct groups for judging the entries. In the too-short period of two days, in one room the architectural design jury would narrow 611 submissions to 13. In another room at the end of the hall the planning and urban design jury would select 3 finalists from 101 entries, and at the opposite end of the hall the research jury would choose 5 of the 25 proposals submitted in that category.

Architectural design

If compared to juries of previous years, perhaps the most significant difference of this year's architectural design jury, insofar as the actual mechanics of the program are concerned as distinguished from the projects awarded, was the jury's decision that winning finalists—citations—could be raised to award status by only two votes of the four-member jury. The jury wanted to avoid making compromise decisions, noting how typical it is in design competitions for those projects to be awarded that everyone "dislikes the least." "I think it should be in for the record that there was no unanimous award, that the whole jury does not agree on any one of them, and that takes them down, I think, even a little less than awards," Eisenman noted. "We happen to be a jury of four," Rudolph concluded, "but through our own doings we're a jury of two and two . . . so be it."

Planning

This year's jury, composed of Joyce Whitley and Lee Copeland, were quick to clarify the stickiest problem in judging the 104 studies. Because of the diverging concerns of the broadly based planning profession, there was a wide range of entry types. Investigations included alternate modes of transit for a city as one complete study; a correctional facility system for another; and environmental impact studies, besides actual physical plans and urban design schemes. Copeland and Whitley suggested, in fact, that P/A limit the scope of its entries so that the different submissions could be more realistically compared.

They felt that only urban design and planning proposals directed at the development of the physical environment should be judged. Both urban design and planning submis-

sions should be geared to offering tangible solutions, actual physical guidelines, or policies with a clear formulation of the end product. This is not to say the two jurors were ignoring the need for the open-ended flexible planning, geared to change and growth. But Copeland and Whitley did feel that too many submissions simply analyzed the situation with no real conclusions drawn. And some submissions only concentrated on one aspect of the planning problem, without any true acknowledgement of the remaining determinants of a proposal's success.

Therefore, jurors suggested that a submission first clearly state the whole problem, and next include the various steps of the planning and design process—with an explanation of the tools used, how the research is done and the information is acquired. User need input, they felt, was mandatory, and the submissions must explain how this input is obtained.

Not only should the planning approach be spelled out, as indicated above, but the methods of the plan's implementation need clear and precise formulation. The failure to recognize real constraints—legal limitations, the development's financing and economics, or users' specific values and lifestyles—constantly showed up in the submissions. And finally, a solution should be proposed with the conclusions drawn by synthesizing all the information gathered as a result of the process.

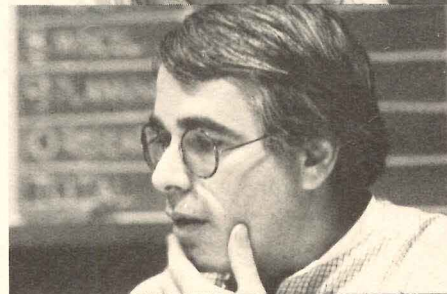
The jurors repeatedly emphasized that a major shortcoming of the planning process is the concentration on one element of the total range of considerations, at the expense of the others. To focus simply on the design solution, without defining the problems, formulating the process or addressing the means of implementation, is ineffectual, but to concentrate on the problem without coming to a solution or conclusion is meaningless.

The two jurors also stressed the need for P/A to carefully distinguish between the categories of urban design and planning. Entrants should then understand and address the criteria involved in each category. Generally, they agreed that urban design proposals should, to begin with, offer the guidelines for shaping the built environment, and how buildings relate to each other in terms of physical connections, activities, and uses. However, urban design submissions should also analyze the quality of the experience generated by the proposals. And urban design does not involve actually designing buildings—that would necessitate

Chermayeff



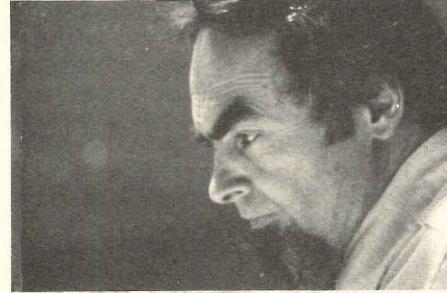
Eisenman



Rudolph



Zeidler



Copeland



Whitley



Brill



its being considered as architecture. Planning submissions on the other hand, while taking in a large scope of concerns, environmental, impact growth, land use, regional relationships, still have to settle on actual physical proposals. Thus the jurors suggest narrowing planning submissions to a more specific direction closely related to urban design. Yet the greater impact of the planning proposals would still have to be acknowledged and confronted.

Research

In the pages of the research awards are no searing manifestos. Yet, judging from the winning entries, the stream of social consciousness that swept this country through the Kennedy and Johnson years has not spent its force. Architects and social scientists are learning to write well-documented, logical, and highly pragmatic reports that substantiate their sympathies for the users' needs. In effect, they are producing *design* guidelines which give the design professional program information he might not otherwise have. What makes this year's three First Awards so exceptional is their willingness to cater to the designer's needs. How the research was done, what were the findings, and why the design determinants are advocated are all documented. So the designer is equipped to make intelligent tradeoffs.

The work is going on amidst many questions of time, money, and human resources needed. It seems that good if limited conclusions can be drawn by a designer evaluating his own completed project. Simultaneously, only a special team culled from many disciplines can render pervasive long-range conclusions. What unites the awards is their rigorous scientific method—and their compassion. In the accounts that follow, jurors Marcus and Brill have deliberately given the awards thorough appraisals, which one has written with the other's approval.

The Jury. *Architectural Design:* **Peter Chermayeff**, AIA, Cambridge Seven Associates, Inc., Cambridge; **Peter Eisenman**, AIA, Director, Institute for Architecture and Urban Studies, New York; **Paul Rudolph**, FAIA, New York; **Eberhard H. Zeidler**, FRAIC, Zeidler Partnership, Toronto. *Urban Design and Planning:* **Lee Copeland**, AIA, AIP, Dean, College of Architecture and Urban Planning, University of Washington, Seattle; **Joyce Whitley**, AIP, Planning Principal, Whitley-Whitley, Inc., Cleveland and Chicago. *Research:* **Michael Brill**, President, Buffalo Organization for Social and Technological Innovation, Inc., (BOSTI), and Professor, School of Architecture and Environmental Design, State University of New York, Buffalo; **Clare Cooper Marcus**, Associate Professor, Department of Landscape Architecture, University of California, Berkeley.

Agreeing to disagree



Eisenman

Rudolph

Chermayeff

Zeidler

Whenever a group of professionals come together to pass judgment on the work of their peers, one of the first things that usually happens is that the members of the group go through a brief, if subconscious, period of "feeling out" each other to get some kind of idea what the others think about certain kinds of things, how they will act in particular situations, who (if anyone) will dominate or attempt to manipulate the group, how, and why. This "getting to know you" ritual is crucial for establishing the group identity. It

seems to be almost a convention, it is probably quite natural, and it probably has a sound basis in the theory of group psychology. It usually has happened whenever a P/A jury has been convened. But it did not occur this year.

Soon after the jury met they quite naturally, and for obvious reasons, elected Paul Rudolph chairman of the group. In the two days of deliberations that followed, however, that was one of the few instances when the entire jury acted in complete accord with each other. This is not to suggest that the jury was wrenched apart in disagreement. They were not. But the individuals of the group, more than those of previous years, seemed intent on maintaining their personal identities, in expressing their individual feelings, and in not allowing their own personalities to become submerged into the more generalized personality of the group which, if permitted to emerge, would have been more characteristic of the group than of the individuals who composed it. As noted in the introduction to this issue (p. 42), there were no unanimous awards. To a certain extent, the jury agreed to disagree, as their comments here and on the following pages will show.

The single-family house

Eisenman: Since the houses represent the largest category I would like to see if we could use it as a fulcrum element; I think the interest of this jury will be in the areas where we have disagreement and when we start to focus on issues. Certainly one of our initial disagreements is this idea of the house. If you look at the problem of real estate speculation and tract development, how the house relates to the next house, the kind of form and structure the house sets up and its ability to communicate a pattern larger than itself, it's a very important problem. What I'd look for is precisely the capacity of the houses to accept other scales.

Chermayeff: What I'm concerned about is that the old American Dream is somewhat irrelevant to our discussion.

Rudolph: I can't agree that the single-family house isn't important any more. It still seems to me to be a kind of proving ground for young architects. The house has more meaning and more clarity than some larger-scale buildings. The human spirit really comes out in the single-family

house in ways that it doesn't come out anywhere else.

Zeidler: The single-family house still has meaning, but I think you have to separate the form from the idea. The idea is to have your right to do things the way you want to.

Eisenman: Since the program of the house is really known—there's not much left to do—one of the most significant things about the house is that you're left to solve some other issues of architecture, like metaphor, symbol, icon, attachment to larger scale. In other words, architecture shouldn't concern itself with just rearranging rooms, making pitched roofs or flat roofs, or just making style. Most other types of buildings differ from houses precisely because the functions are so explicit; consequently they have no room for any kind of statement about iconography, meaning, or intention; the ideas are subsumed in the program.

Chermayeff: I'm not so sure I agree, because there are so many cases where a very complex problem allows a powerful and poetic statement to develop metaphor or symbol despite its complication.

Eisenman: Yes. It shouldn't be thought of only in terms of larger functions; that's what I meant.

Rudolph: I think everybody should nourish every last personal idiosyncrasy.

Chermayeff: In relation to whom, that's really the point. It's really in relation to the architect.

Rudolph: The lack of humanism in the environment now is in part due to that attitude.

Chermayeff: I'm not arguing in favor of sterility.

Zeidler: But the problem with the houses is . . . just imagine all of those houses built along one street.

Eisenman: That's what we're talking about; then it becomes a zoo, and that's what's turned us away from the whole thing. That's why the Victorian houses, which accepted a fairly strict order, could live side by side. The same is true of the little early American village town with the treelined street and the repetitiveness of things.

Housing

Rudolph: What's interesting to me is that out of the private houses has come a great deal of input for the housing, and in some ways that makes the houses less important. I find the housing we've looked at really exciting; it was in general several cuts above anything anyone would have expected, especially in terms of siting, breaking down of scale, and humanizing very, very large complexes in rather remarkable ways. The housing seems far superior to the other groups, and since it is one of the most difficult and important things in this country, I find that very heartening.

Chermayeff: So do I. Housing is probably the most important problem facing architects in this country and it's good that we were able to find examples to single out. There were so many submissions in housing, given the state of the economy, and I found that very encouraging.

The reuse of old buildings

During the two days' deliberations the jury discussed the idea of the reuse of old buildings at considerable length, and ultimately awarded three out of the many projects submitted. But here, too, there was some disagreement.

Zeidler: I think we have gone through a stage where we tore everything down; when you came to a point where you

couldn't save a building you knocked it down, so the idea of maintaining structures and fitting them in never arose.

Chermayeff: It's a difficult problem. We know now we can't always look at old buildings as nostalgic, beautiful objects that ought to be restored for their own sake. Now, in many cases, we might be expected to make something out of something that is really horrible, that should be torn down. Often, it's simply an economic necessity we have to live with, and it's a very important problem.

Eisenman: What worries me . . . is the sort of cute attitude toward old buildings, that boutique kind of awfulness. I think people can have a kind of "motherhood" attitude toward the adaptive reuse of existing buildings that no one could fault, but then the question is how well the architect has fulfilled his role.

Rudolph: Yes, it can become fashionable; the important point is not what you do but how well you do it; it's a question of how it's done and why.

Siting

Insofar as the entire program was concerned, the jury's most serious complaint about most of the projects submitted was that few of them included enough information about siting and context to enable the jury to make accurate judgments about the projects in those terms. This was especially true with regard to the single-family houses.

Zeidler: I can't really judge some of them because you see them without any relation to where they are; they're too flip-pant in their attitude. You can insert a certain house in a certain place and it would be right; in another place it would be wrong. If a house sits in an environment where you see everything else, then it has to respond to its environment. To me, architecture in an urban environment—and more and more we are in an urban environment—has to be considered not as an entity in itself but as a link in the chain of spatial events. And that, unfortunately, is lacking.

Summing up

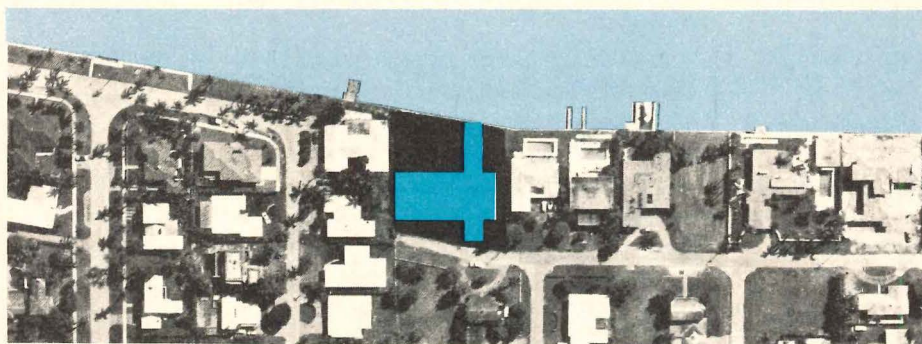
In summing up the program after the jurors had made their selections, they noted that one of their most abiding concerns had been to look for and to award those few strong statements that might be found.

Zeidler: I would rather have a strong statement that may be wrong than have no statements. I feel that none of these winning solutions are handstands; however, I would say that handstands are the wrong thing. Architecture isn't acrobatics. All of the winning projects are searching for a solution in a certain way; they all have enough quality that is worthwhile; they will all have a survival rate.

Eisenman: For the record, I would like to say that in contradistinction to last year's jury, this year's reasserts the necessary aspect of architectonic quality and development toward a solution as opposed to process only or good intention. I think this restatement of the architect's role, the spatial answer to a programmatic statement, is reassuring.

That there was disagreement among the jurors cannot be doubted. None of them agreed on every project, but nevertheless they served admirably and gave many suggestions about how the program might be improved. Their general attitude might be briefly summarized by one comment Paul Rudolph made during the deliberations: "If that damned house can stay in then this can stay in."

Remment Koolhaas Laurinda Spear



A house on the waterfront in a densely built-up suburban neighborhood in southern Florida was found to be disturbing in its strengths and weaknesses, but powerful in its poetic and iconic statements.

Program: A house for a family of five which parents and one child will occupy permanently but which is organized to accommodate other family members and guests who frequently visit. The family's rigorous exercise program (which determined the pool's shape) and various forms of entertaining were major considerations in designing the house.

Site: A double lot facing the water in a densely built-up suburban area of Florida.

Solution: Four walls placed parallel to the water, and which differ in materials, texture, and color, create three linear programmatic zones to form a sequence from the almost completely hermetic to the almost completely open as they approach the water. The first wall is free-standing, with openings only for the entrance, two garages, and swimming pool extension. Behind, a double-height gallery housing an art collection is the main formal circulation space. The six-ft-deep second "hollow wall" is punctured by identical doors on the ground level, each leading to a different room or to service areas contained within the wall. On the second level, the deep space becomes a glass covered corridor along which identical doors lead to private family quarters. Beyond the major activity zone is a third wall of louvered doors which can all be opened to the water so the wall, in effect, disappears. A residual fourth wall of glass brick supports only a ve-

randa which forms the third linear zone—informal circulation.

Materials and construction: First wall is natural stone; second wall is faced with smooth ceramic panels; third wall is aluminum louvered doors; fourth wall is glass brick. Construction details are not yet fully defined.

Jury comments

Eisenman: I think this makes a genuine statement about houses. It's one of the few statements about suburban living and it's obviously, for me, a very iconic statement. It's one of the few that seems to be making that kind of gesture—it's the attitude, the metaphoric content. I believe architecture traditionally served a critical function in society; that is, in its critique of society and of architecture. This house is above all a critical gesture at architecture today and at society. In that alone, in telling society to take another look at itself, is its great strength. It represents an attitude toward the developer's house which I think is refreshing. Also, it's one of the few projects that shows a site plan in its context.

Chermayeff: It's turning an absolutely ruthlessly blank space to the public world and then it opens up completely to the outside, in a refreshing simplicity. I find it intriguing and disturbing, but I can accept it because it's so utterly rational; it's an entirely rational plan in the way the house is zoned and in the way he separates family, which is a very good idea. It really isn't developed yet as architecture. It's a poetic diagram; actually, it could be called a very rational poetic statement. Yet it's not so rational if it's all air conditioned. All the glass brick and skylight create a tremendous load problem. But it starts

to become poetic in some of its extreme statements. He's a mad poet in the way he's stretched it out; taken the drawings and laid them down like a child's cutouts. It doesn't look like the hand of an architect, though.

Rudolph: Well, you realize what it is. It's some guy who never built anything and has no feeling for materials. One can be beguiled by the drawings and by what one reads into them, and that's all fine, but building it would be an entirely different matter. The whole notion of the structure . . . a column in one place and not in another; he depends on a wall . . . is that really the way you want to make a house? It's not the work of an architect, yet he may become an architect.

Zeidler: It's a very controversial building and that's what I like about it. It's so much at the edge of absolute disaster, yet it has such fantastic poetry.

Rudolph: One can be beguiled by such things but they're not to be taken seriously.

Eisenman: But I have to take it seriously because there's nothing else, for me, searching for that feeling. I think someone has got to recognize that search. It breaks from the Corbu tradition; there's no Venturi, no Giurgola, none of that; it's a-stylistic and that's what I like about it. It's one of the few submissions that makes a comment about the suburb, the private house, the way it occupies space, about the metaphorical nature of our personal lives. It's a kind of utopian gesture in the midst of this awful middle-class suburbia; it thumbs its nose at the middle class, and in the end it's a poetic gesture of the sort you can perhaps only do in a private house.

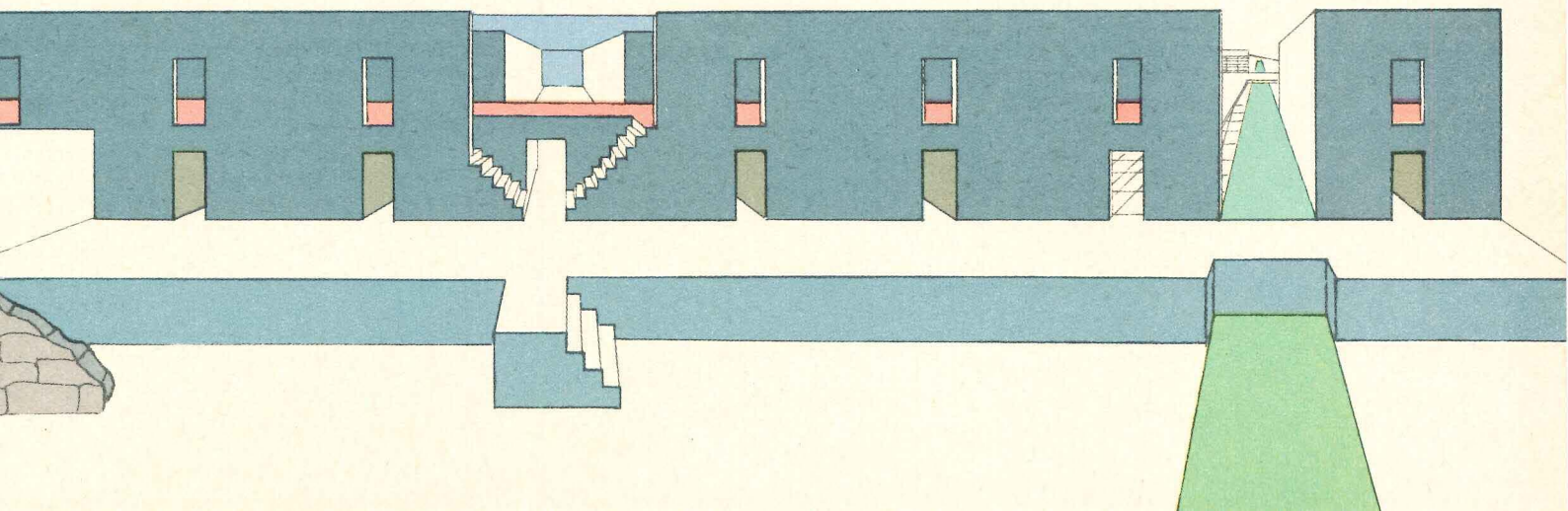
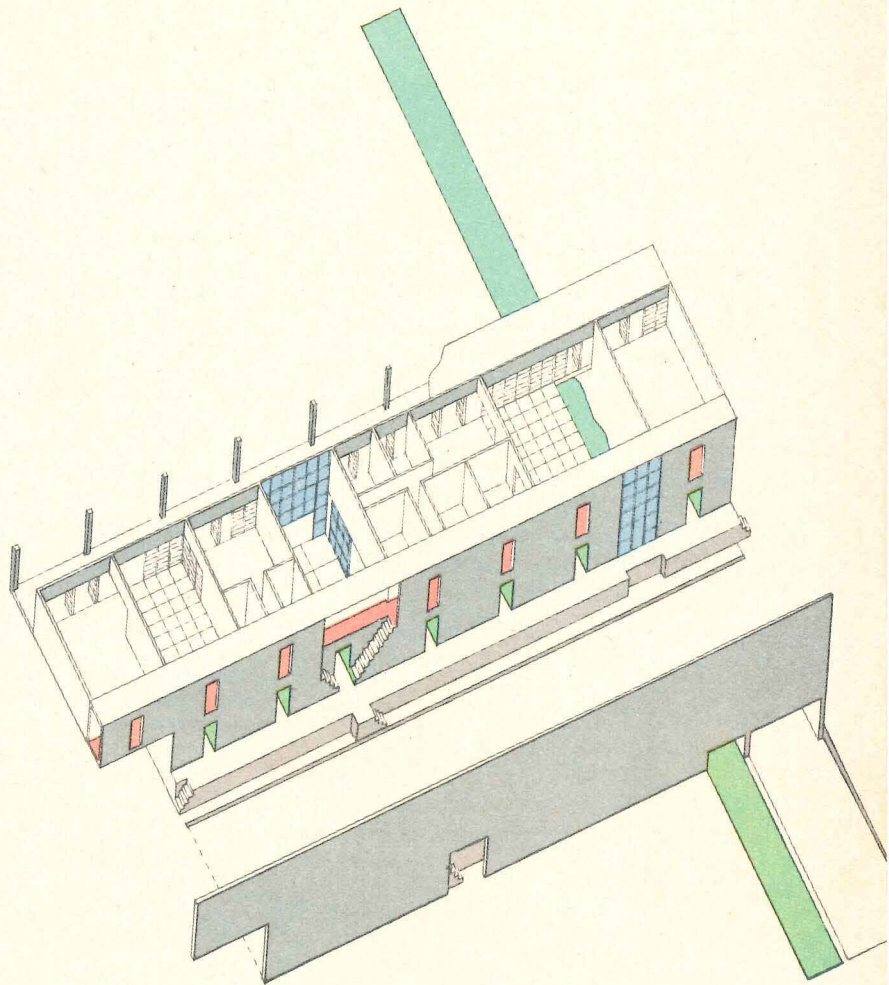
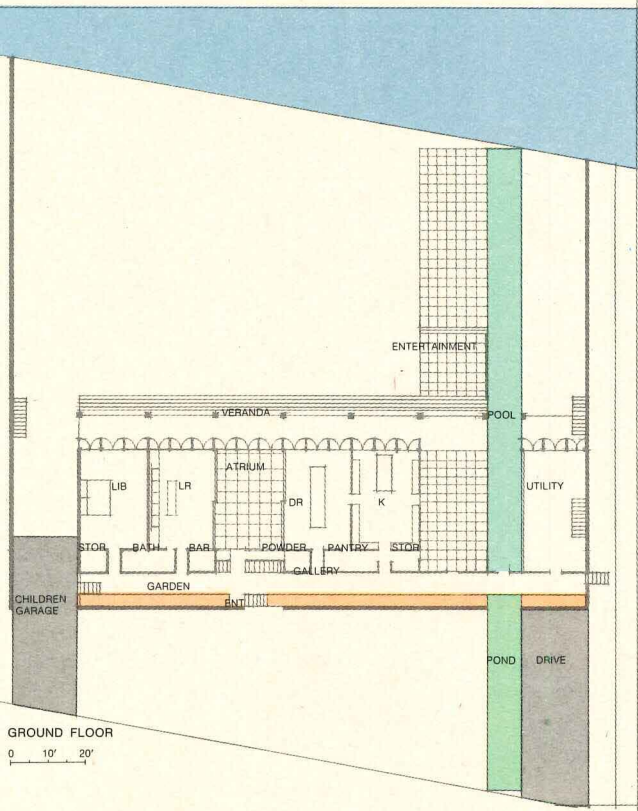
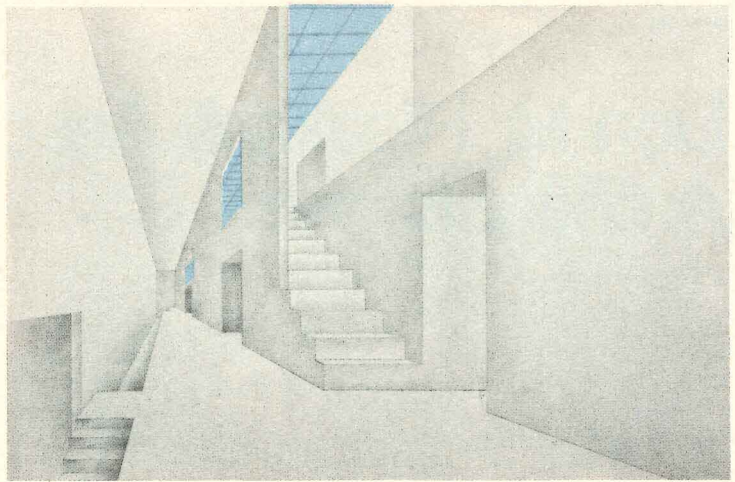
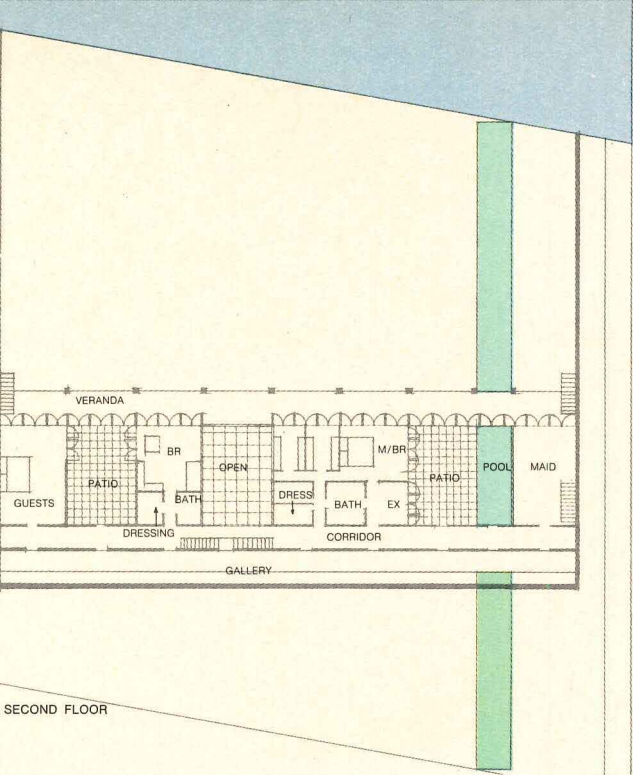
Zeidler: It's quite beautiful; it's either very great or very, very bad. The funny part about the whole thing is that it's so weakly done yet it's such a strong statement. The way it's drawn is unbelievable. It's very consistent in the way it's presented and in the way it's drawn, but there is something of an unsureness in the way the pencil lines are drawn and in the way the spaces are created, and yet they are so unbelievably romantic; they are very appealing and it would be a wonderful house to be in. While it uses very minimal elements, their sequence create a totally new space feeling that I haven't seen before. You feel that, given time, and that someone would buy or build a house like that, whoever drew that up should be capable of fulfilling the promise in there. It's a promise at the moment, nothing more. It definitely needs far more work to realize that house than the other things we've seen because all of the elements have to be reinvented, the details have to be reinvented.

Rudolph: I think I can agree with what's been said. It does have a surrealistic quality which one cannot put one's finger on; it has a kind of power which is inexplicable. If one tried to imagine it built, however, it's another matter. One of the very good things about it is one could use one's own imagination with regard to what it would be like. I can never just look at drawings; I can only look at them in terms of what something would be like. If it were carried out, it obviously would be something very different. It might be a great disappointment or it might be a very marvelous thing.

Credits

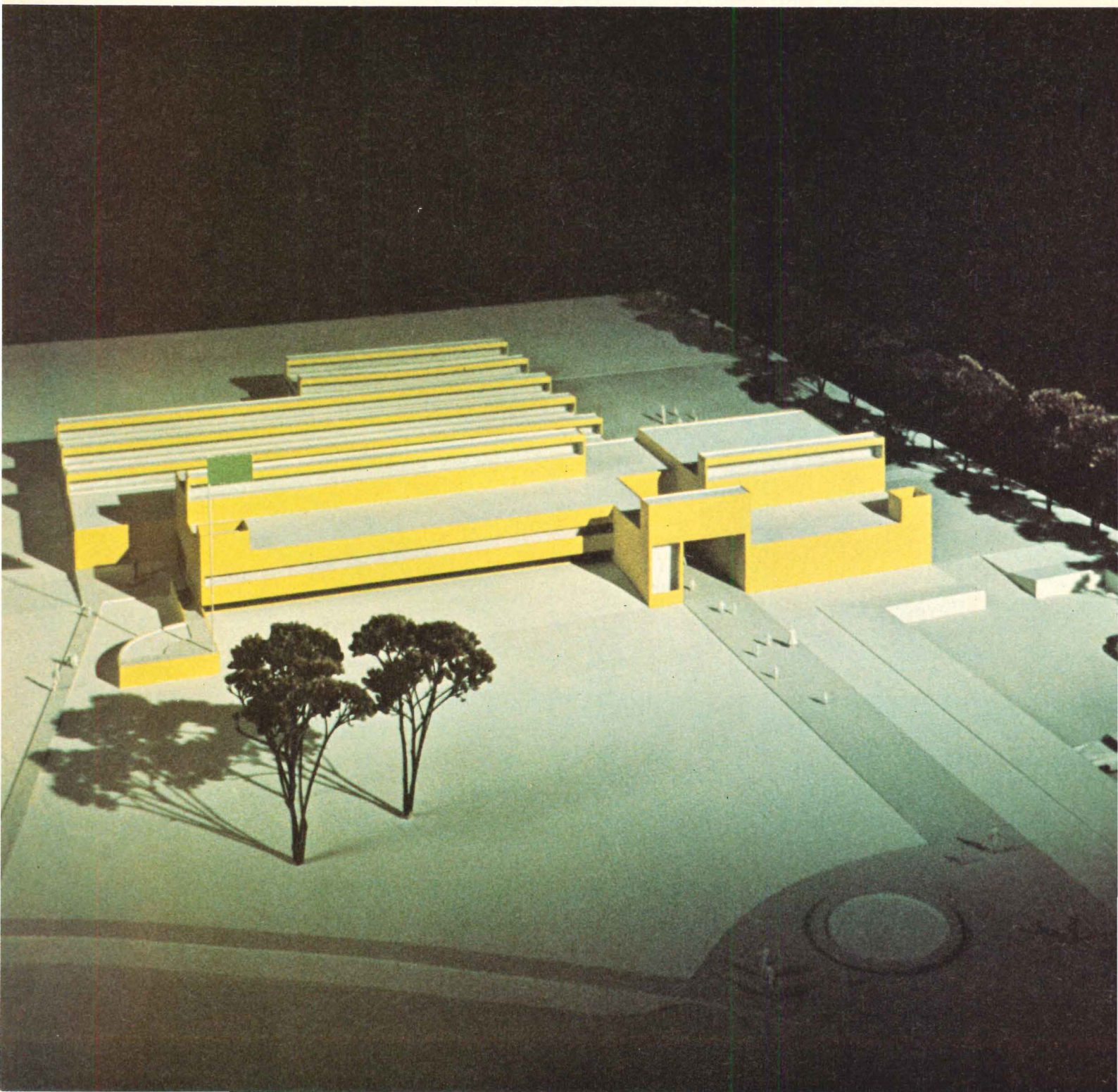
Architectural designers: Remment Koolhaas and Laurinda Spear.

Clients: Name withheld at client's request.



Award

Don M. Hisaka & Associates, Architects, Inc.



Refugee Road/Noe-Bixby Road Elementary School, in a rapidly expanding suburb of Columbus, Ohio, is planned around issues of energy, economy, and open plan teaching.

Program: Elementary school for grades K-6, suitable for team teaching and including a multi-purpose room and library learning center.

Site: Flat, 6.4-acre site southeast of downtown Columbus, in a developing and expanding residential area. To the north is a site for a junior-senior high school.

Solution: A one-story building with a mezzanine for administrative offices; to the rear a loftlike space consisting of repetitive modules easily added onto for expansion.

Materials and construction: Steel frame with yellow porcelain insulated panels enhances energy conservation and provides permanent bright-

ness. Construction is exposed on the inside.

Jury comments:

Eisenman: This has great architectural merit.

Chermayeff: It's curious that it's a gesture toward playfulness but in fact it's as cold as ice. It utterly depends on what happens inside.

Eisenman: But its coldness—you can modify that. The kids can destroy the interior; they can move furniture and everything. I like it because it's reminiscent of [the Smithsons'] Hunstanton School, and things like that. Hunstanton works.

Zeidler: It's a factory where you push in kids in the morning and push them out at night. Sitting in this room without windows all day gets at me.

Rudolph: I must say I disagree. Who is to say it's better to look at the houses around it than at the sky. There are clerestories, which I have to insist provide, in a sense, the nicest outside lighting of all, in terms of light as opposed to view.

Eisenman: My kids go to an open-room classroom, and they think it's fantastic. For someone to take prefabricated components and make that much architecture out of it is good; I know of only one or two others who could do it, and one of them is in this room.

Credits

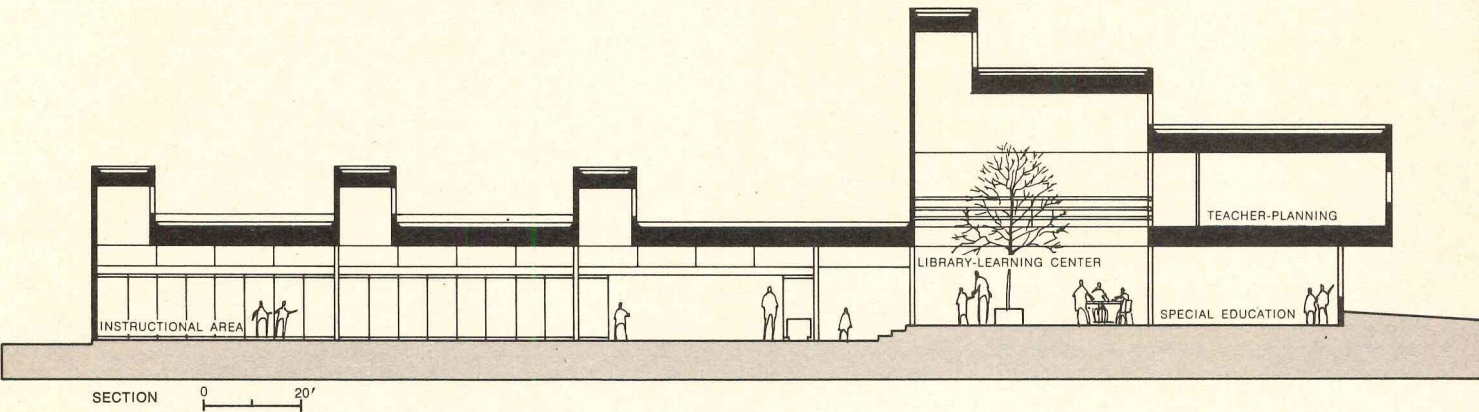
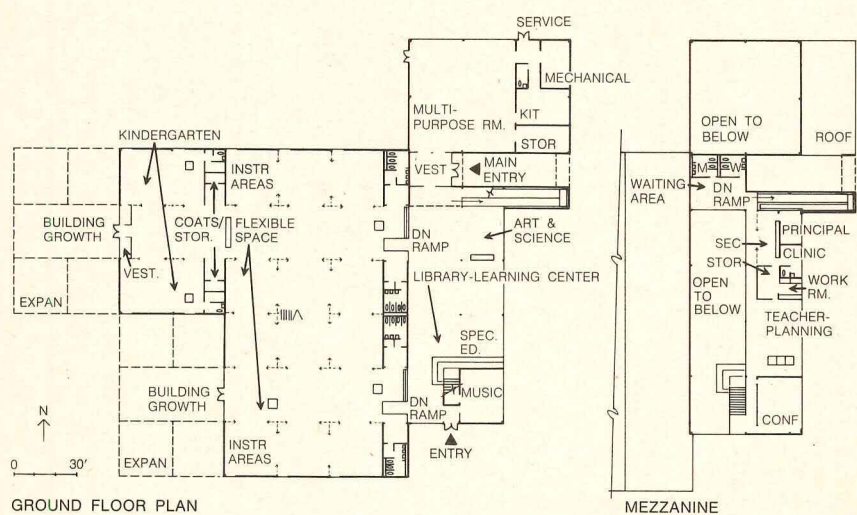
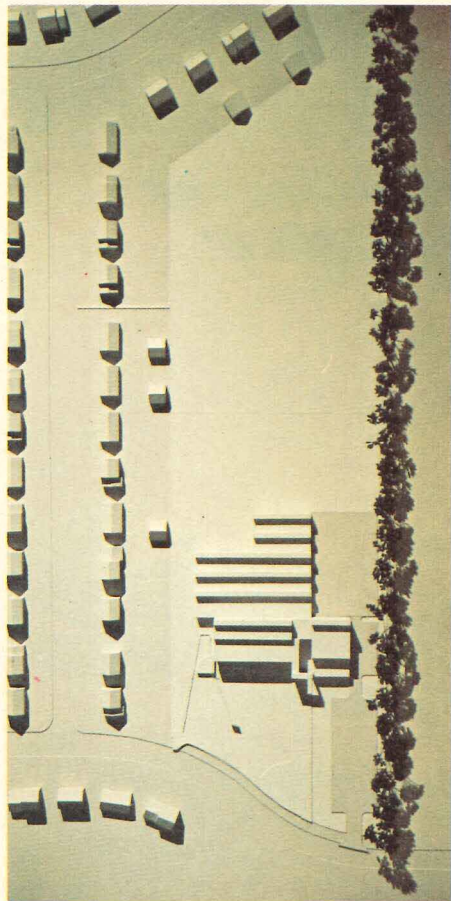
Architect: Don M. Hisaka & Associates, Architects Inc.; Don M. Hisaka, principal; George Saire, senior associate, design; Richard A. Gergel, senior associate, project architect; Thomas P. Graveno, design.

Consultants: Gensert-Peller Associates, structural; Evans & Associates, mechanical.

Electrical engineers: William B. Ferguson.

Photographer: Thom Abel.

Client: Columbus Board of Education.



Award

Marvin Hatami and Associates

Communitas, a residential and commercial development near Denver, will combine its various functional elements into a unique complex with reservoir and mountain views.

Program: Planned for this community are office buildings, laboratories, research and engineering centers, banks, retail shops, restaurants, theater, attached single-family units and a broad range of residential dwellings. Also called for: recreational and public facilities such as golf course, tennis courts, swimming pool, boating, exhibit and merchandise mart, and meeting rooms. In all, there are 1030 residential units and 675,000 sq ft of office park.

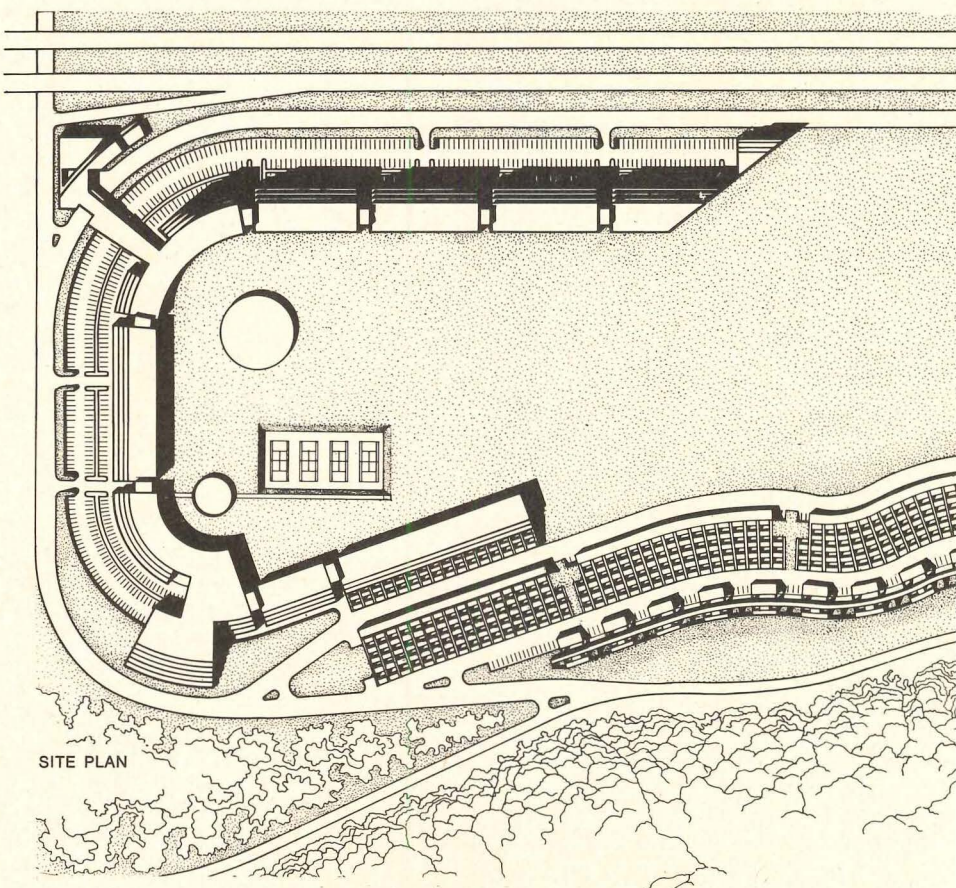
Site: 151 acres (125 for residential use, 26 for commercial) overlooking Chatfield Dam Reservoir, bounded by proposed Interstate 470, and located near a major corporate headquarters.

Solution: Residential units face south, providing maximum use of solar heating effects; buildings are sited on south-facing slopes and the overall scheme is designed to respect the dictates of the topography. Residential units are approached by landscaped service roads, and each has a two-car garage, separate entry, and multi-level living spaces. Commercial areas are designed in modular sections, and stepped terraces encompass a large plaza with covered and perimeter parking. The project uses only 40 percent of the land, the remainder being open space, recreational facilities, and a bicycle and pedestrian path network.

Materials and construction: Foundation and shear walls are to be concrete, poured in place; the balance of the project will be modular pre-cast concrete components.

Jury comments

Rudolph: This is, for me, possibly the most important project here, because it deals well with the car. Unfortunately, it doesn't have to address problems like the existing city—it's one site unto itself—but it does deal with the relationship of the car to new housing and doesn't end up with a huge parking lot. It also takes into account several varying kinds of housing units, and yet there is a tremendous (perhaps too much) sense of unity. The whole siting idea, I think, is very good.



Zeidler: To me, there are gymnastics in here that really don't solve the problem for 2000 people. I think 2000 people are an amorphous group, and we should, somehow, be finding an identity, but we don't. There is only their total, isolated, containerized family identity.

Chermayeff: The sequence of space, the hierarchy of space, isn't there.

Rudolph: Well, I disagree with that, because of the close proximity of the car to the dwelling unit. Further, I think that there is high rise, or medium rise, there is one-story-high stuff, terrace housing, and also the equivalent of garden apartments. Within a very simple composition,

many building types. What for me is most important is not only the considerable variety, but the very natural disposition on the landscape. That's very strong. The hierarchy of exterior space, I would agree, is weak.

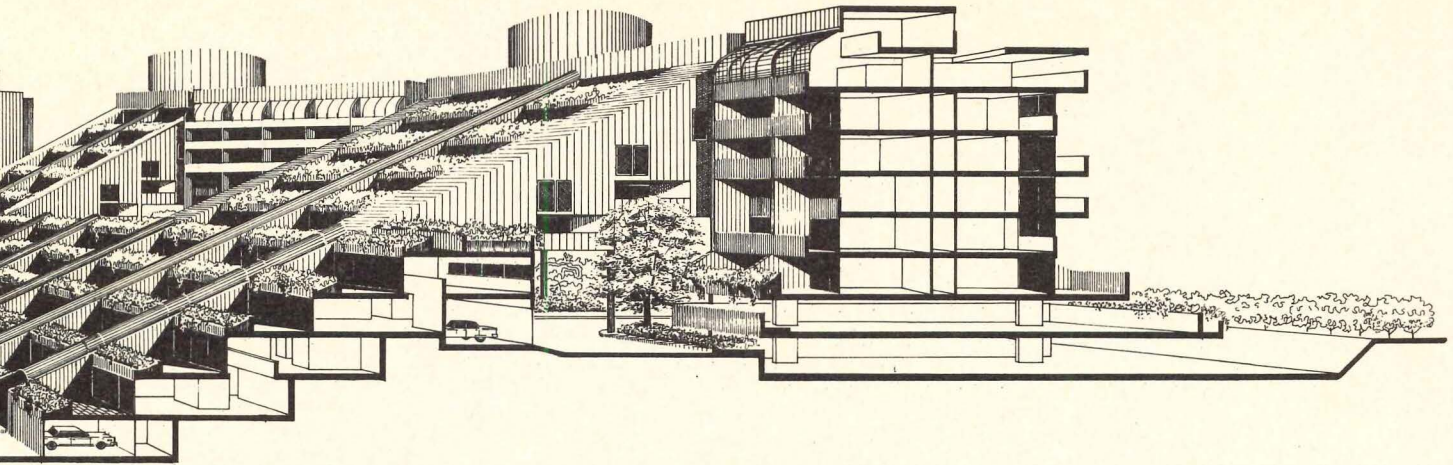
Eisenman: I do think that it has its difficulties, so that it might be a borderline award, but it is a strong statement.

Credits

Architects: Marvin Hatami; design assistance, Donna Dunay.

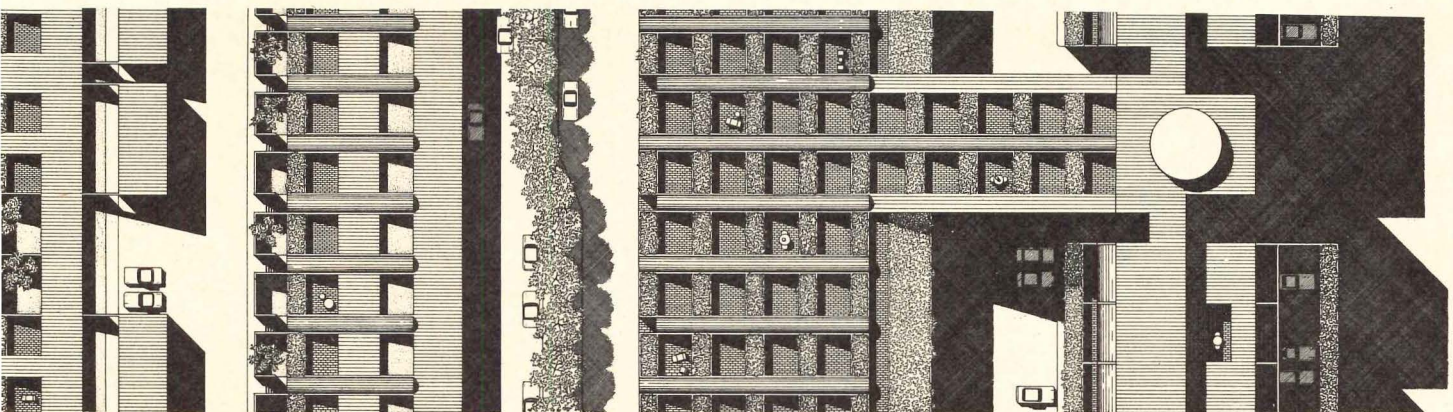
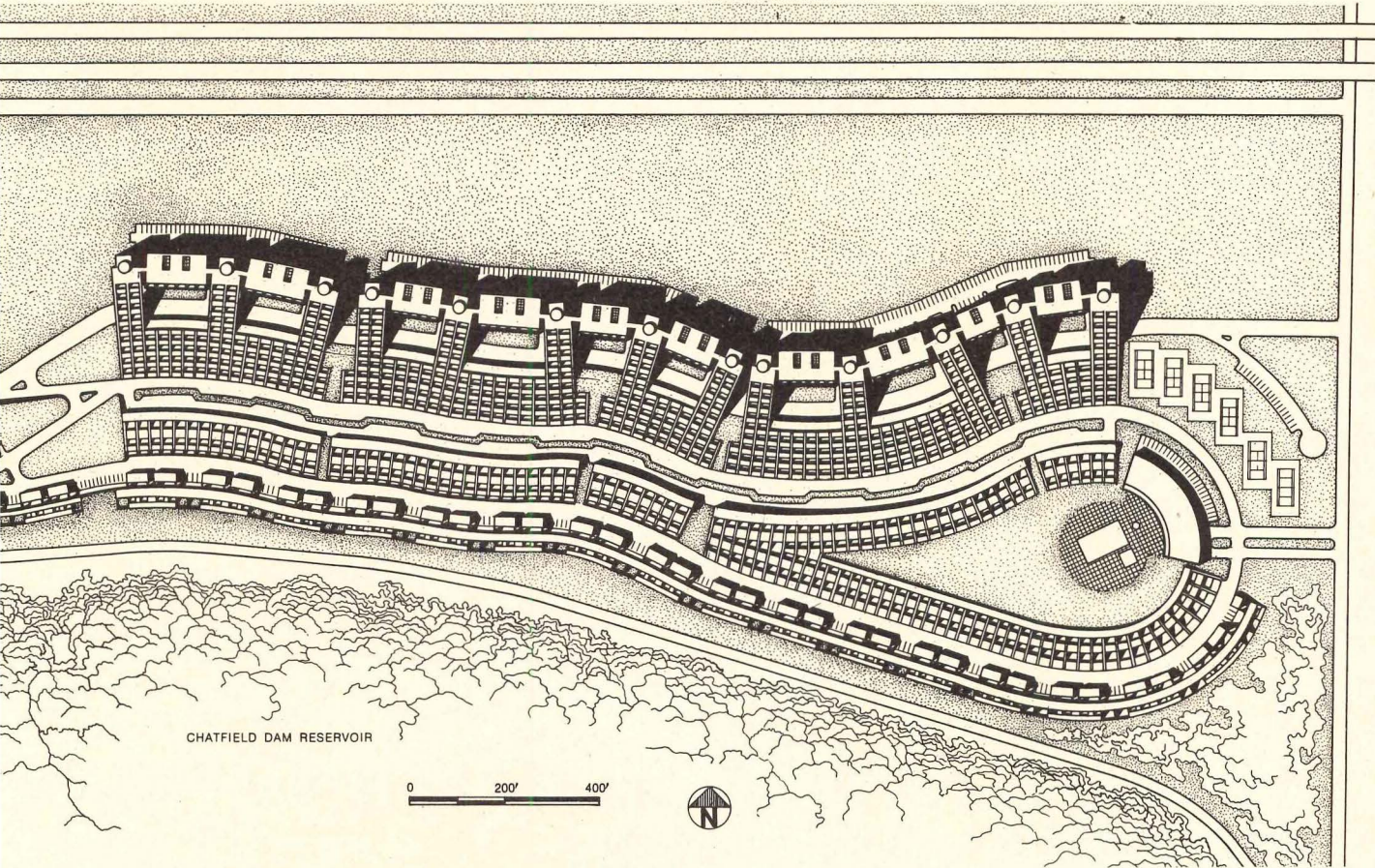
Modelmaker: Jerry Moore.

Clients: Raymond Near and John Dick.

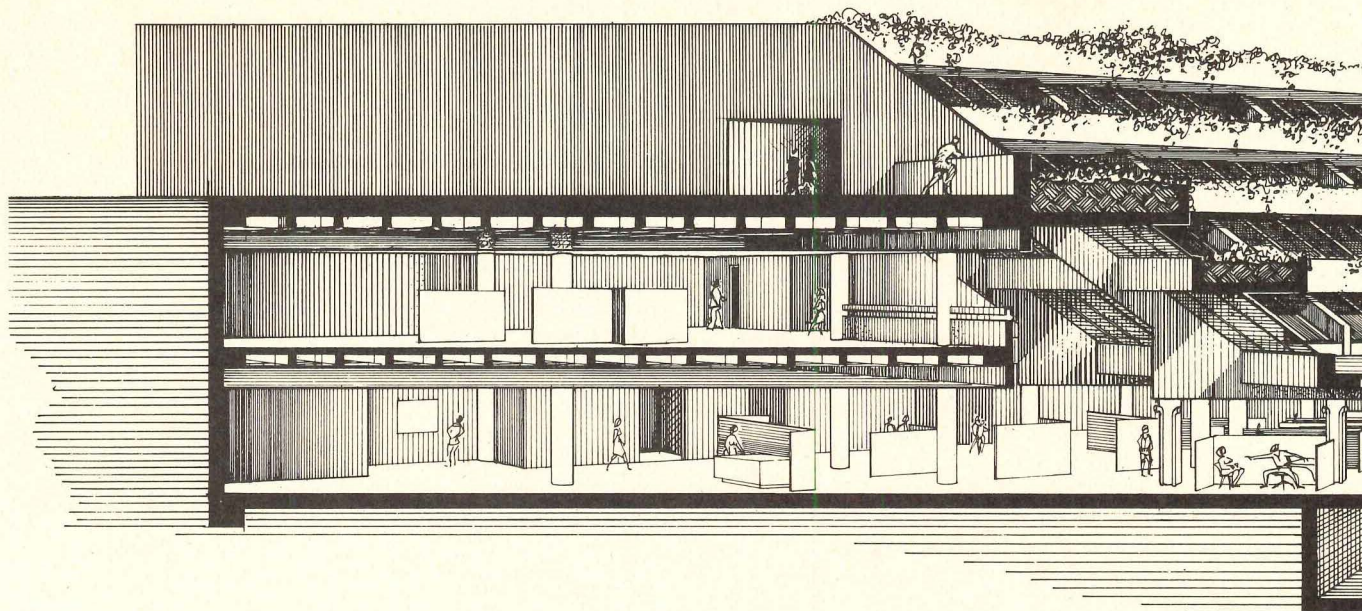


SECTION VIEW, LOOKING WEST

PROPOSED INTERSTATE 470



ATTACHED SINGLE FAMILY — AUTO — ATTACHED SINGLE FAMILY — MAJOR CIRCULATION AUTO, BIKE, PEDESTRIAN — HILLSIDE PATIO RESIDENCES — UPPER PEDEST WALKWAY — AUTO — MULTI-STORY TOWNHOUSES — PARKING UNDER



Award

Myers and Bennett Architects/BRW

East Bank Bookstore/Admissions and Records Facility, on the Minneapolis campus of the University of Minnesota, emphasizes diagonal circulation path and preserves campus space.

Program: Merging administrative and bookstore facilities, the 83,000-sq-ft building will contain approximately 25,000 sq ft of bookstore space, 35,000 sq ft for University Admissions and Records, and 23,000 sq ft of pedestrian circulation and student support functions.

Site: On an urban university campus, semi-enclosed by surrounding buildings, near transportation and in direct line between bus lines and campus.

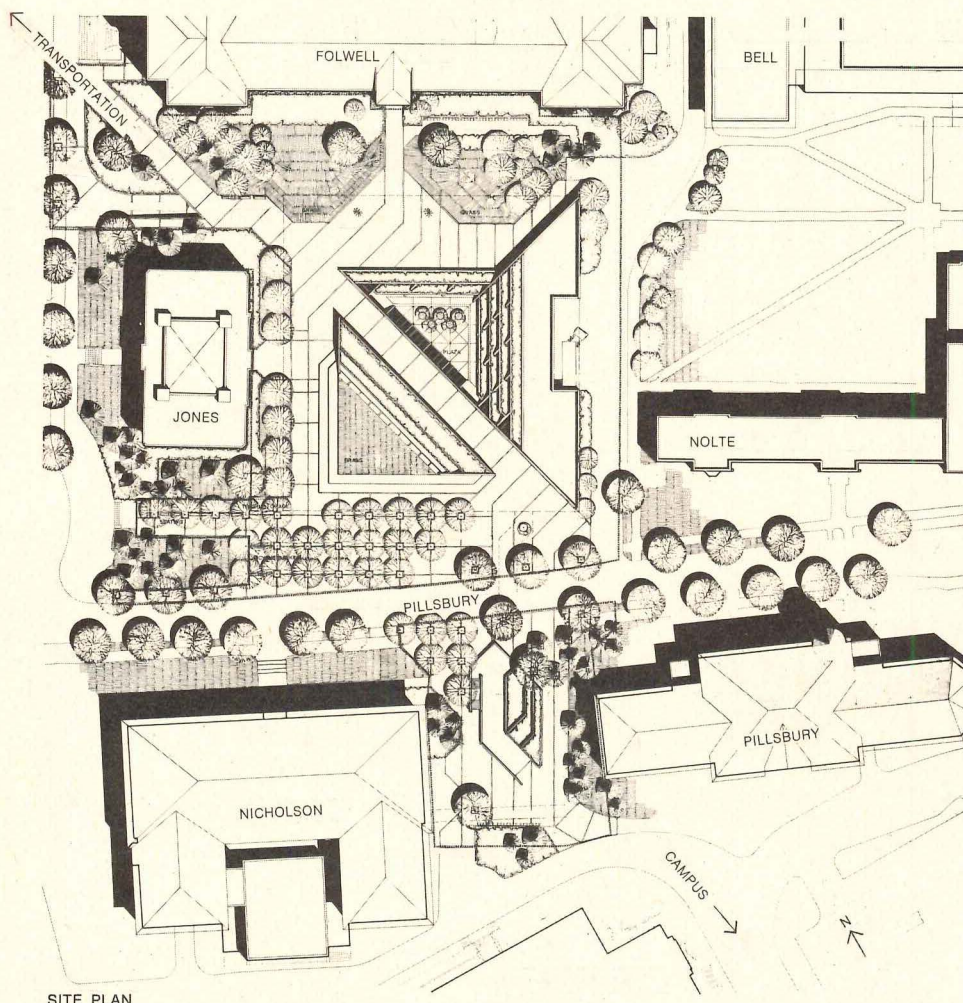
Solution: To make the most of existing circulation patterns, the facility is bisected by a diagonal pedestrian concourse. In order that the new building might cause as little disruption as possible to the space it will occupy, 95 percent of the project will be below grade. In addition to their concern for preserving the campus space, the architects also wanted the building to be energy-efficient and humane. Its design, therefore, reflects the attention to proper orientation, giving building occupants light and views through a central court. Planters form sun control devices on south and west sides where direct sun could cause heat gains. Ambient light enters the store via a sloped glass east wall.

Materials and construction: Board-formed architectural concrete in buff integral color; roof decks used as courtyards or other surfaced gathering areas are either waterproofed and decked in exposed aggregate concrete, or roofed with standard built-up roofing. Glazing is tinted, insulating, laminated safety glass in anodized aluminum frames.

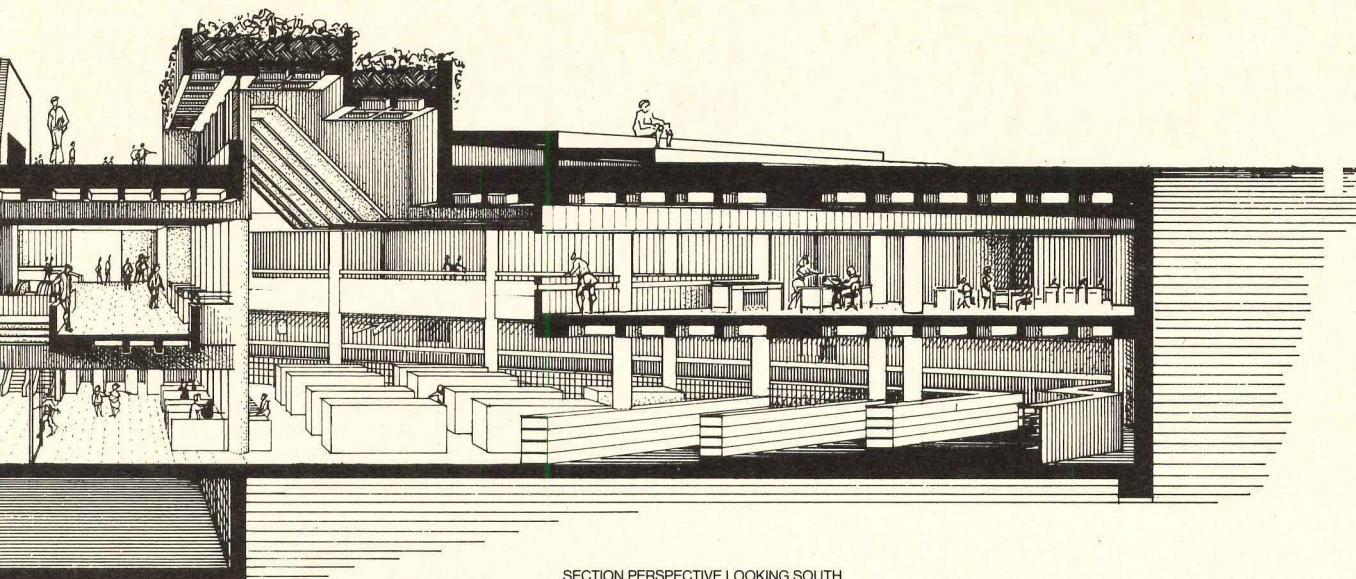
Jury comments

Zeidler: If you look at the orientation of the existing buildings, you see that you were really left with fragments of spaces. With this building, the spaces find their solutions. One thing I would criticize is the receiving area; it somehow seems to turn its back on this space to the east.

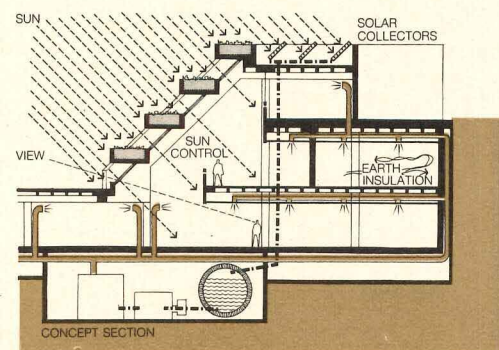
Eisenman: I think when you sink a building into



SITE PLAN



SECTION PERSPECTIVE LOOKING SOUTH



the ground that it's very important to make a distinction between walking on a building and walking on ground. I think also that the notion of this diagonal is alien to the nature of the campus structure, in terms of its built artifacts. I think it's an imposition into the tranquility of the campus.

Rudolph: I would like to make a rebuttal to that. It seems that, for once, the diagonal makes considerable sense because of the general circulation pattern of the campus. The diagram shows that very clearly.

Chermayeff: It seems to me that the issue really is what happens at eye level. The apparent aggression of the geometry, in this case, is not aggressive at all. It's really quite a reticent building; there is no overpowering form intruding on the campus. This is not part of the "diagonality" we've been joking about.

Zeidler: It's amazing the very pleasant spaces it does create inside.

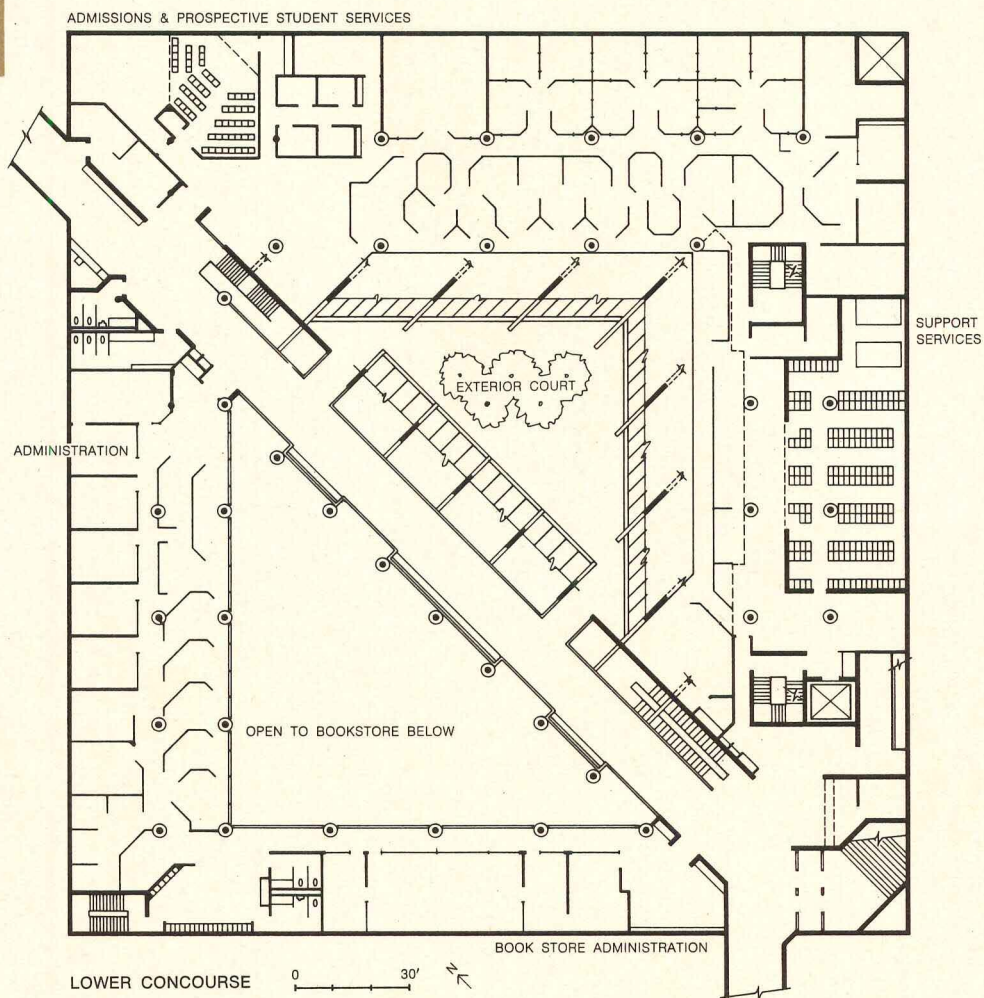
Credits

Architects: David J. Bennett, principal architect; Jack A. Myers, associate architect; John S. Baymiller, architectural/urban designer; Guy R. Johns, urban designer/landscape architect; John C. Krogstad, architectural designer; Larry O. Opseth, architect.

Consultants: structural, Meyer, Borgman & Johnson, Inc.; mechanical/electrical, Oftedal, Locke, Broadston Associates, Inc.

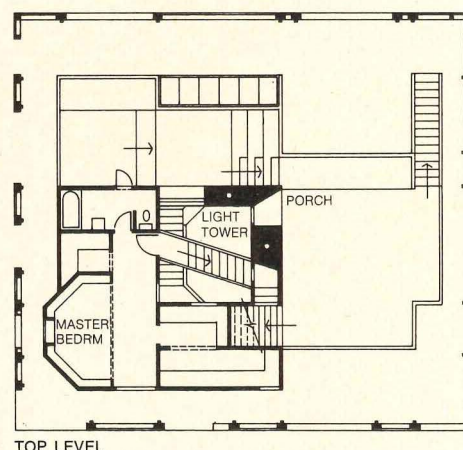
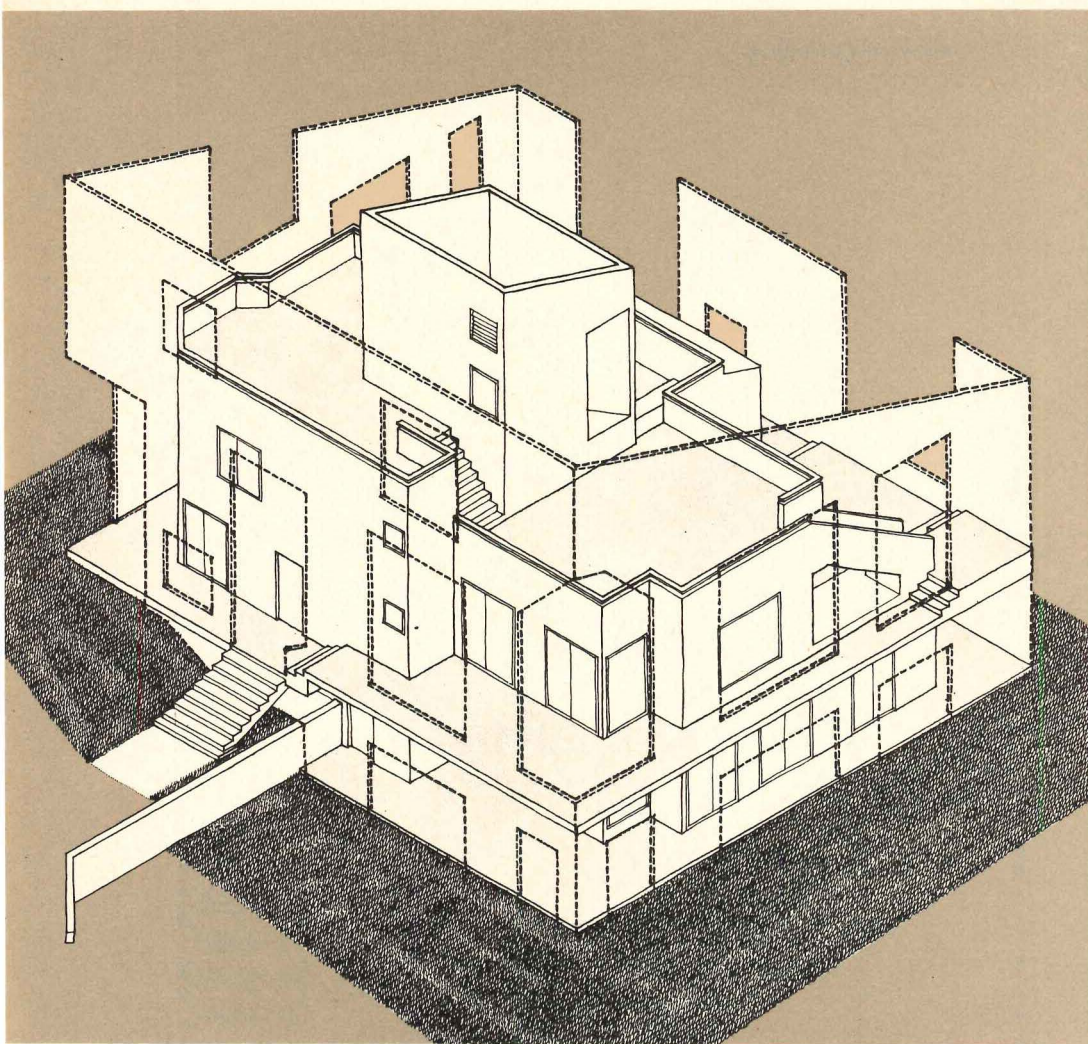
Modelmaker: Linda A. Taggart.

Client: University of Minnesota.

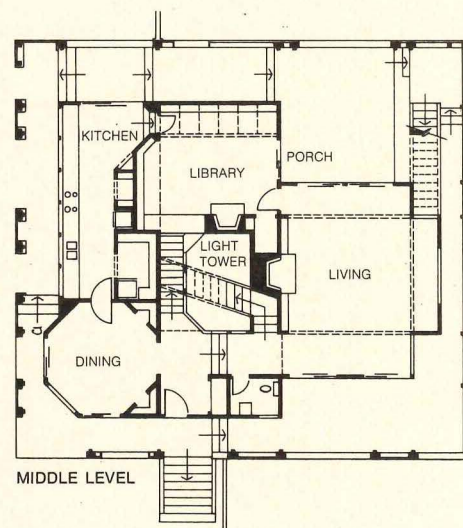


Award

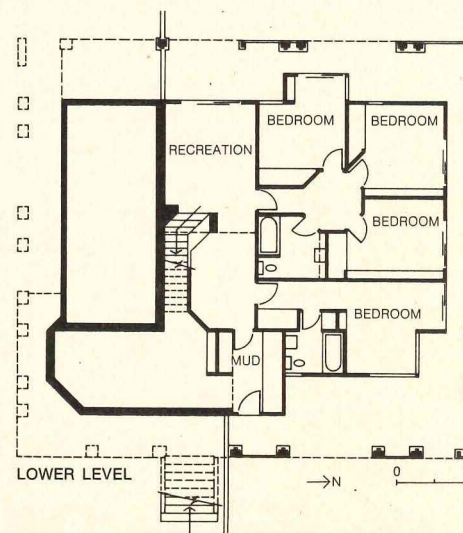
MLTW/Turnbull Associates



TOP LEVEL



MIDDLE LEVEL



LOWER LEVEL

**A residence in Fairfax County, Virginia
resolves a programmatic conflict by making
two distinct houses under one roof.**

Program: A house for a young couple with three children. The wife wanted a house full of porches (like her grandmother's house in Maine) and the husband wanted a bright, sunlit house; a paradox that ultimately found a simple solution. While the couple wanted formal room arrangements, they wanted their lifestyle to be informal. *Site:* A low ridge of land near the flood plain of the Potomac River in Fairfax County, Virginia. *Solution:* A house as "porch"; an inner house

with rooms organized around a central, skylit stairwell and an "outer" house of lattice with super-size openings to frame views. *Materials and construction:* Roof is exposed rafter system sheathed in translucent plastic. Lattice, columns and rafters are unfinished wood to contrast against the white painted surfaces of the inner house.

Jury comments

Eisenman: I think it's good architecture. I think this house succeeds in keeping the cool, almost classical screenlike wall which accepts the different functions, scales, and orientations that must be accommodated in any house.

Rudolph: There is a sense of place with regard to this house that I admire very much.

Chermayeff: I'm impressed by its concept of a house within a house, I don't think it has been done before with this degree of consistency and strength. The dappled light from the latticework would, in many ways, be very beautiful.

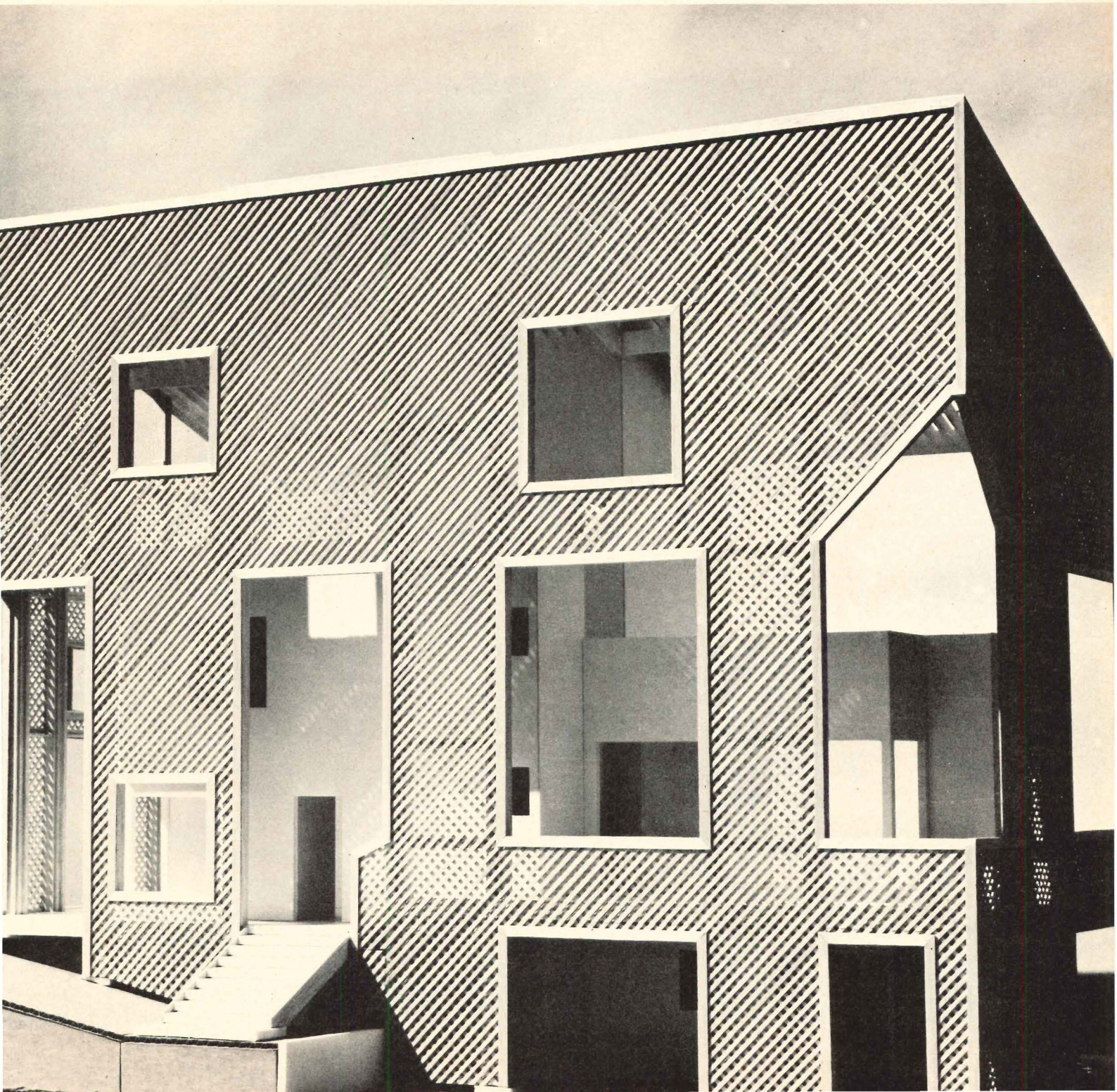
Credits

Architects: MLTW/Turnbull Associates; Steve O'Brien, assistant.

Consultants: Fook Z. Lee, Ronald Shaeffer, structural.

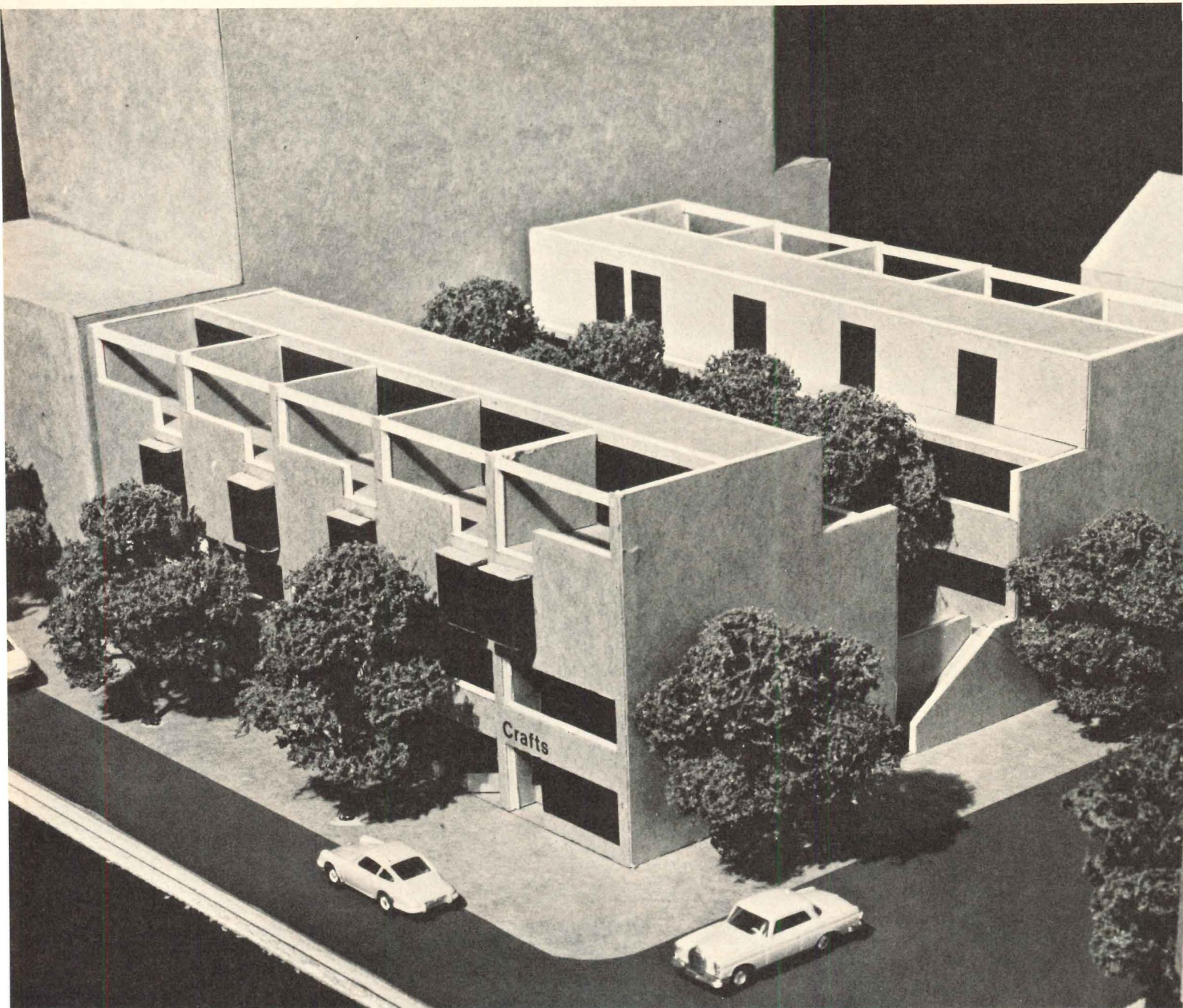
Modelmaker and renderer: Paul Lobush.

Client: Mr. and Mrs. Warren Zimmermann.



Award

Booth & Nagle, Architects/Planners



Davids' Plaza, an urban infill project of townhouses over shops, maintains the scale of an old Chicago North Side neighborhood.

Program: Client requested a one-story commercial building, but architects suggested instead a combination residential-retail structure which would be more in keeping with the neighborhood scale and offer greater financial return.

Solution: A matter-of-fact, but formal, structure vertically proportioned with cornice lines matching nearby buildings. Two rows of townhouses are built on top of stores and face onto a common, above-grade plaza, which is the entry to the homes.

Site: A vacant lot on the northernmost part of the principal commercial street of Old Town, a well-preserved late 19th-Century neighborhood of rowhouses intermixed with shops and pubs on tree-lined streets.

Materials and construction: Ordinary construction using brick, typical of Chicago and complementary to the surrounding buildings. The plaza deck of the townhouses at the second story and the stores below are of reinforced, poured-in-place concrete. Lintels and sills are cut stone.

Jury comments

Eisenman: Modest scheme. May I suggest we distinguish between the low-rise and high-rise housing? I don't want this to be in competition with some grandiose scheme.

Chermayeff: The only thing I don't understand is why the living room looks out and the kitchen looks in. Each upper unit has a large terrace; the lower units have a very poor terrace.

Zeidler: It's a straightforward solution to very real problems and well done.

Chermayeff: To me it's a handsome example of housing units in an existing townscape. It respects the scale . . . a modest statement which is so important in the context of so much exhibitionism in architecture these days.

Rudolph: I have to disagree with what you say, because I think you are misreading the scale. The dimensions between the kitchens, across this open space, appear to be less than 22 ft. In point of fact, most building laws won't allow you to cut these this close together. In any event, if one were being communal in the alleyway down the middle I don't think he would do it for long—there's such close proximity. It also bothers me that there are so many watertight joints in this—what you call modest infill housing—that in fact it probably never will be done.

Chermayeff: I think it's good. There's a great deal of potential.

Zeidler: It's very efficiently planned.

Chermayeff: This also adds dimension: apparently, the owner originally had in mind only shops, and the architects showed how to put dwelling units on the top.

Credits

Architect: Booth & Nagle, Architects/Planners; Laurence Booth, James Nagle.

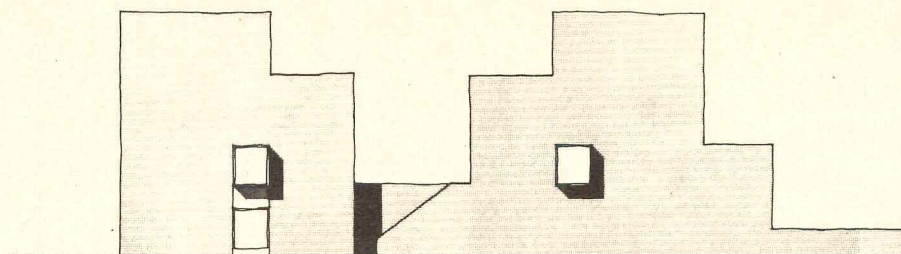
Consultants: Wiesinger-Holland Ltd., structural; Wallace & Migdal Inc., mechanical.

Modelmaker: William Wischmeyer.

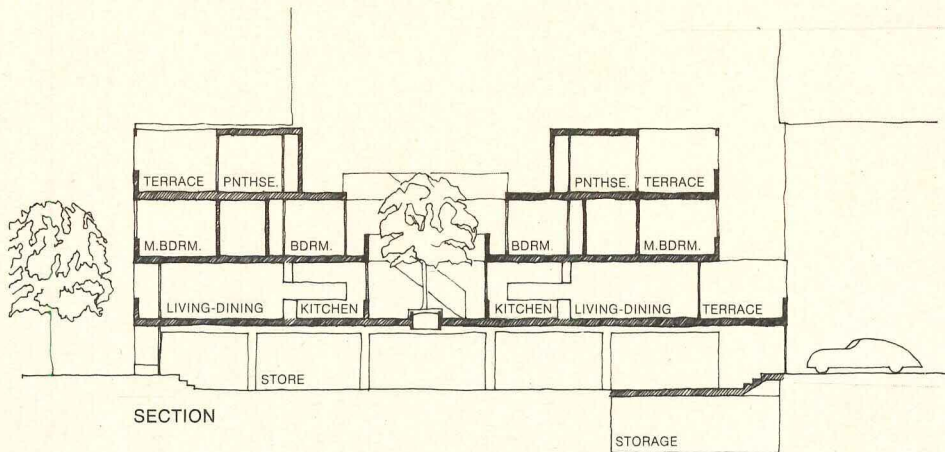
Photographer: Marvin Ullman.

Renderer: William Wischmeyer.

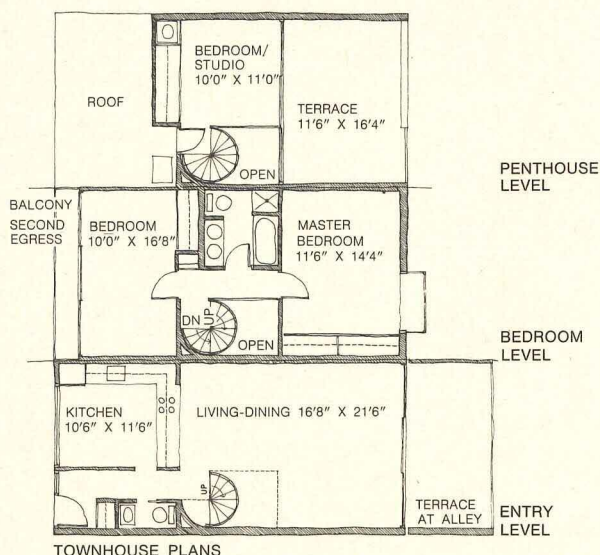
Client: Davids' Development Co.



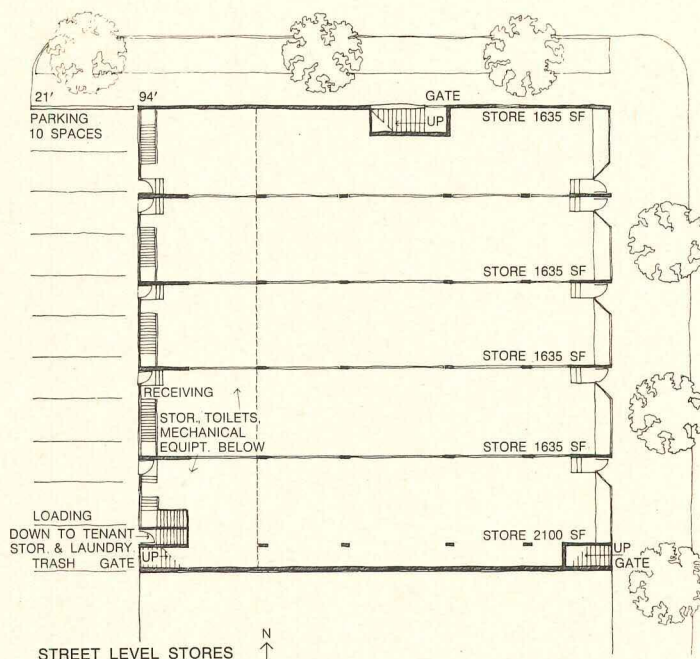
EUGENIE STREET ELEVATION



SECTION



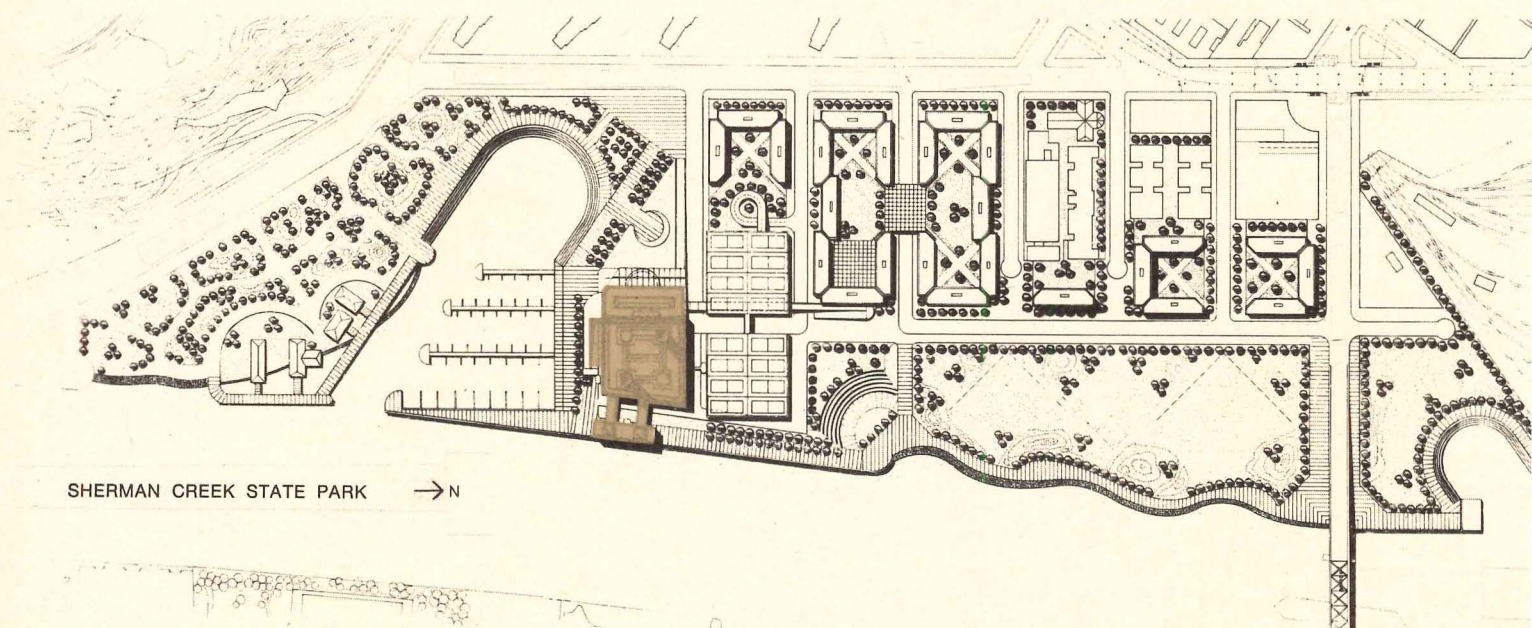
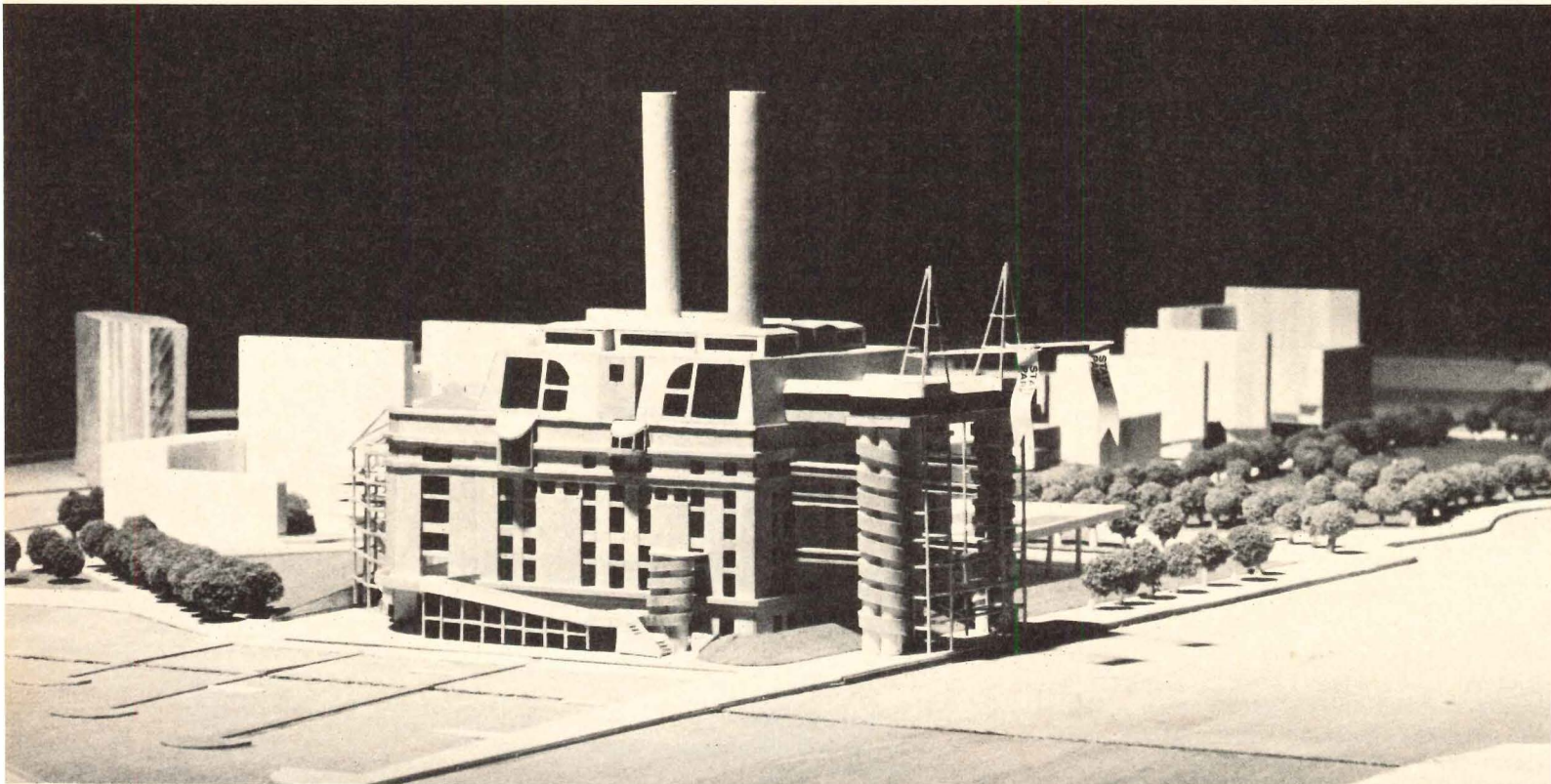
TOWNHOUSE PLANS



STREET LEVEL STORES

Citation

Richard Dattner & Associates, Architects



The Sherman Creek State Park creates a recreational facility that includes the renovation of an existing power plant.

Program: A "metro-park" to serve a population of about 200,000 people and to include year-round recreation facilities, landscaped open spaces, development of the riverfront and marina facilities.

Site: 35 acres in upper Manhattan on the Harlem River in New York City.

Solution: The Con Edison power plant has been retained as an enclosure for indoor recreational

uses including a galleria and restaurant, theater, tennis courts, and swimming pool. Surrounding land development includes a boathouse and marina, a river promenade and bike paths.

Jury comments

Zeidler: The idea is tremendous and what he has done with it is very romantic. It's handled with great playfulness.

Chermayeff: It's terrifically ugly to begin with and the architect, instead of being ashamed of that and trying to make it attractive, has added stuff in a bold and almost carefree way to make something positive out of that ugliness.

Rudolph: Of course, I don't find the original ugly at all. It's strong.

Credits

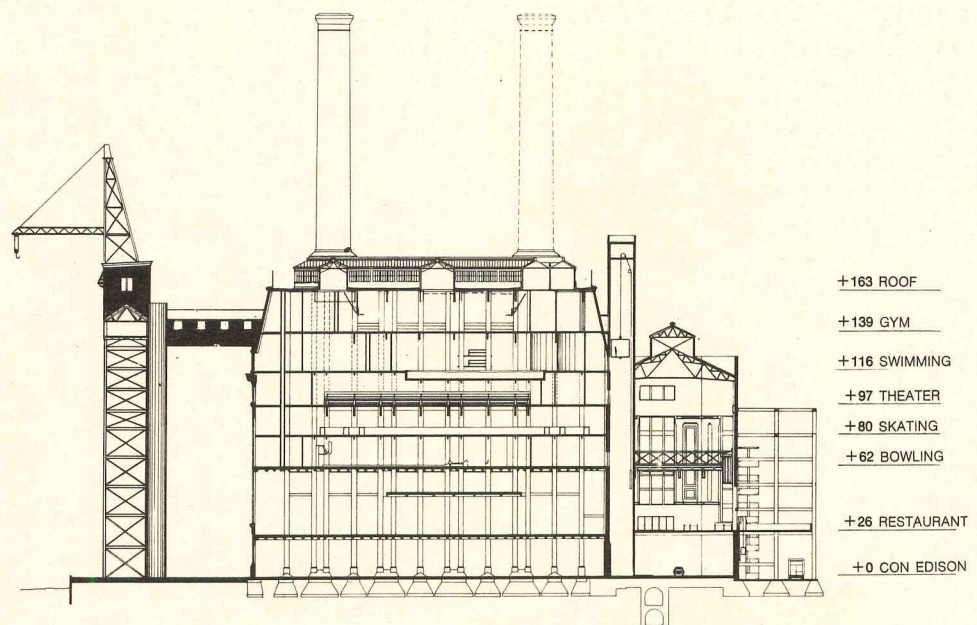
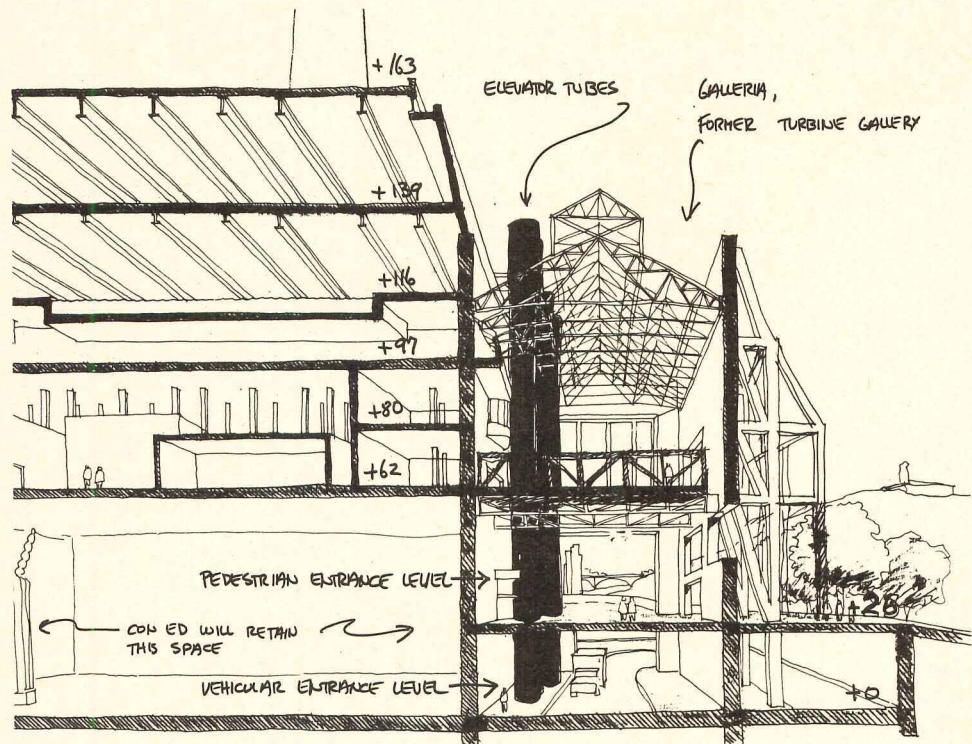
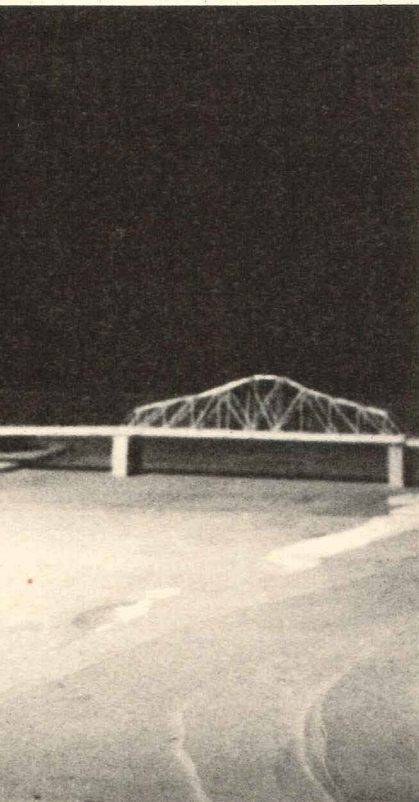
Architects: Richard Dattner & Associates, Architects; Richard Dattner, John Klausz, Bernard Zalon, project team.

Consultants: Robert Rosenwasser, structural; Harold Hecht, mechanical; Olko Engineering, marine; Nissim Zelouf, costing.

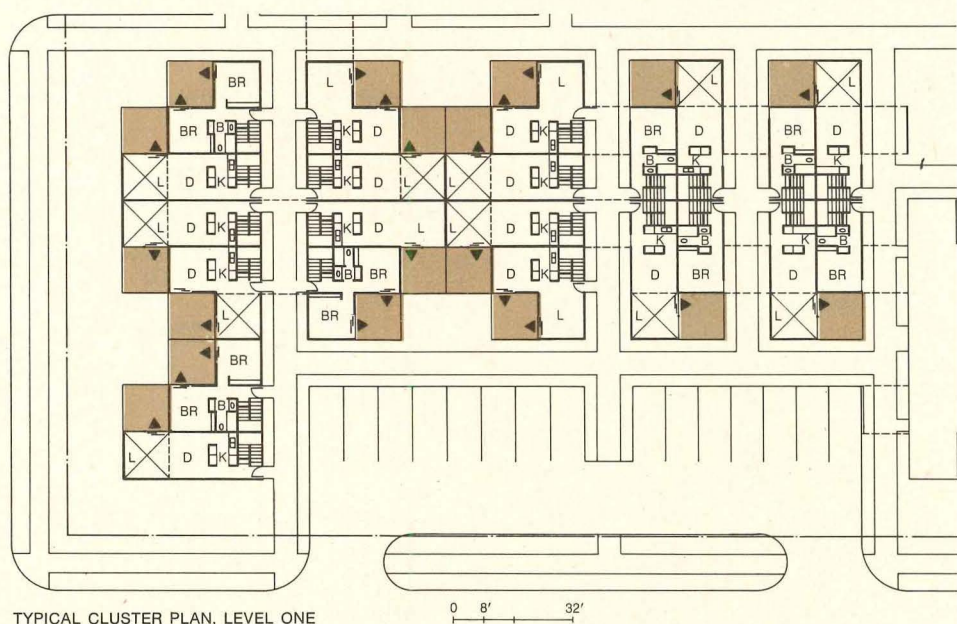
Photographer and renderer: Richard Dattner.

Modelmaker: Bernard Zalon.

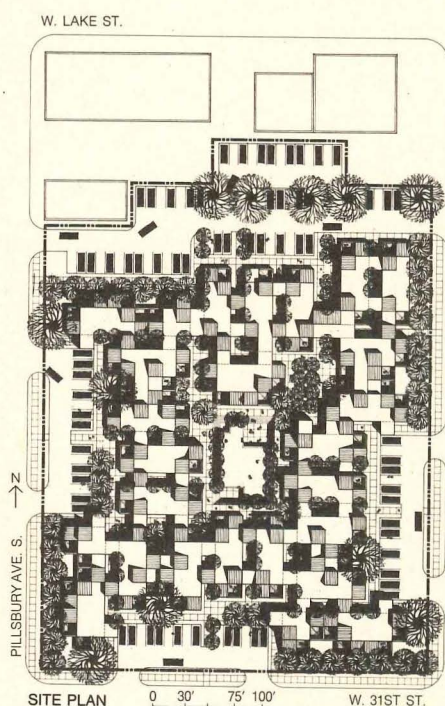
Client: State Parks and Recreation Commission for New York City.



Williams/O'Brien Associates, Inc.



TYPICAL CLUSTER PLAN, LEVEL ONE



Findley Place Housing Development, to be built in Minneapolis, stresses variety together with a sense of community and territoriality.

Program: To develop a medium density urban housing concept for one site, with flexibility to apply to other site situations.

Solution: Desiring to provide as many unit types as possible, the architects developed a planning/construction module based on a 12' x 12' bay. This was dictated by the core module, containing either kitchen and stair or bath and stair. Other modules surround the core, forming many different configurations. Units are clustered to produce neighborhood pedestrian streets serving four to eight units each, and giving a sense of territorial interest to residents. These streets are linked with decentralized parking and with the major central space. Community facilities will be housed there in a "nonbuilding," one-half level below grade. It will include day care, laundry, mailroom, and multipurpose space.

Materials and construction: Wood frame construction with plywood siding and enameled metal roofs. The community building will be of precast concrete.

Jury comments

Rudolph: This is quite human in its relationship of solids to voids.

Eisenman: On all sides except where the houses face the large parking lot, there is a good relationship.

Rudolph: One thing that he did, I think is quite good. In most of the parking areas, he avoided double parking spaces. He made only one row of parking to keep, to a degree, a sense of enclosure from the street. That then meant piling a great many cars on the one side.

Chermayeff: Overall, as a plan, it has a very nice characteristic: proximity of the car without parking lots becoming too strong and dominant. It has a nice penetration of pedestrian ways and public space in the center. That's humane scale using a modular, disciplined set of components. A very appealing direction for urban housing.

Credits

Architects: Lorenzo D. Williams, president; James W. O'Brien, director of design; James W. Geisler, designer; Timothy R. McCoy, designer.

Modelmaker, photographer and renderer: James W. Geisler.

Client: Findley Place Housing Corporation.

Citation

Benjamin Thompson & Associates, Inc.

The Faneuil Hall Market, historically the center of Boston's produce market, will take on the flavor of a 20th-Century potpourri.

Program: To restore and re-use a landmark of considerable interest; to find economically sound adaptive uses to fit the dynamic needs of an urban community; to make the market a focal point and crossroads for the city; to make the market a genuine and evolving place, neither "historic" nor "modern." (See P/A Sept. 1971, p. 157) While a developer was being sought, a \$2 million federally funded exterior restoration project was undertaken by the Boston Redevelopment Authority in 1972, for which Stahl/Bennett, Inc. is the architect.

Site: A six-acre urban renewal area directly adjacent to the new City Hall complex in Boston.

Solution: 400,000 sq ft of commercial space to house over 150 shops, two dozen restaurants, a large food and flower market and office space. Complete signage and street vocabulary as well as tenant design criteria have been worked out by the architect. The two streets running between the three buildings will be pedestrian, partly open, partly enclosed, in an all-glass structure.

Jury comments

Chermayeff: It has tremendous potential to be more than a charming, historic preservation. If the economics of the project dictate the creation of new, usable space, then the glass shed could be the best way to do it. It's a good architectural solution because of the neutrality and transparency of the glass.

Rudolph: The idea is really quite sound, but is it carried out very well architecturally?

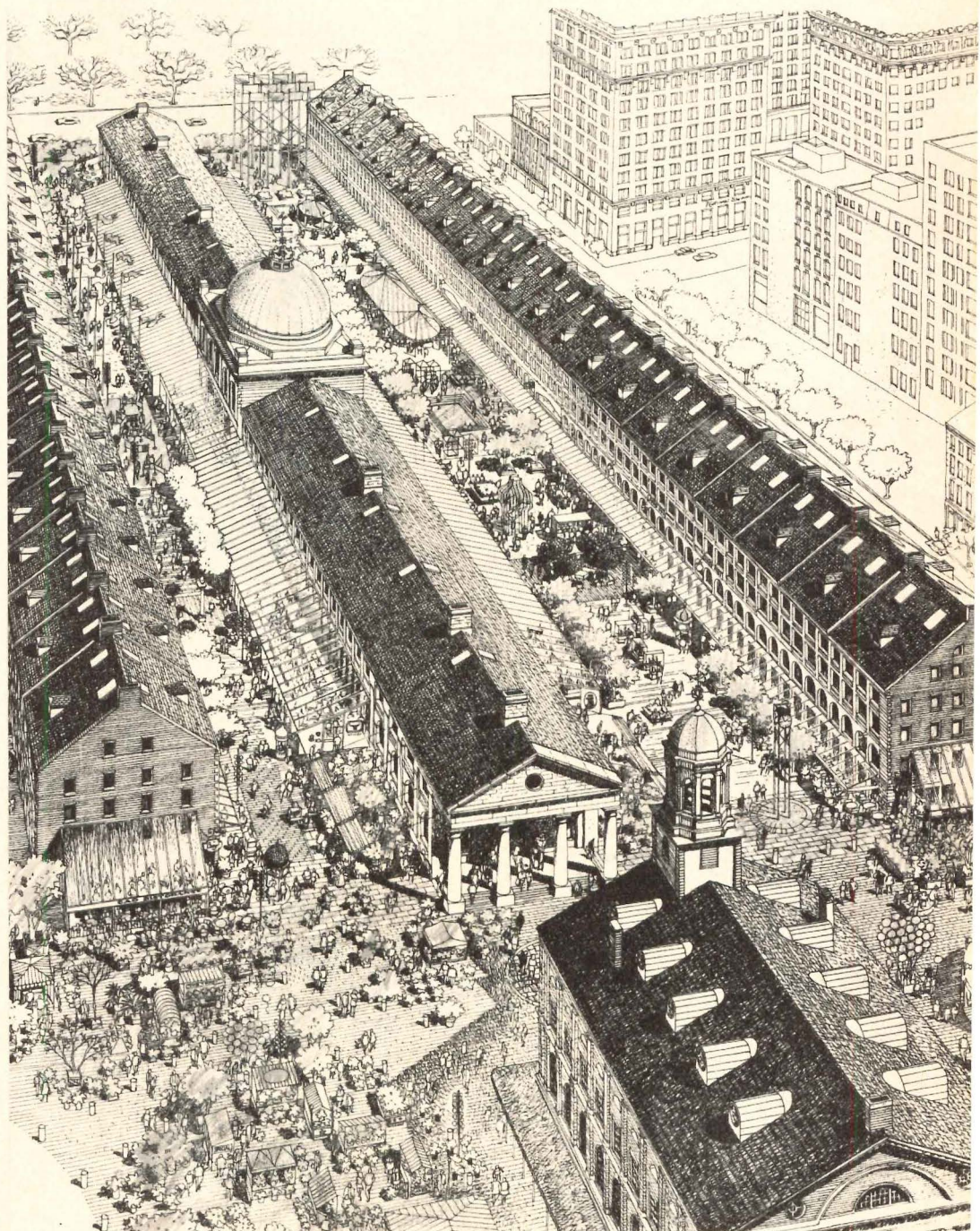
Zeidler: It is exactly the background architecture we need today in the urban field. Even if the architect has added nothing, it may be better, as many times the bravado pieces destroy the creation of an urban fabric.

Credits

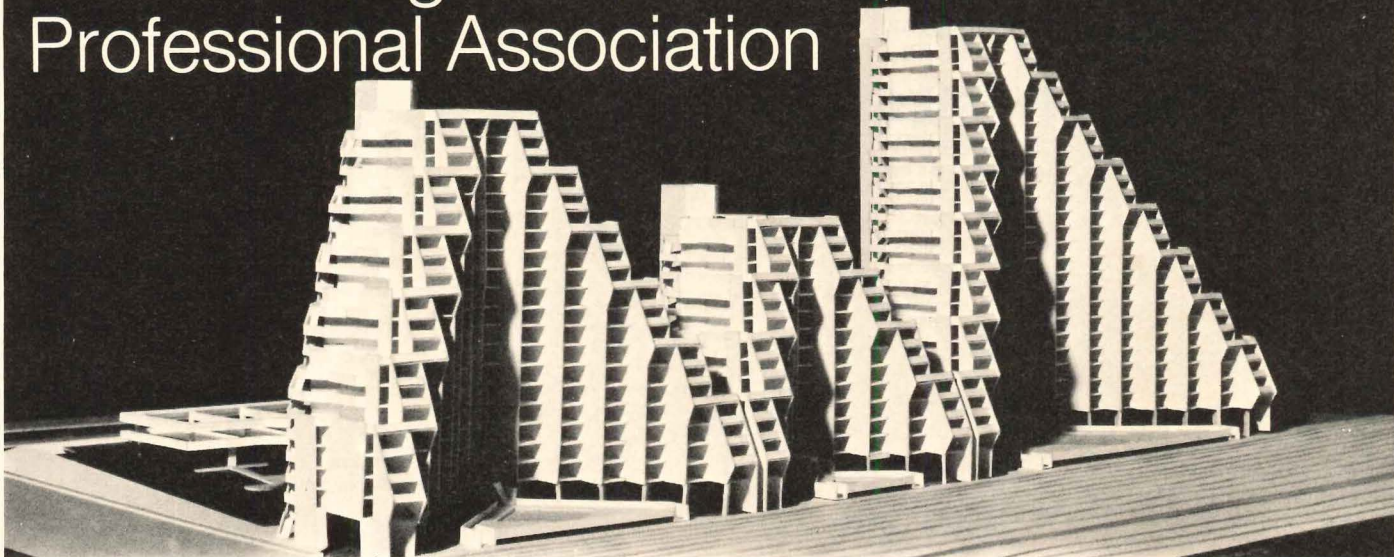
Architects: Benjamin Thompson & Associates; Benjamin Thompson, Thomas Green, partners; Bruno D'Agostino, Jane Thompson, associates; Marcus Rector, project architect.

Consultants: Nichols, Norton & Zaldastani, Inc., structural; Ray B. Stevens Engineering, HVAC.

Client: The Rouse Company.



William Morgan Architects, Professional Association



Oceanfront Condominium achieves density and profile goals, yet each apartment has a view of the Atlantic at Ocean City, Md.

Program: Density was a major factor in this rapidly growing oceanfront strip. The client also asked for a low profile building which would cast the shortest possible afternoon shadows, and for more parking (1.5 spaces per unit) than the required minimum.

Site: A low-lying spread of beach about a mile north of the traditional town areas, composed of three-story frame houses.

Solution: The sculpture of shifting sand dunes inspired the three-tower building of 13, 19, and 25 stories—each to be built as a separate phase—resulting in a final density of 72.5 units/acre. Every 1- or 2-bedroom apartment has a 17-ft terrace. Units are stacked vertically and terminate in roof terraces at three-floor intervals.

Materials and construction: Concrete bearing fins and flat slabs; piling supports the ground floor columns spaced for parking efficiency. Concrete is sprayed with a white, weather-proofed textured coating.

Jury comments

Rudolph: You see, it's very clever. He's made it wider where the living room is and narrower where the kitchen or services are. He shifted the units off center.

Zeidler: What I think is really good is that he has a deep unit. It's almost as deep as a double-loaded corridor.

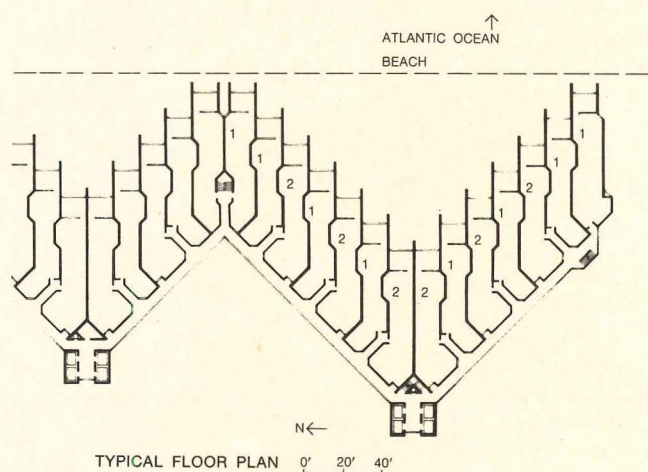
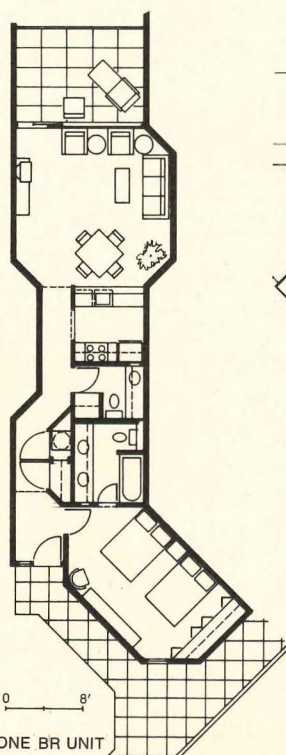
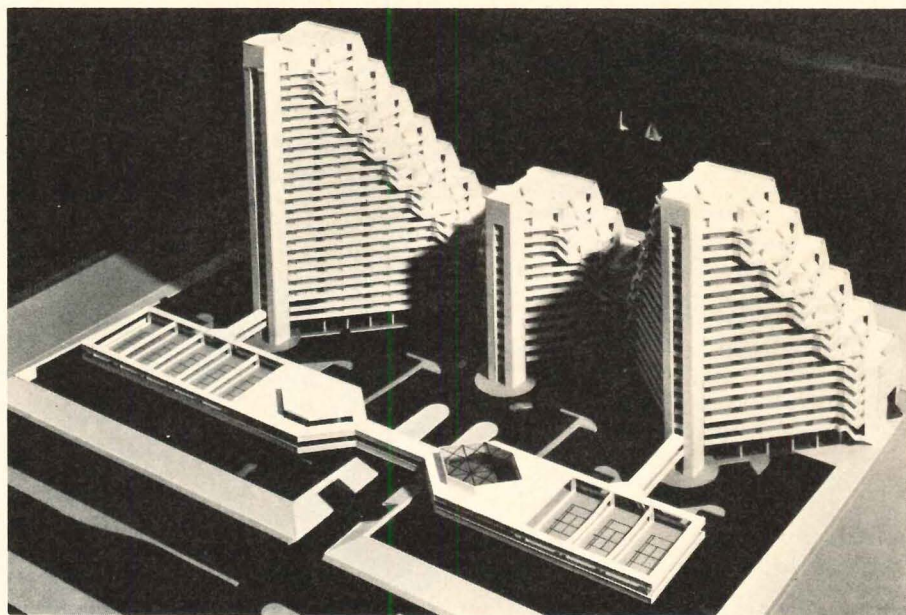
Chermayeff: And it's broken up into a reasonable scale. I think we do question the massive parking lot, and its relationship to the massing of the units, but he does have an ingenious tennis court thing in here to break up the parking.

Eisenman: What's disturbing to me is the harshness of those angles and the repetitious nature. I'm not talking about the units. I think the units do blend quite nicely.

Rudolph: I think it's excellent. As a solution to what is usually proposed, when you compare that to the usual apartment, it's very rich.

Credits

Architect: William Morgan, designer; Thomas A. McCrary, project manager; Theodore C.



Strader, project architect.

Consultants: Sherrer-Bauman & Associates, structural; Geiger-Berger Associates, P.C., special structural; Atchison & Keller, Inc., mechanical; William Lam Associates, Inc., illumination.

Modelmaker: William Morgan Architects.

Photographer: Ronald Thomas.

Client: John S. Whaley.

Citation

Don M. Hisaka & Associates, Architects, Inc.

Renovations and remodeling of Rocky River High School in Ohio provide a new focus for existing facilities and renew old spaces.

Program: Given a 25-year-old school with conventional cellular classrooms, a lack of spatial variety, and long, dull corridors, the architects were asked to provide a new media center, some flexible space, and new spirit. The media center was to be the nucleus.

Site: Flat, 39.14 acres flanked on the north and west by two major crosstown arterial roads.

Solution: Since the prime location for the new media facility was a central one, the most desirable spot was an existing service yard. That space, transformed into a two-story skylighted media center, is accessible from three directions on two levels. By opening up corridors into the center, the corridors themselves become less restricted. Space vacated by the previous media center will become flexible classrooms and an enlarged art department. Other departmental expansion required three other minor additions.

Materials and construction: An exposed steel structure will frame the glass-enclosed media center, and acrylic skylights will form the junction between the new roof and the old.

Jury comments

Chermayeff: I think it's the best of these [reuse schemes] for one very straightforward reason: it has a very strong, simple concept to reuse the middle of this existing space. It apparently responds to the client's greatest concern—having the media center be the accessible core of the school. It's turning a liability into an asset.

Ziedler: The thing itself is of a minor nature.

Rudolph: It's given focus to the whole interior of the school and even, to a certain degree, to the perimeter. I think it's quite excellent.

Chermayeff: It turns a negative into a positive.

Eisenman: In a very nice way.

Credits

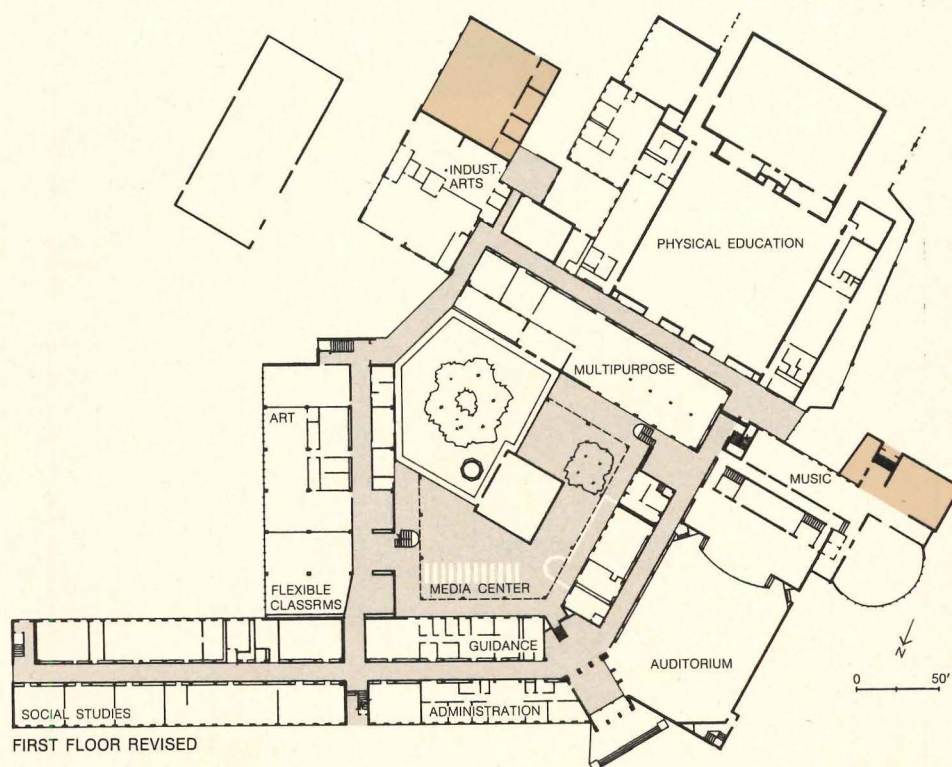
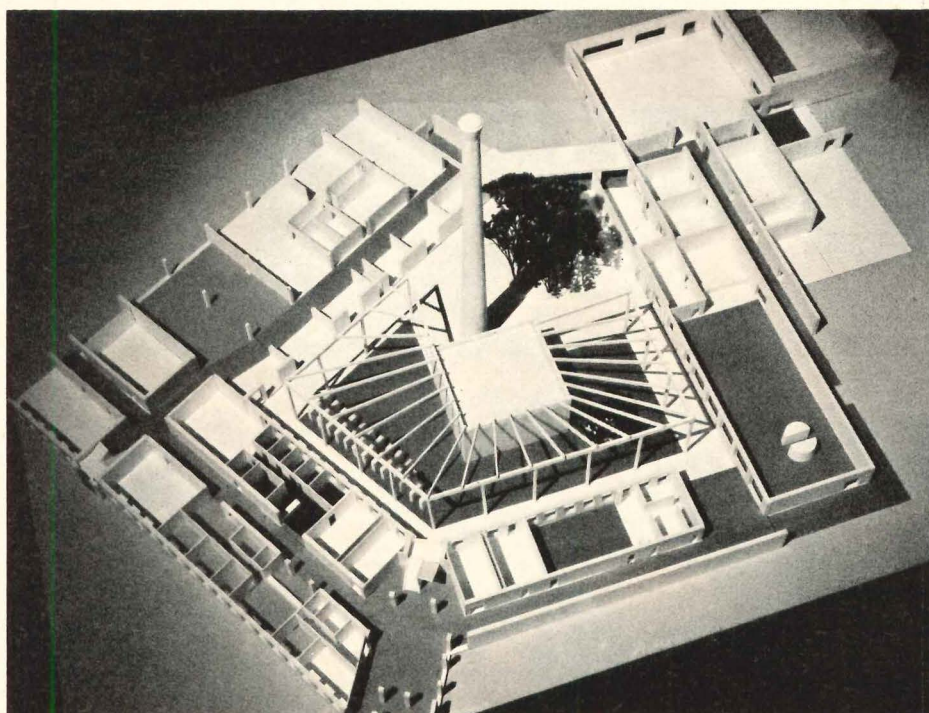
Architects: Don M. Hisaka, principal; George Saire, senior associate, design; James D. Gibbons, senior associate, project architect.

Consultants: structural, Gensert-Peller Associates; mechanical, Evans & Associates, Inc.; electrical, V.A. Lombardi & Associates, Inc.

Modelmaker: Rick Lannoch.

Photographer: Thom Abel.

Client: Rocky River City School District, Rocky River, Ohio.



Citation

Backen, Arrigoni & Ross, Inc.

James L. Jones Alternative Learning Center was designed to provide a new optional setting for the old process of socialization.

Program: An urban center for therapy, education, and social involvement as an alternative environment for dealing with the process of socialization in young adults. The center, operating 24 hours a day, will house facilities for 20 live-in youths and an additional 20 youths will share the common activities area.

Site: A busy commercial strip in Los Angeles.

Solution: A low-scaled building in character with the neighboring buildings, bisected by a glazed internal pedestrian street. Three groups of living quarters separated by interior courts for light and ventilation are placed to one side of the street, and common recreational areas, administration offices, and house parent/guest quarters are located on the opposite side. The overall in-

ternal organization was developed on the idea of a village to simulate a middle class environment.

Jury comments

Chermayeff: It seems to me that this type of building is normally a fortress that turns its back on the city. I think the architect has made something very positive out of a problem that is normally not made into architecture.

Zeidler: This is a small-scale building that creates a strong feeling. It would be quite a delightful place to be in and to live in.

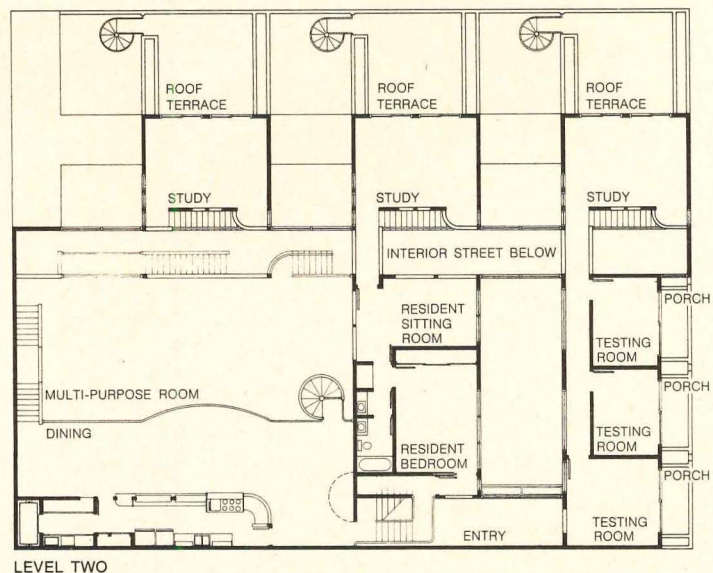
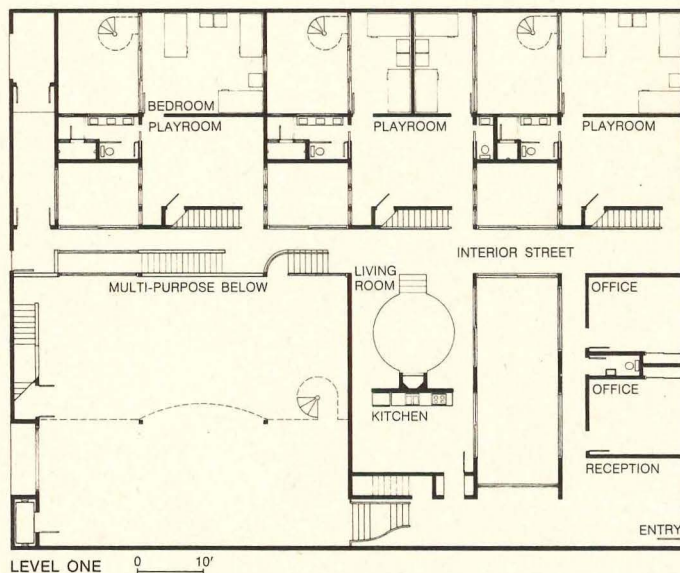
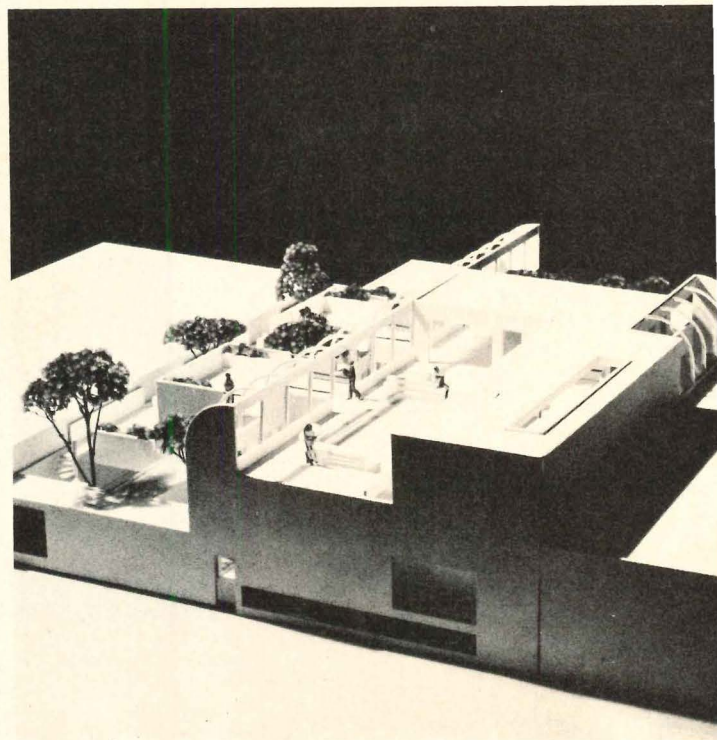
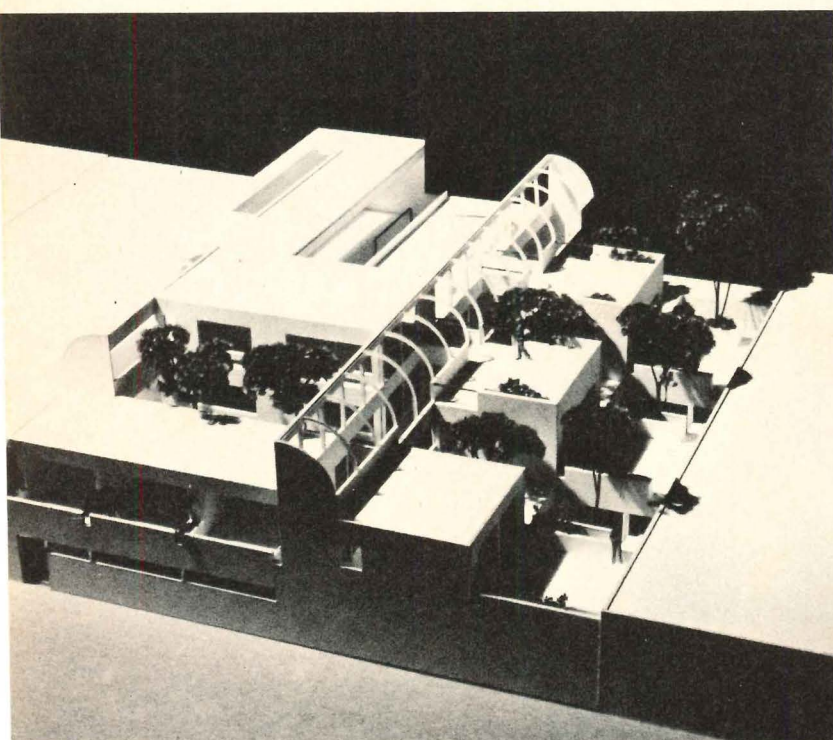
Credits

Architects: Backen, Arrigoni & Ross, Inc.; William DiNapoli, member of the design team.

Consultant: Process Oriented Design (P.O.D), landscape architects.

Modelmaker and photographer: William DiNapoli.

Client: Mrs. Shirley Jones.



Citation

Lorenz Williams Lively Likens and Partners

Main Library Addition for The Ohio State University, Columbus, skillfully combines new with classical around an open plan.

Program: To design additional bookstack capacity and to provide for reorganization of the old closed stack system into an open stack system with contiguous spaces.

Site: West of the existing 64-year-old limestone-clad structure, facing a campus road which will be closed and turned into a pedestrian way.

Solution: A four-story screenlike "wall" containing additional stacks, offices, and reading rooms. Two sides are cut away, to expose the existing classical façade and to facilitate docking and receiving activity. An existing lightwell centrally located was skylighted to provide a natural orientation for the open stack system.

Materials and construction: Limestone on the new west façade recalls that of existing building.

Jury comments

Eisenman: I like the way he puts that piece on . . . here's a case of new space being added and respecting the old building.

Chermayeff: In fact, I think it's an improvement on the massing of the original.

Zeidler: It's a good formal solution to a very complex problem.

Credits

Architects: Lorenz Williams Lively Likens & Partners; Leo E. Lauterbach, partner in charge; Stephen J. Carter, project designer; Donald R. Williams, job captain.

Associated architects: State of Ohio, Dept. of Administrative Service, Division of Public Works; The Ohio State University, Office of the University Architect.

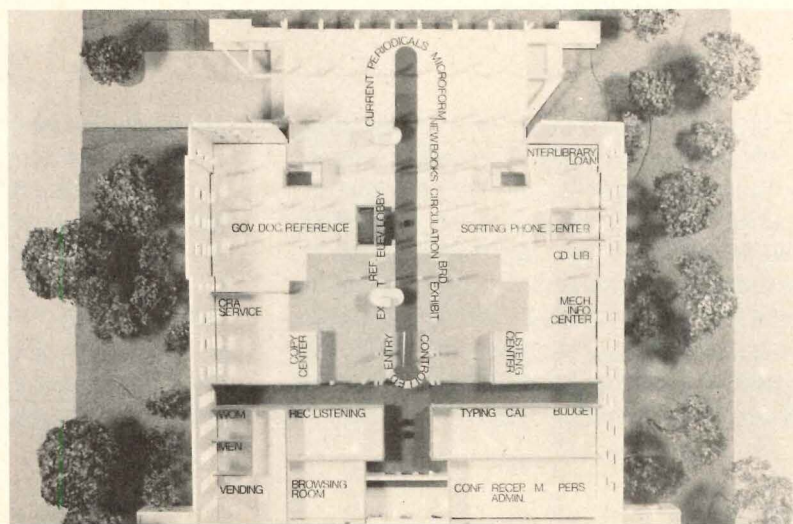
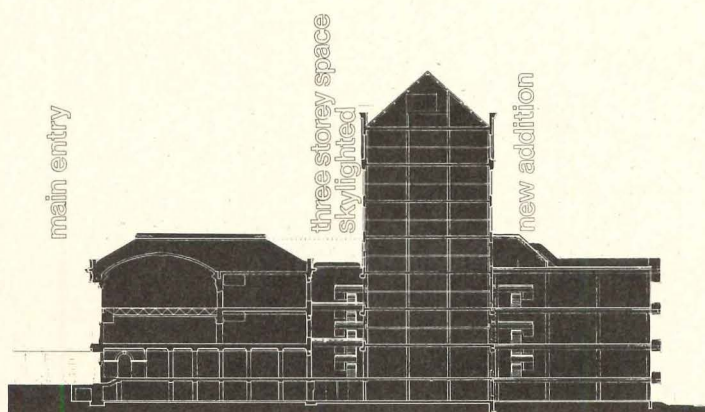
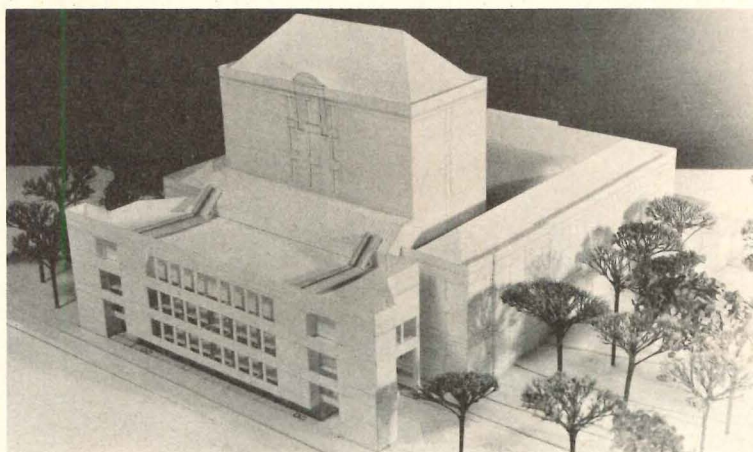
Consultants: Lorenz Williams Lively Likens & Partners, structural; Heapy & Associates, mechanical and electrical; Lorenz Williams Lively Likens & Partners, interiors; Vie Design Studios, David Battle, graphics; Dr. Ellsworth Mason, library.

Modelmaker: Stephen J. Carter, John W. Berryhill.

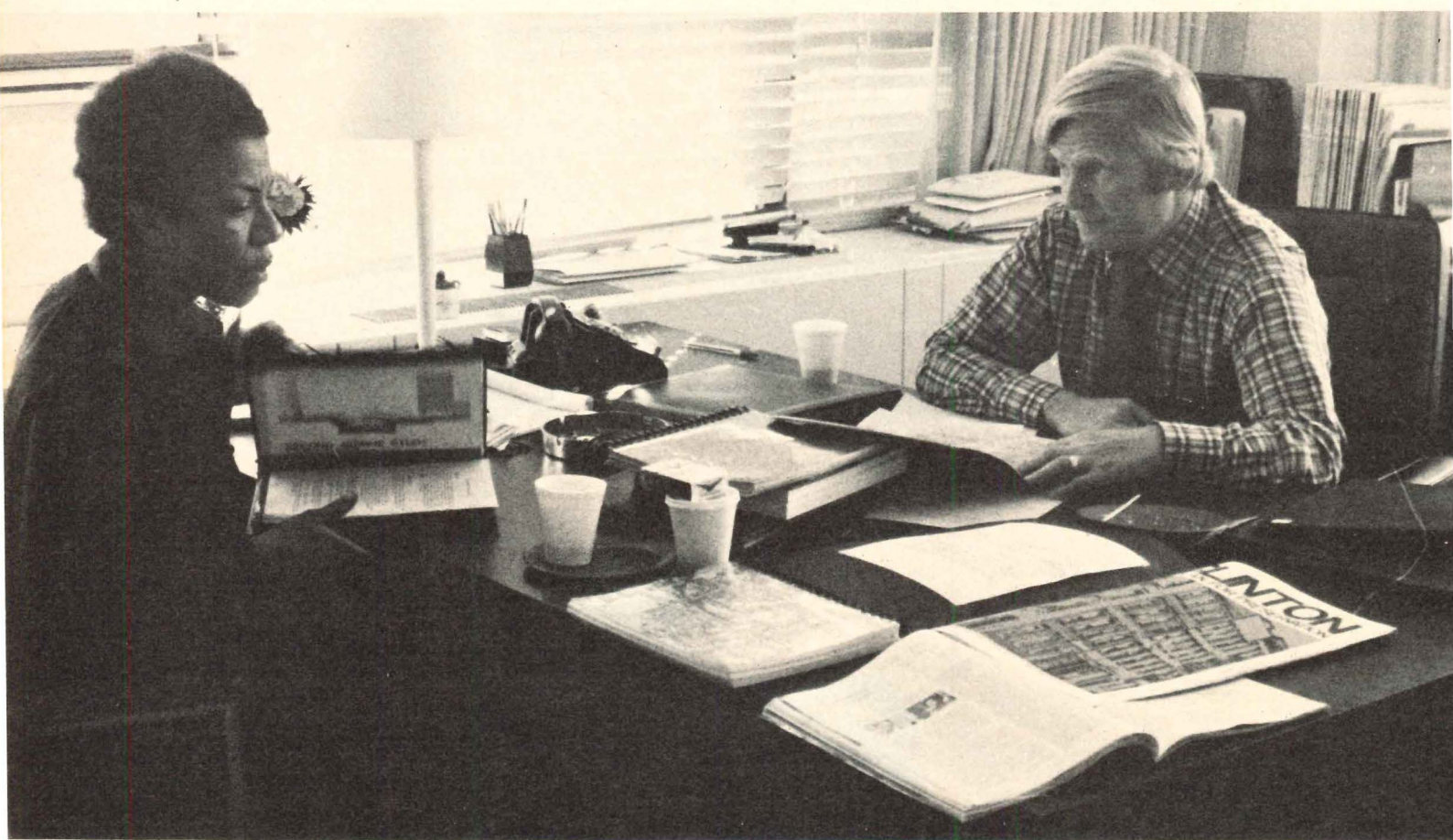
Photographer: Stephen J. Carter.

Renderer: Barbara Fabing.

Client: The Ohio State University.



Make no fragmented plans



Whitley

Copeland

After slogging through 104 amply presented urban design and planning submissions over a two-day period, jurors Joyce Whitley and Lee Copeland came to a conclusion: Few design or planning proposals addressed all the issues they considered necessary. They noticed an absence of proposals that acknowledge the entire scope of planning and design considerations, including defining the problem, formulating the process of planning (with user need input), determining means of implementation, drawing a conclusion, plus anticipating the impact of that "end product." Al-

though recent years have witnessed a turning away from the total reliance on a physical solution, Whitley and Copeland noticed another failing. The new open-ended flexible approach has resulted in a number of planning studies that avoid concrete conclusions and tangible solutions. Rather, many urban design and planning studies are concerned with compiling inventories of the existing environments—a process depending on analysis only—which they consider only one component part of planning and urban design considerations. The same kind of fragmentation also was

manifested in a number of presentations that still emphasized the physical design solution only—in other words, drew hard conclusions without showing the broad considerations that needed to be taken into account. In cases where impact was weighed, again only one aspect of the overall impact often would be explored.

Looking through the proposals, the two jurors came up with only three submissions to premiate with one award and two citations. These three premiated submissions coincidentally deal with existing urban contexts—two in New York and one in Boston.

Whitley: The state of the art is in bad shape, if all 104 entries are an example.

Copeland: The submissions are not representative of the planning profession. I would especially criticize the urban design solutions. There is missing any emphasis on quality of urban experience in urban design proposals, and on the process, participation, and implementation techniques. There is little consideration here of psychological, social, and physiological needs of the users, and the way in which the physical environment can contribute to those needs. It didn't appear as if the submissions had a clear understanding of what they were working for. And while some studies addressed certain elements, the *relationships* between those elements was missing. Almost all the proposals do not recognize the responsibility of urban design as a bridge between satisfaction of user needs and the architectural solutions.

Whitley: Lee is inclined to emphasize the urban design element more than I am, although there are no real disagreements between us. But the plan should give guidelines for the development of the physical environment—with the end product as important as the process.

Copeland: On the other hand we should recognize it's somewhat contradictory to the nature of planning "products." Planning tends to be very process-oriented and is often times meant to provide the rationale for initiation of action, because it realizes that the end product may never be what you might visualize.

Whitley: However most planning documents now tend only to inventory the existing environment. There is an unwillingness to say "Having said that, what does it mean?"

Copeland: There were some very good elements of the to-

tal planning process presented in these submissions but in some cases those elements (e.g., whether analysis or impact statement) didn't really make it clear what function they served in the total planning continuum—why they started, where they started, and what they expected to contribute to the continuation of the process. By the same token, there were a few large "megastructure" concepts that initially looked as if they had some strengths conceptually, but you realized they had been transferred directly into end product architectural solutions. They really didn't recognize issues of time and multi-participation in terms of development, designers, and user, which will affect the concept.

Whitley: There are certain desirable objectives in planning, preservation of open space, integration of heterogenous communities, revitalization of declining commercial areas, integration of new development with the old. But there is often no recognition of core problems. For example, with the town that had a declining commercial strip, there was no discussion of market issues; what would be required to support the retention of commercial functions in that locality. There was the implicit assumption, that if you jazzed up the stores, it would in itself be enough. We may come up with physical design solutions, but the problems are not physical design problems. Planners and urban designers need to recognize that.

Copeland: Many plans recognize qualities important in urban design, but may not recognize the uniqueness of a particular context within which that design must be carried out. Often the text of the proposal will state the intentions, policy plans, process, community involvement, etc. At the same time it will emphasize a physical solution—without explaining how policy and intentions translate into physical product. There often seems to be a gap.

Whitley: Many of the proposals generated left you hanging. For example, the planning study for salvaging an existing housing project, suggested changing to home ownership as part of the solution. But was it really economically feasible to change the ownership? It was a significant study but didn't go far enough. It didn't address the issues generated by the recommendations.

Copeland: And the plan for revitalizing a small town—there is no communication of the quality of the town and what is worth renovating.

Warren W. Gran & Associates

A new zoning district proposed for the neighborhood of Clinton in the west midtown section of New York City attempts to preserve a low-rise low-income neighborhood while allowing for high density development.

Program: A low-income, blue collar neighborhood in west midtown Manhattan has been threatened by increasing pressure of land speculation and development. Working in conjunction with community representatives and the New York City Planning Commission, the architects devised a land-use zoning plan to preserve the neighborhood, as part of a city-wide program. Besides strengthening the low-scale residential community without forcing an increase in rents, and still allowing for development, the parties involved wanted to retain local manufacturing business and wholesale/retail enterprise because of the work force employed there. Other aims of the plan were to integrate the new development with the old existing environment, and buffer the residential community from the impact of this new development—including the projected New York City Convention Center, which is planned for the waterfront between 44th and 47th Sts.

Site: From 41st St. to 59th St. and from Eighth Ave. to the Hudson River.

Solution: To create a Special Preservation District to be implemented through zoning controls. The heart of the Clinton community roughly between Eighth and 10th Avenues, 43rd to 56th Sts. would be declared a Preservation Area with a zoning of R-7 density, and a six-story height allowed on side streets. Adjacent would be the Transition Area (roughly 10th to 11th Ave., 43rd to 50th Sts.) with mixed uses including manufacturing and commercial, and residential density rising to R-8 in some areas. Next, the Manufacturing Area (11th to 12th Ave., 43rd to 56th St. excluding the Convention Center and Clinton Park) would retain existing manufacturing uses and zoning. However, the plan warns the new West Side Highway might require a re-examination of this area. The Perimeter Area, basically along Eighth Ave., 42nd and 57th Sts., would allow commercial-residential uses with a high density (FAR 10) for speculative development. The plaza bonuses normally given to developers

would be revoked and, instead, a 20 percent bonus on floor area would be provided to the developers for community improvements, housing rehabilitation, and parks. Finally, there would be the Waterfront Area, west of 12th Ave., 41st to 59th St. Here, the plan proposes keeping zoning for existing manufacturing uses, with recreation facilities encouraged where they don't interfere with shipping activity.

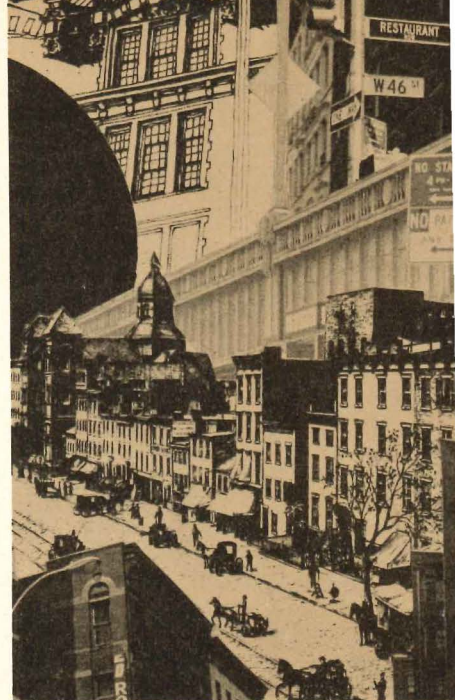
Besides the areas outlined above, the architects have proposed that demolition of sound housing be prohibited except by permit; that the relocation of Clinton tenants be kept within Clinton and to comparable apartments with comparable rents; that rehabilitation plans be reviewed for possible use of appropriate subsidy plans. The plan also proposes that a Clinton Development Fund or similar agency be established to oversee the FAR bonus zoning.

In addition the architects developed a low-rise medium density prototype for new development within the Preservation Area, and a low-rise and high-rise configuration for the Transition Area, where vertical mixed-use building types provide housing and open space over an industrial ground floor. Two pedestrian paths thread through the scheme: One across 46th St., linking the theater and restaurant district with the Convention Center on the waterfront; the other across 53rd St. where it terminates in a proposed recreational platform on the Hudson River. To date, special district zoning has been approved by the New York City Planning Commission and has just received final approval by the Board of Estimate.

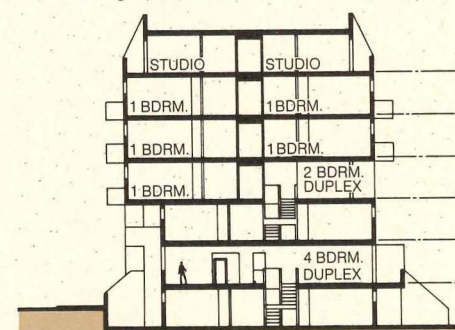
Jury comments

Whitley: This is the clearest planning document I've seen in terms of its authority of presentation of the problem and the solution. It has a clear rationale and a clear definition of the problem. It has a very strong implementation component, with a view of legal tools, and a specific recognition of how to use these to preserve certain physical characteristics—the quality of the environment.

Copeland: It represents a real prototypical problem, occurring in almost all American cities. There is a recognition that the core of the community is still vital, and this program preserves that vitality. Here there is the attempt to preserve



Photomontage prepared for community report



Section of proposed low-rise medium density prototype shown in collage far right.

the essential core while allowing fairly substantial change to occur on the perimeter, which has already been eroded. We question whether this is a permanent solution, because it is also recognized that there is a great pressure for change on the perimeter. This plan recognizes that making a trade-off and allowing fairly extensive development on the perimeter will help preserve the interior, at least for a time.

Whitley: This is almost the opposite of the usual approach, where the major thrust is to accommodate developing interests first, then do some ameliorating work on what is left over.

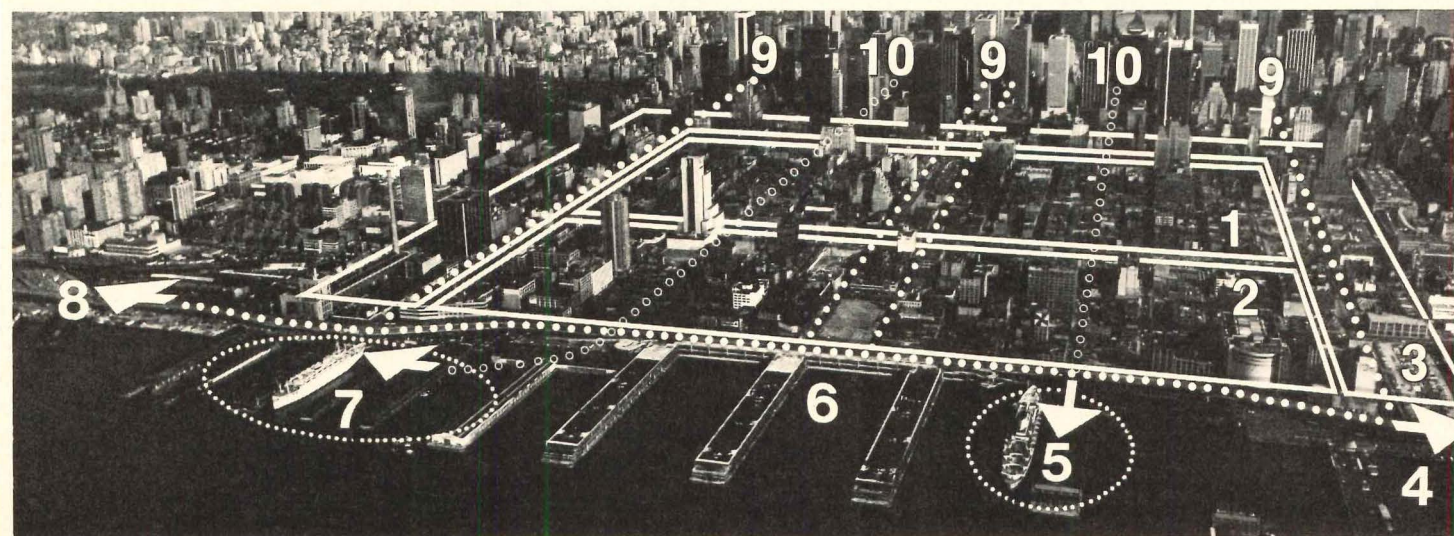
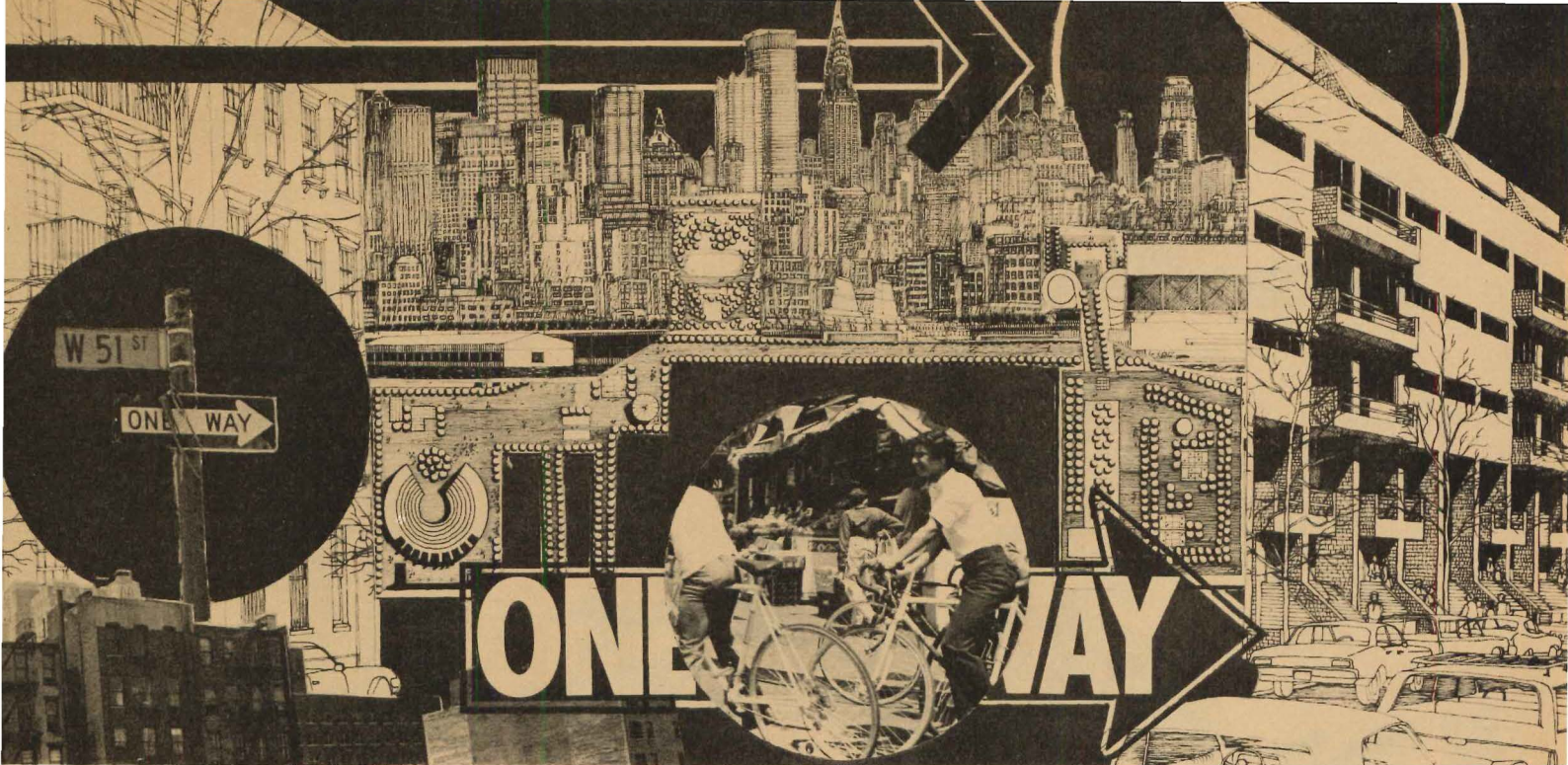
Copeland: But they are still accommodating—by developing a holding strategy for the core, and allowing changes on the perimeter which no longer represent the community.

Whitley: There are some questions of course as to whether the legality of the zoning regulation will stand up in court, or whether the manufacturing and waterfront area will eventually be zoned also to a high density, (perhaps the perimeter zoning will exhaust development). But it is still a good clear well-supported document. Within the limits of what's do-able this is a reasonable response.

Credits

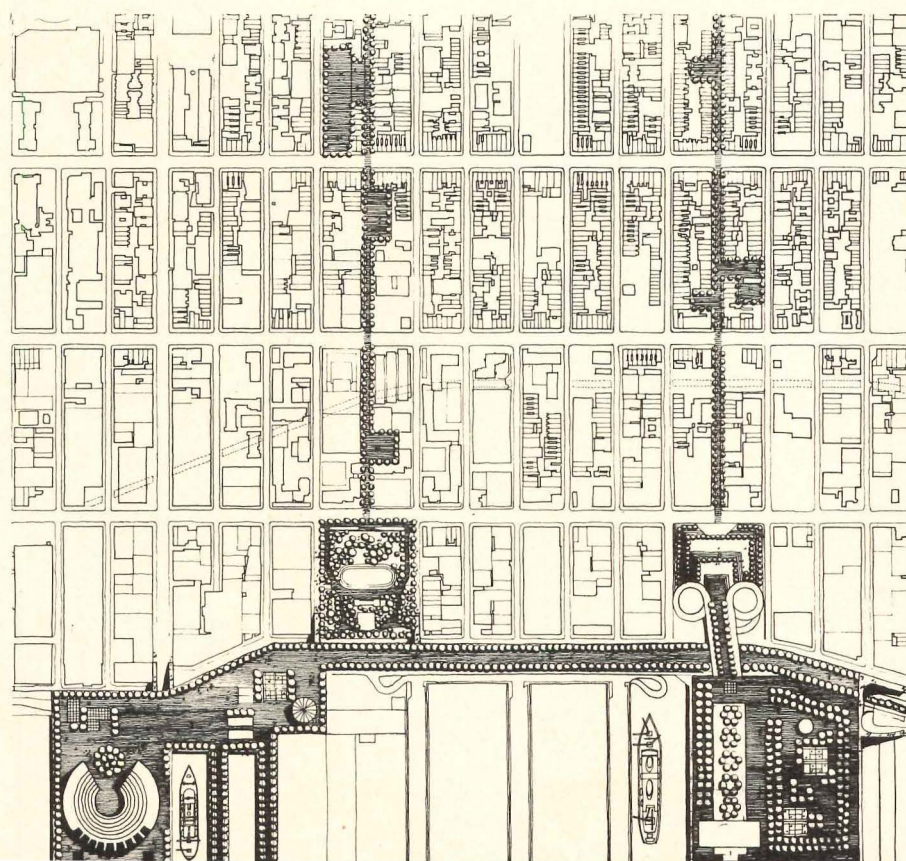
Project team: Warren W. Gran, partner in charge; Brian Sullivan, project planner; Gary Rogers, Eytan Kaufman, Stuart Markowitz, Barry Vanderpool, staff.

Participating agencies: New York City Plan-



Land Use Concept

- 1 Preservation area
- 2 Transitional area
- 3 Perimeter area
- 4 Circle Line Pier
- 5 Convention Center site
- 6 Passenger liner terminal
- 7 Recreation platform
- 8 New West Side Highway
- 9 New Mass Transit
- 10 Pedestrian Streets



ning Commission; Office of Midtown Planning and Development; Housing and Development Administration, President's Office of the Borough of Manhattan.

Consultants: Marilyn Groves, legal; Emanuel Tobier, economics.

Graphics: Albert Lorenz, Peter Primak—The Main Street Graphics Group.

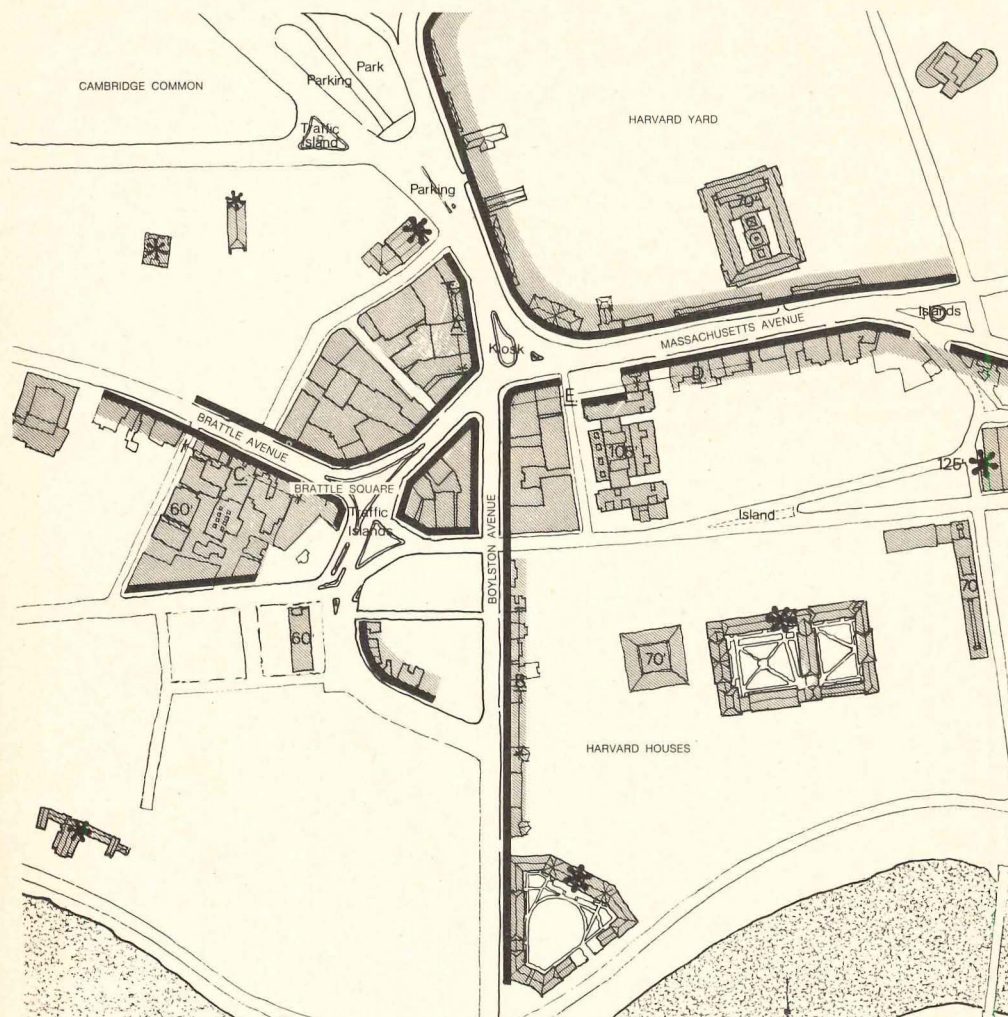
Landscape architect: Henry Arnold.

Structural engineer: Andrew Elliott.

Photographer: Stuart Markowitz.

Client: The Clinton Steering Committee, composed of members of Community Planning Board 4, The Clinton Planning Council, and the various city agencies.

Monacelli Associates



MARQUEE



SURFACE MODULATION AND NICHES



ENTRIES AND SURFACE TRANSPARENCIES



SURFACE VARIANTS



An urban design investigation of Harvard Square, Cambridge, Mass. presents elements of physical form and related considerations to establish planning guidelines there.

Program: The urban design consultants were asked by the Cambridge Planning and Development Department to prepare an analysis of the urban design issues of this section of town. Known for its proximity to Harvard University, this residential-commercial core provides shop-

ping facilities and restaurants in a low-scale environment of old and new buildings organized around a central intersection and transit stop. The area is undergoing increasing pressures from development however, including the projected JFK Library. Traffic and pedestrian congestion continues to increase. It was felt that the considerations had to be isolated beyond the local zoning code and local self-interests. The study attempts to identify those issues for which controls, guidelines, and criteria must be formed. *Site:* Harvard Square, intersection of Massachusetts and Boylston Avenues adjacent to Harvard Yard, Cambridge.

Solution: Working with a community task force representing local community groups, the Massachusetts Bay Transit Authority, and the Metropolitan District Commission, the urban design firm undertook the study as the analytic step in the integrated process of planning for change. By examining the physical aspects of the Square, the team isolated issues, concerns, and findings for consideration in the total planning process. The study analyzes the "urban context" (how it physically divides into sectors and the crucial retail facilities, transit activities, etc.; "elements of form" (building density, walls, reference points, open space, configuration, physical enclosures); and "movement and activity" (pedestrian, vehicular movement, parking and service areas).

Jury comments

Copeland: It is narrow in its view, and only one element of what we considered good urban design should be. It did address that element which is missing from a great number of the studies we looked at. It is really a kind of springboard for more detailed planning that could then follow from this—but should give more of a "lead-in" and "lead-out" clarifying what planning preceded it, and what specifically will follow.

Whitley: I'm not totally persuaded. As an inventory it's fine, but its meaning is unclear and the extent to which they analyze the elements unimpressive. I would give it an "A" for getting the right elements.

Copeland: "A" for remembering that this is a part of the alphabet. What is missing however, is the way in which these urban forms and elements contribute to environmental experience.

Whitley: They need to formulate more clearly what the real urban design and planning problems of Harvard Square are.

Copeland: They are trying to define the urban structure in which all these elements and activities take place. They recognize their limitations, but they don't make the connection between the physical structure they are examining and how, as a setting, it creates the real character of the square—how it relates to the specific activities that take place there, or the particular kinds of people who use it.

Credits

Project team: Theodore Monacelli, principal in charge; Ronald Ostberg, job captain;

Client: City of Cambridge, John Sullivan, city manager; Planning and Development Department of Cambridge, Robert Bowyer, director; Harvard Sq Task Force, Oliver Brooks chairman.

Citation

Raquel Ramati and
Ada Karmi-Melamede

A special transit land-use district for the new Second Avenue subway line will generate planning guidelines for subway station development and private construction along the 110 block corridor in New York City.

Program: A non-profit civic organization, the Municipal Arts Society, and the Department of City Planning of New York, undertook a study concerning the impact of the proposed Second Avenue subway on building development and quality of street life. They felt it necessary to formulate zoning mechanisms to unify new development, spur links between new buildings and the subway, promote pedestrian amenities, and encourage development reinforcing and preserving the character of the existing neighborhoods. The two parties worked closely with a steering committee comprising various community planning groups, professional organizations, and the Metropolitan Transit Authority.

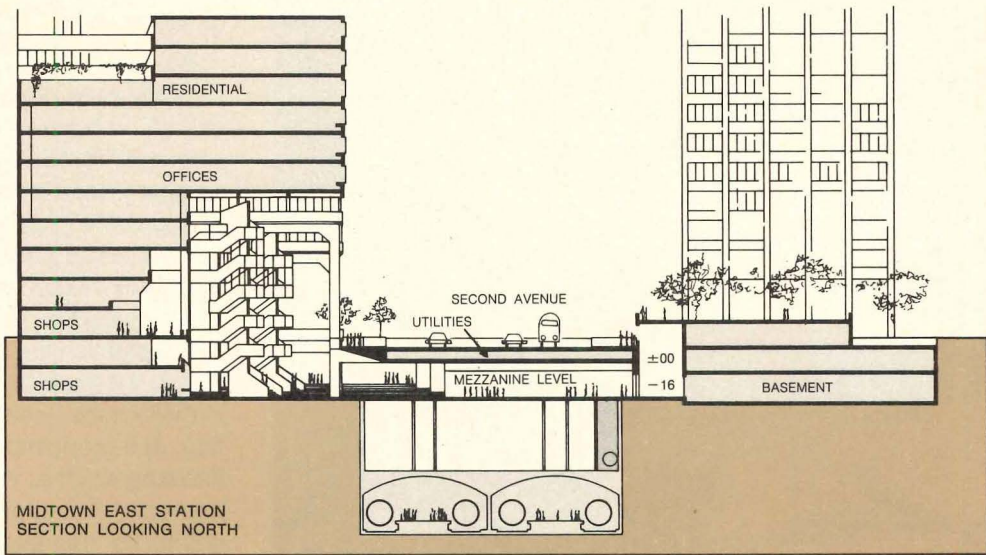
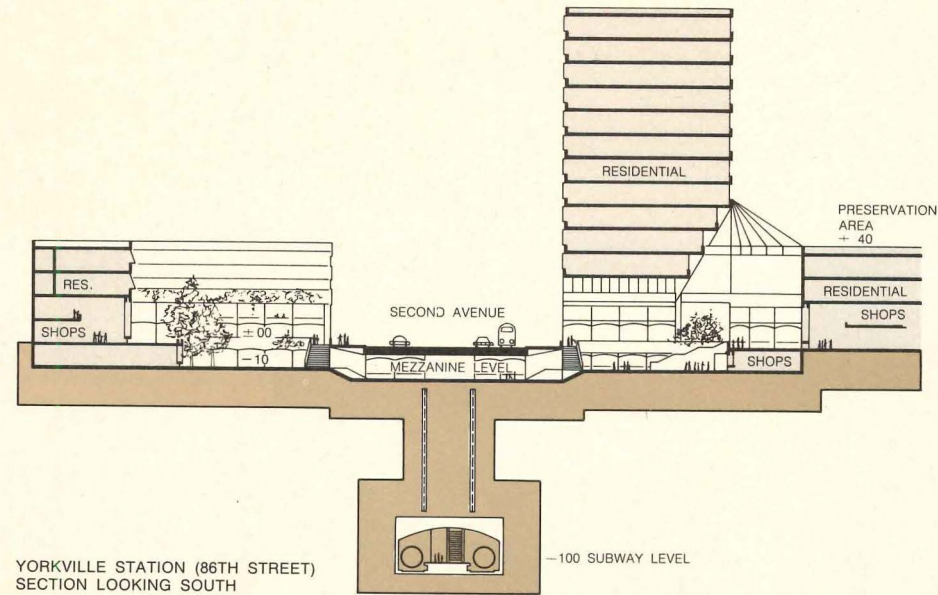
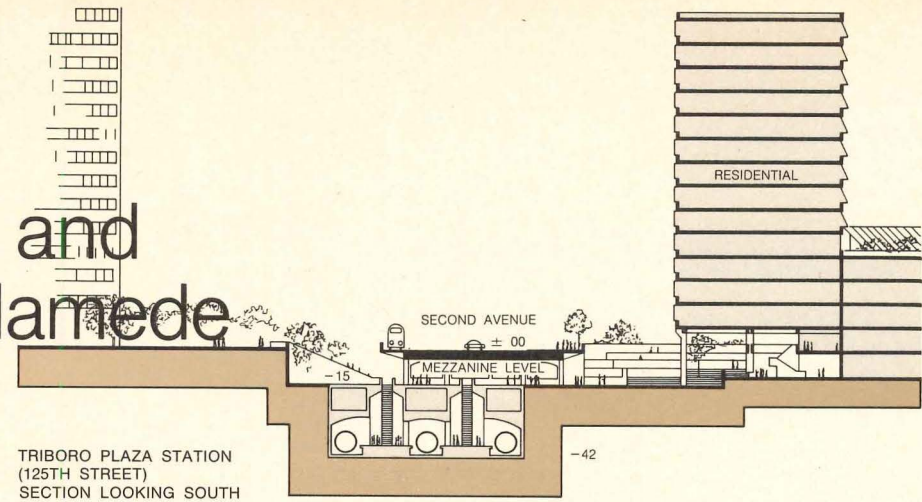
Site: 14 St. to 125 St. along Second Ave.

Solution: The study team devised a concept of underground zoning for the area between the public improvement and the public sidewalk in order to assure the proper pedestrian spaces. An amendment to the City Zoning Resolution calling for the creation of a Special Transit Land Use District along Second Ave. requires any developer of new buildings along this route to include provision of transit easements such as off-the-sidewalk entrances, arcades, and below ground mezzanines lined with shops. Existing buildings would not be affected. The zoning controls were adopted by the City in November. Schematic design concepts for three significant joint developments in three very different station areas were selected to illustrate how private construction could be coordinated with subway amenities provisions. One, Triboro Plaza (125th St.), is in an urban renewal ghetto area; the second, Yorkville (86th St.), is a middle-class neighborhood; and the third, East Midtown (59th St.), is a high-density commercial district.

Jury Comments:

Whitley: In all three cases they were working with the community, and trying to minimize the conflicts between the community and imminent development resulting from the subway stations. They are trying to knit together the interests of the neighborhood and conserve the social fabric and scale, and at the same time recognize the opportunity for development. This thorough study takes into account the need for open space above and below grade, and implements that objective through underground zoning.

Copeland: There has to be a very complex interaction between the subway station design and private development; success will depend on agency cooperation. One qualification about the



three model design schemes: the planners haven't conveyed enough of the basic intentions of the concept in a form made clear to those who will follow with detailed design development. They haven't anticipated a phasing over a long period of time, and spelled out the connection between the goals of the community, the city, and the physical urban design concept. In some cases, the schemes are too specific to really allow for inevitable change that will occur.

Credits

Project Team: Raquel Ramati, project director

and principal urban designer; Ada Karmi-Melamede chief project architect; Ed Grinberg, Philip Hesslein, Carl Larsen, Patrick Ping-Tze Too, Gerard Vasisko, Ernest Wright, design team.

Administration: Laurie Beckelman, Elizabeth Errico.

Modlemakers: Michael Gambardella, Tomi Harmon and Peter Valentini.

Photographers: Gil Amiaga, Louis Checkman.

Sponsors: National Endowment for the Arts, Madison Equities, Inc.

Clients: Municipal Art Society of New York, Department of City planning, New York.

Parables of wise and foolish children



Brill

Marcus

Architectural applied research is a "very, very young field," declares research juror Clare Cooper Marcus. That this has not prevented individual projects from achieving distinction can be seen in the jury deliberations. Marcus and fellow juror Michael Brill were sufficiently impressed by five entries to award them the full range of accolades.

"The award-winning projects are all useful *now* to designers," says Brill. "The field of man/environment relations is producing a fair amount of such 'off-the-shelf' products for use in every phase of the design process. The problem still remains of 'marketing' these products to a reticent profession, generally content to do without rather than expend the energy of adapting and expanding its practices and procedures. Some firms use research in their practice."

But good research costs money. "While the benefits can be substantial, so can the costs," he admits. "A good research problem would be to find a way to increase the benefits and/or reduce the costs. Or, to find a large enough base of research users to share the load. Most or all of the award-winning projects were supported by public monies, and for public purposes. Where will the money come from to support research which could be termed 'basic' or for private purposes?"

To establish the criteria for their jury decisions, Marcus and Brill decided to clearly state their definition of research. In their words, research is 1) a carefully formulated question, 2) a proposed way of getting an answer, 3) a way of knowing whether that answer is any good or not, 4) an answer, and 5) a suggestion for how to use the answer. It should be 'transparent' in the sense that an outsider should know what happened at every point. The jurors believe that the three first awards exemplify these qualities.

Hide and seek

What constitutes a good research "answer"? Marcus and Brill believe it can take many forms. It could be a building *design*, or a *process* for designing, or a *manual* to help designers design, or an *evaluation* of a designed environment, or a set of *policies* for managing environment, or a better way of *building*, or a better way of using environments, or a more equitable *decision-making* process, or even a better way of *doing research*.

"There weren't entries reflecting all these categories and there should be," Brill says. "A lot of useful and relevant research is being done by people who don't see it as man/environment research. We'd like to encourage research people to view their work as potentially applicable to the design process. And maybe P/A should find a way to 'market' this notion."

The "notion" is changing to a necessity. For as Brill points out, "Clients are becoming more sophisticated. And the U.S. is getting poor, so there will be incentives—better opportunities for research." To which Marcus responds that the English have already learned to appreciate such studies. "England has been poor for some time," she says. "So it has had to make sure every penny is spent well."

One of the more compelling reasons designers need research is to make intelligent tradeoffs. If we are really at the dawn of an age of scarcity, the designer's skill in making these decisions will be vital to the success of his project. A good research report, in the opinion of the jury, develops a hypothesis, describes all necessary background and information, and makes conclusions and recommendations which make sense to the designer. Speaking of *Planning for Cardiac Care*, a First Award winner, Brill says, "If you come up against a specific situation like this, you really need good information. A set of guidelines allows you to have a kind of dialogue. Whereas with a program of insufficient data, there's nothing you can do. When you make tradeoffs in design, you want to know what is worth plenty and what is not, and where you should concentrate your efforts."

Pin the tail

Problems currently besetting research may disappear with age. Researchers in this small field are pursuing many directions of inquiry, producing an approximate picture of chaos. *Who* shall conduct research is not always clear. Certainly academics are as capable as practicing architects (though the categories overlap, of course). Even academe has its doubts. Marcus indicates that, "In the universities there are all kinds of peer and status problems about the kind of research you do. If you're in pragmatic, applied research in an academic sociology department, you are

looked down upon by your peers. You are not promoted, not for writing the practical cookbook guidelines of research which architects need."

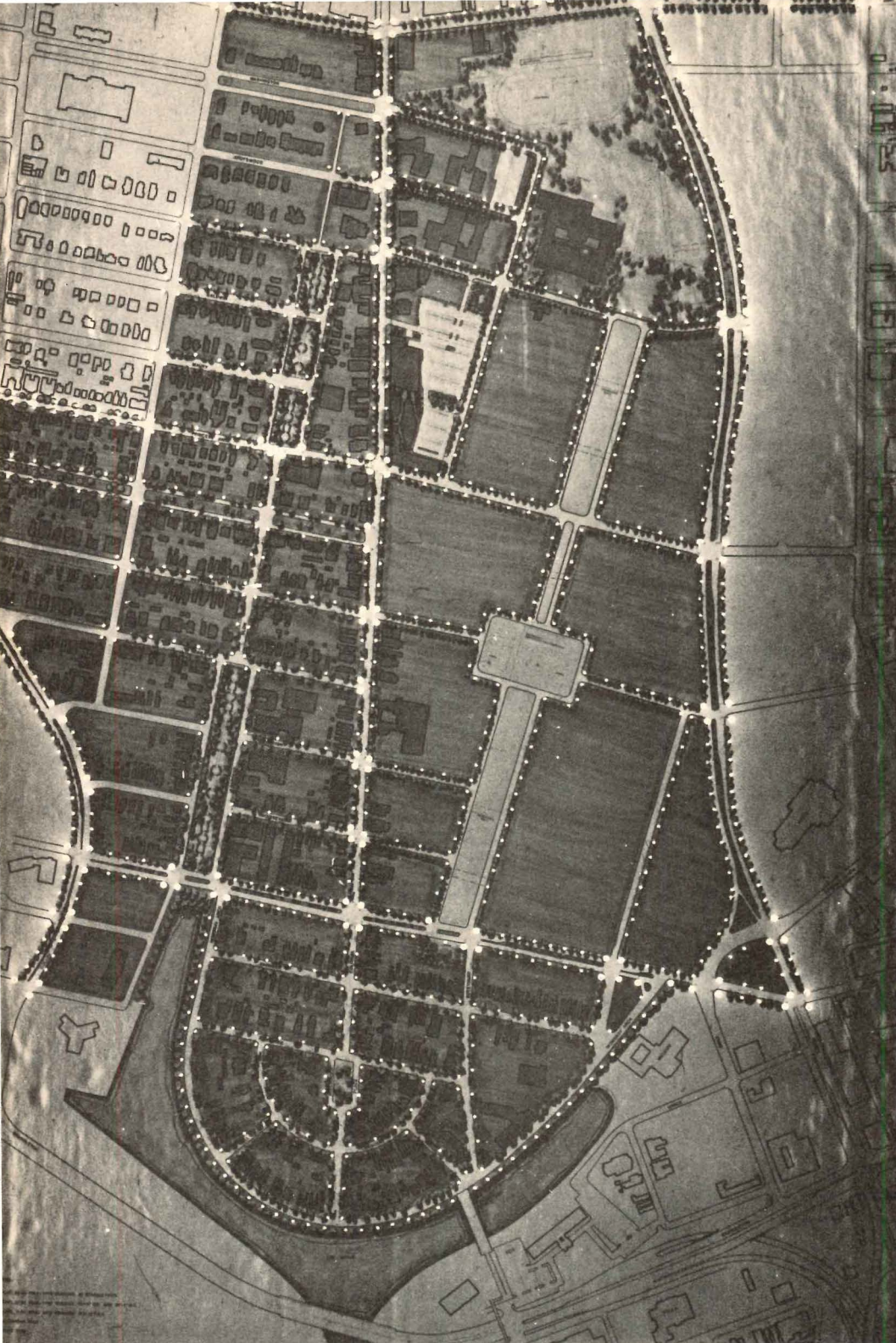
Other lingering difficulties include a tendency towards verbose rhetoric, meaningless compilations of statistics, and heavy residues of academic cliches—especially a preponderance of matrix displays. "Some projects promise plenty and just don't deliver," Brill concludes. Referring to one entry, he adds, "I'd like to train the young architects who did this. They don't know what the hell they're doing. They start with simple, dumb number counts. What they measure isn't related to what they want to find out."

Examining another report, Marcus finds good data hopelessly entangled in a graph. "Why did it reduce to this?" she asks. "Why not *read* about the findings? People probably won't read many graphs."

Brill sympathizes. "All these useless charts: Sons of Ekistics. They're nothing but lists. My grandmother knew it. There's no way to weight them."

Nevertheless, the jurors found research projects worthy of praise. What encouraged them about the winning entries was their successful transition from social programs to physical design. It is not an easy passage to negotiate, as Marcus describes in reference to one promising report. "It started off with a very laudable and excellent behavioral analysis of an existing facility. There were questionnaires, observation techniques, medical records, a lot of very interesting and sensitive stuff. Then they turned this into a design. The sensitivity fell away, and it seemed that what came out were some architectural cliches. Too bad it didn't follow through."

As for the winning entries, they are amalgams of original studies and searches through the literature. The three First Awards offer largely original research to designers: an evaluation of a newly installed lighting system in Norfolk, Va., a planning manual for cardiac care, and a computer oriented planning process for designing ambulatory care services. The one Award is for a design manual for elderly housing, a "cookbook" of literature assembled with diagrams of good and bad solutions as suggestions to the architect. The one Citation is for an encyclopedic evaluation of SEF, a Canadian building system.



First award

Gary Hack and William Lam Associates

Improving City Streets for Use at Night. The Norfolk Experiment. A Cambridge, Mass. lighting consultant appraises innovative street lighting in an inner city district.

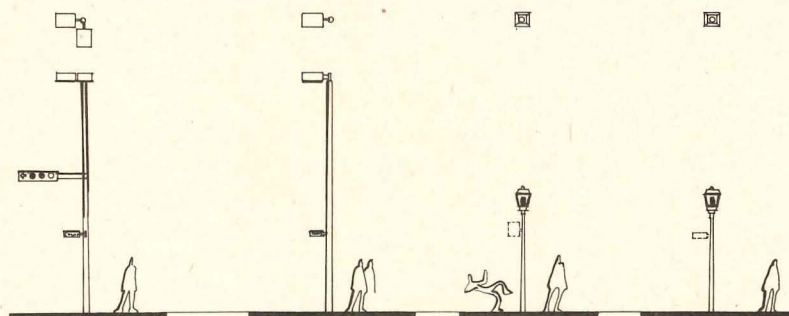
How do you like your city at night? Recent political campaigns exploit the enormous nocturnal chasm many Americans feel lies outside their homes. Oft quoted, and in the opinion of this report, highly misleading, crime statistics of nighttime in the city reinforce a national bias towards designing city streets primarily as automotive routes, using night lighting standards that favor motorists. This imbalance is inherently dangerous for sidewalk and street.

William Lam Associates designed and evaluated an innovative lighting system for Ghent, an inner city residential neighborhood of Norfolk, Va. The charming district of Dutch style row-houses, Tudor manors, and Colonial mansions is rehabilitating itself. It was given a lighting system recognizing a hierarchy of traffic-bearing streets, lower level even light distribution on pedestrian paths, brighter intersections, and lighting of a lower color temperature than high intensity lamps like mercury vapor.

The evaluation considers Ghent lighting performance with implications for general lighting standards; detailed survey results on general attitudes, standards, and pedestrian and motorist reactions; technical notes; interpretation.

Experiments were conducted from 1973 to 1974. Each of 125 randomly selected residents walked or drove through at least 6 of 19 test environments covering a wide range of lighting alternatives. Subjects spent an evening completing a questionnaire about typical street use at night, walking (alone or accompanied) or driving through a specific route, and completing another questionnaire. Interviews followed.

Findings indicate that while lighting alone will not radically alter the image of areas considered unsafe, a low intensity system promoting evenness of lighting designed for the pedestrian can



FOOTCANDLES

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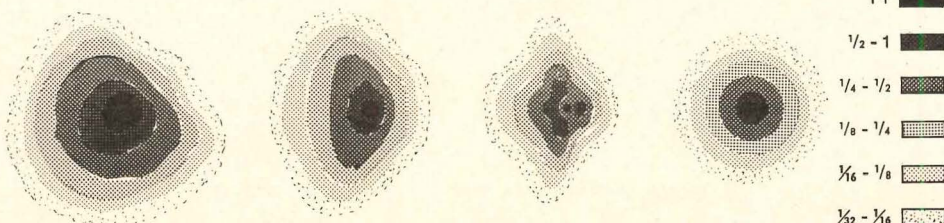
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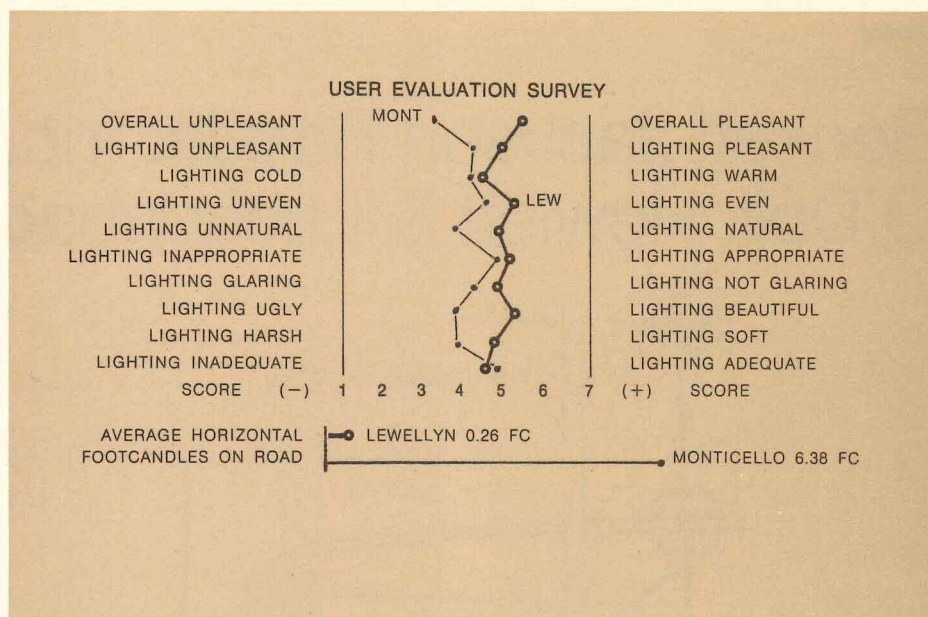
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1/8 - 1/4

1/6 - 1/8

1/32 - 1/6





also be adequate for the motorist. A healthy city street environment depends on *how much* light is available and *where* it is distributed. Ghent residents seem to appreciate the change.

Jury comments

Marcus: Here is what can usefully be accomplished when a small proportion of the construction budget is devoted to a systematic and intelligent evaluation of physical modifications in the environment. The designer did not rely on his own, albeit experienced, judgment as to whether his design upgraded and improved security in the test neighborhoods. He quite rightly went to the user of those streets. The modest, straightforward procedures and research instruments could easily serve as a prototype for other similar efforts. Their presentation proceeded logically: from problem statements and design modifications to testing the efficacy of those modifications and proposing guidelines for future use in comparable situations.

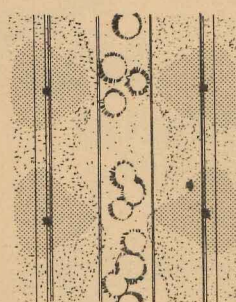
We give this study a First Award not for its complexity, profound implications, or glossy presentation, but because it beautifully exemplifies the achievements of a modest budget and intelligent use of simple research tools. We hope other designers seeing this will realize they cannot always use the excuses of "lack of funds," "limited time," and "insufficient expertise" to avoid doing the evaluation which should be the end-point of every design task—and starting point of the next.

Credits

Lighting and street furnishings consultant: William Lam Associates, Cambridge, Mass. William M.C. Lam, president, Marietta S. Millet, project coordinator.

Evaluation consultant: Gary Hack, asst. prof. of urban design, MIT, Karen Ouzts, Allen Gerstenberger, Paul Graziano, research associates.

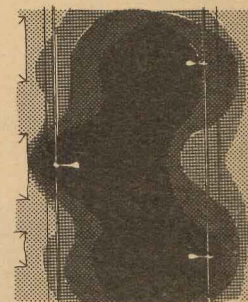
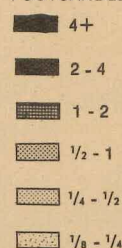
Client: Norfolk Redevelopment & Housing Authority, Norfolk, Va. David Rice, director of planning & program development.



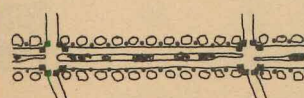
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MONTICELLO



DIVIDED ARTERIAL



COLLECTOR



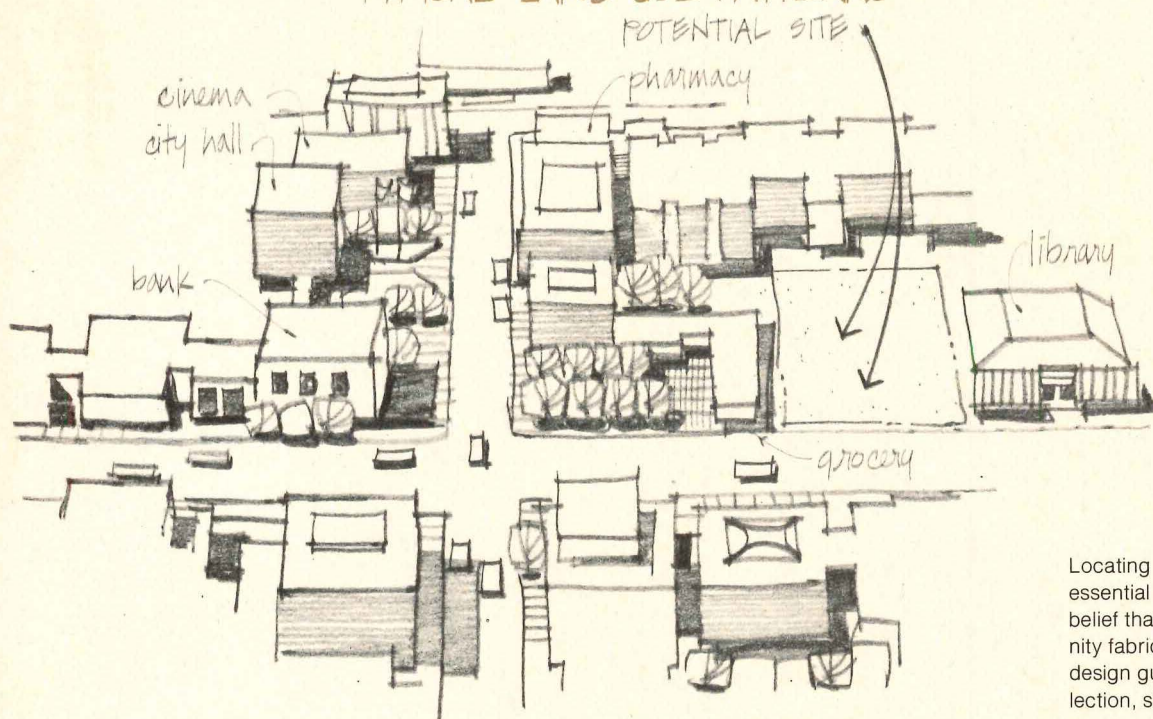
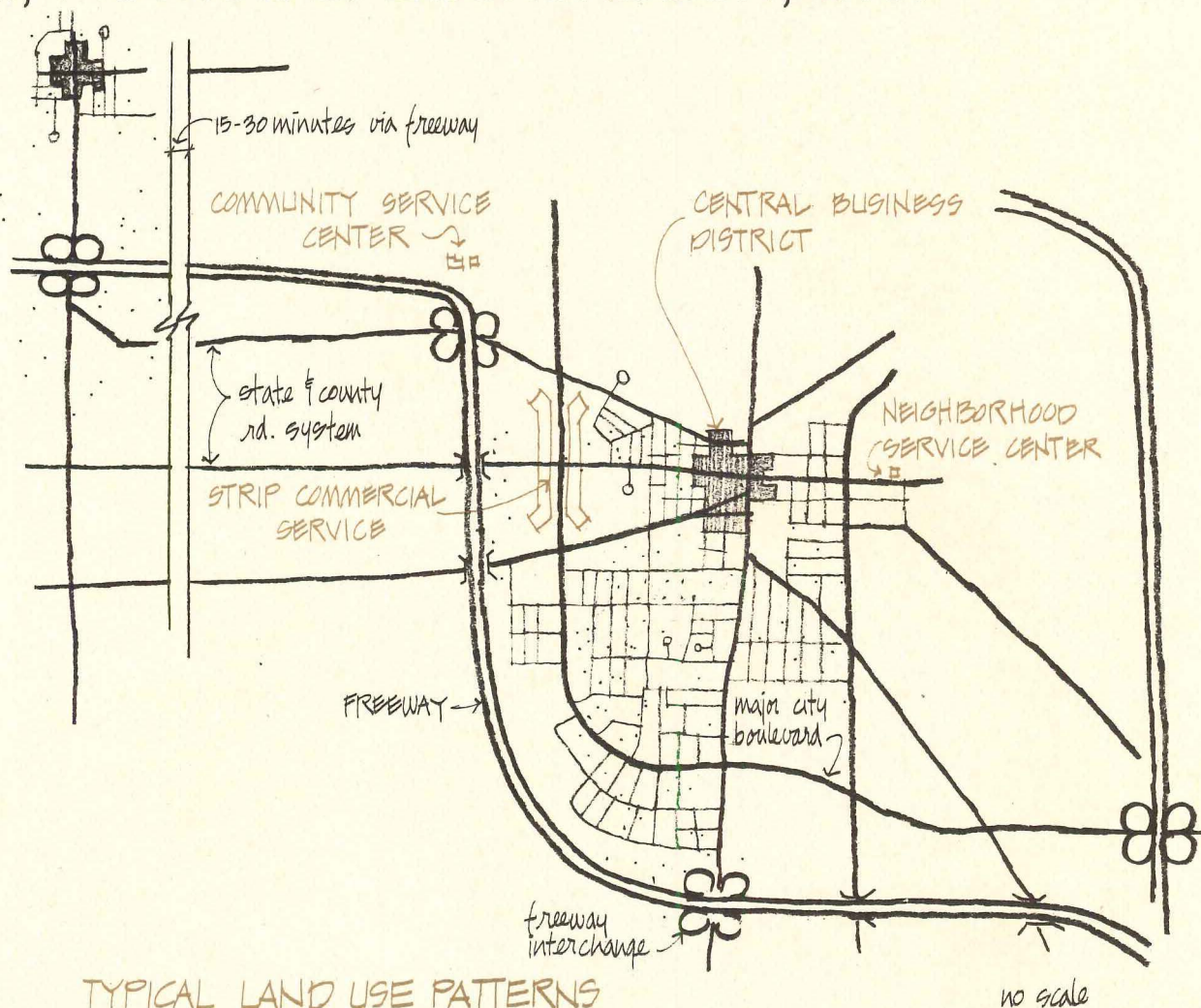
ARTERIAL



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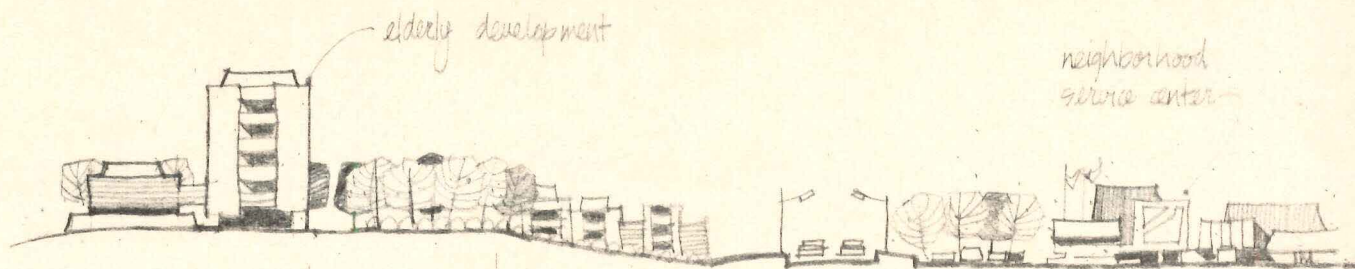
- PAIRED FULL CUT-OFF ROADWAY FIXTURE ON 25' POLE
- COLONIAL FIXTURE ON 10' POLE

Beckett Jackson Raeder Inc. and O'Dell, Hewlett & Luckenbach, Inc.



ONE SCALE OF URBAN NEIGHBORHOOD

Locating site for elderly housing is considered essential for project success by authors. Their belief that elderly be integrated into community fabric is translated into vivid graphic design guidelines. Shown: studies for site selection, site grading, landscaping, lot sizes.



Housing for the Elderly Development Process. Two Michigan architecture firms have assembled design guidelines for producing housing for the elderly.

Something dreadful happens to an American as he slides, often helplessly, into the demographic ranks of the elderly. There are no special agonies in store. Rather, he feels a benign neglect as society turns away from this demoted taxpayer and consumer.

This report begins with a positive assumption: the basic human needs of the elderly are identical to those of any other age group. The study is generated by the interaction of these needs, the loss of faculties that can accompany aging, and the designed housing environment.

It is organized as a design manual to which designers can add new information later. Its six sections print easy-to-follow and thoughtfully illustrated design guidelines which acknowledge the physical and perceptual needs of elderly residents. Included are: a background to the client's approach to elderly housing development, criteria and process of defining program magnitude and scope, criteria and process in site selection which places the elderly in a community context, essentials of design formulation and evaluation, performance standards and technical specifications, and a bibliography.

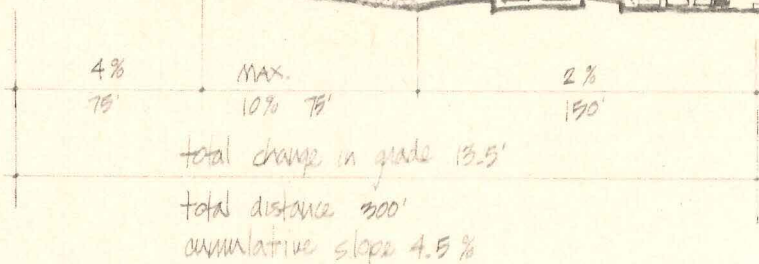
How or why the manual's conclusions are stated in its peremptory tone is not revealed (in fact, there was much original research). There is nonetheless a very humane tenor to its design parameters which adds color to the entire work. We read, "The elderly should be a part of the community. They should not be located on physically or socially isolated parcels of land."

Typical of the manual's diligence is a passage on food preparation included in the design section. A bubble diagram sets forth the basic issues that stem from this activity. An introductory paragraph describes the inherent difficulties of food preparation by the elderly which require special physical design modifications. Then follow design recommendations for accessibility (e.g., locate the area to facilitate transporting bundles from the entry), orientation (on an outside wall with view), and equipment (arranged for efficiency). Spatial characteristics are considered, with recommendations for lighting, color, and ventilation among many design features.

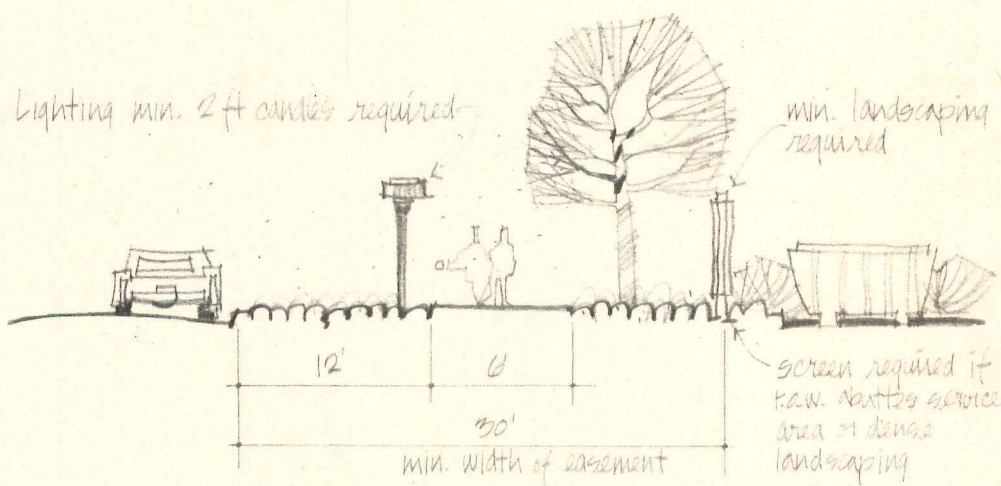
What this points out is that we can anticipate the changes that come with aging in our design. Yes, special consideration must be taken. As was stated in the 1971 White House Conference on Aging, the elderly deserve nothing less.

Jury comments

Marcus: It is fashionable in environment and behavior research to look down on "cookbooks" and "how-to-do-it" manuals. Meanwhile, some architects are crying out for usable compendiums of research findings having obvious design



EXAMPLE - CUMULATIVE SLOPE



DESIRABLE OFF-SITE WALKWAY CHARACTERISTICS

implications. As the authors state, this study is not "the ultimate, or, for that matter, the only process towards creating successful design of the environment for the elderly; but... it is a good beginning."

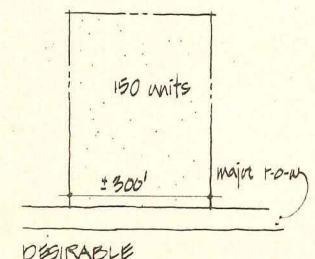
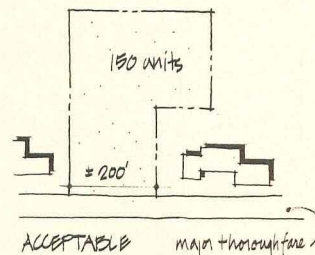
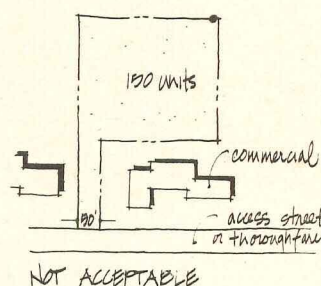
It is a very good beginning. Too often, design manuals of this sort are heavy on the back-up research but weak on actual guidelines. Or they provide excellent checklists of guidelines but relatively little research or literature references to back them up. This particular study is a good amalgam. Most important, if guidelines are going to be used by architects, they should include clear diagrams and sketches of possible design solutions, "not to compromise, but to stimulate the designer's imagination," as this does.

We hope this study will be used by designers, and perhaps inspire other researchers to develop even more comprehensive manuals from this "good beginning."

Credits

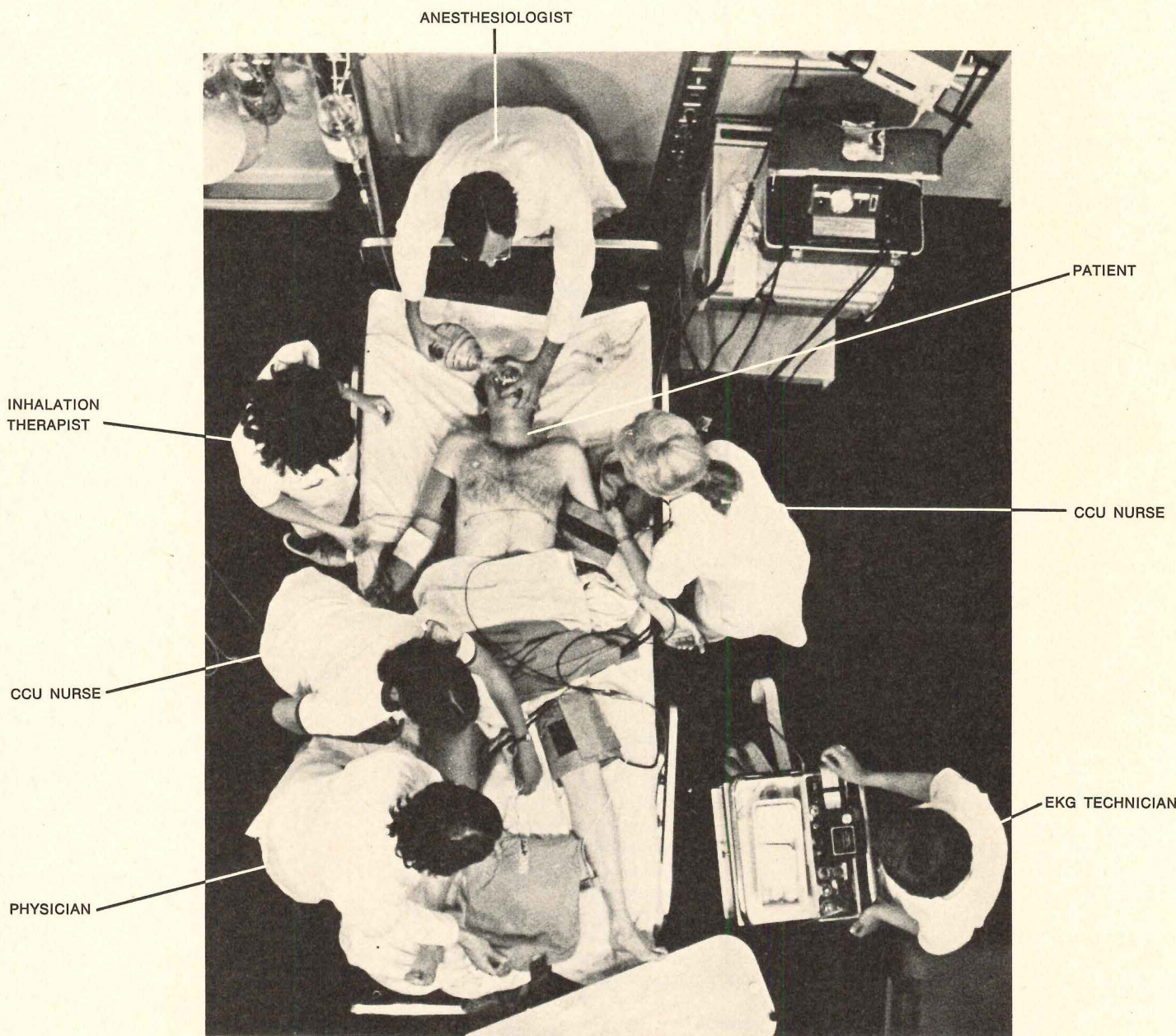
Architects: Beckett Jackson Reader Inc., William P. Jackson, pres., Howard L. Deardorff, principal. O'Dell, Hewlett & Luckenbach, Inc., Carl Luckenbach, pres., Charles Johnston, vice pres. and principal in charge.

Client: Michigan State Housing Development Authority, Isaac Green, exec. deputy director.



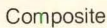
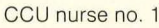
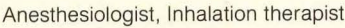
First award

Colin W. Clipson and Joseph J. Wehrer



Simulated configuration of a cardiac emergency in typical CCU mock-up.

"Mary Ashley is a registered nurse, 25 years old, who has worked in the coronary care unit for the past three years," begins a simple and humane narrative which is the first of three user profiles. This study recognizes that Mary Ash-

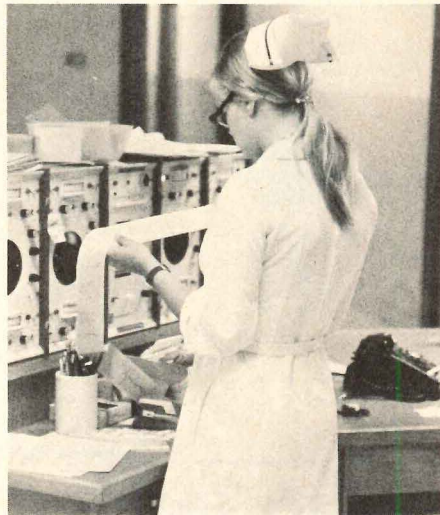


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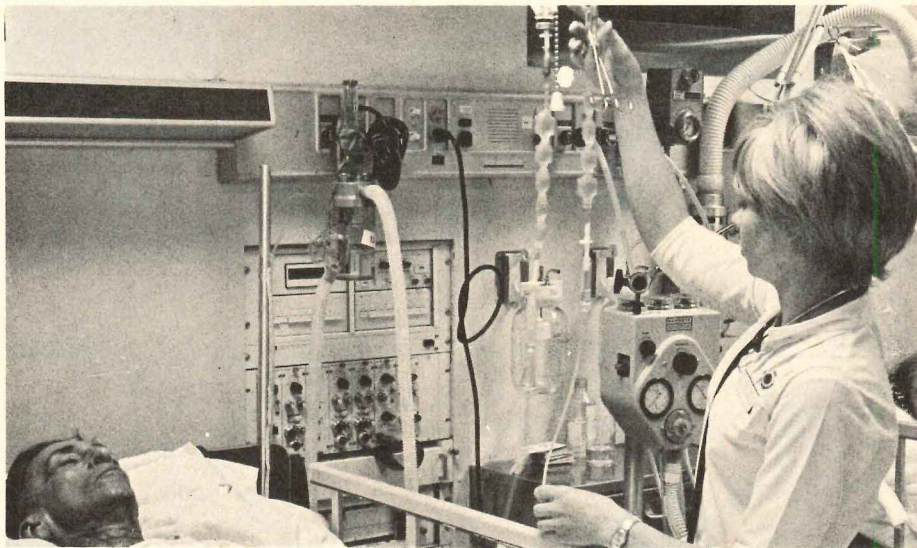
Cardiac care



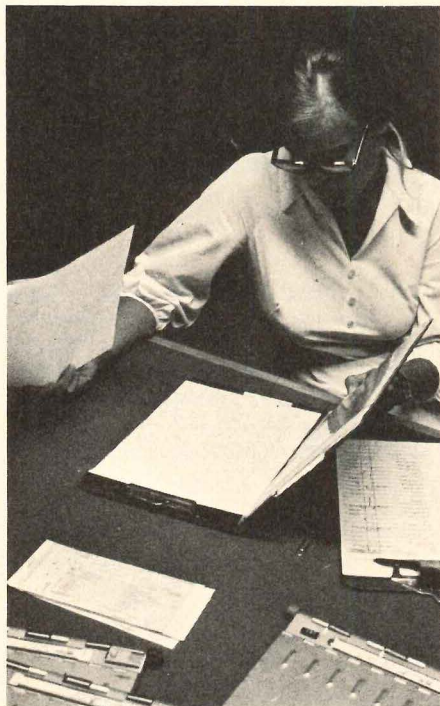
Mary Ashley, R.N. reviews patient files . . .



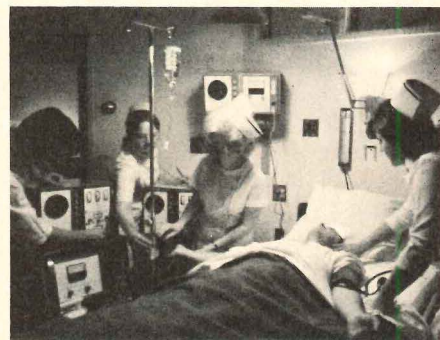
Scans battery of green scopes . . .



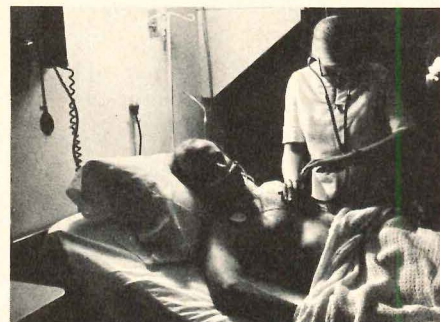
Checks patient's monitor leads, IV tubes . . .



Prepares charts for patients . . .



Receives new and frightened patient . . .



Resolves false emergency. A "typical" day.

ley's chores are part of an unanswered medical question: how to eliminate coronary disease. In the long interim ahead, we must intelligently plan CCUs. Hence this work is written.

Jury comments

Brill: This is really special. A perfect model of information for designers. A design manual for a complex and important activity. And it tells you *why* it says what it says, so the designer can make intelligent trade-offs. It's so complete—history, users' needs and activities, design guidelines—everything. It is beautifully organized and presented.

They develop activity models of the treatment process and models for generating information to use in that process, and models to design facilities and to evaluate them. And then they use these models to solve the problem. It makes everything "transparent" and accessible to users of the manuals and, importantly, to other researchers, for whom it can serve as a model. It probably cost a lot of money and it's worth it.

Credits

Architects: Colin W. Clipson, design engineering and ergonomics; Joseph J. Wehrer.

Research team: Ann Clipson, Uriel Cohen, Peter Kuttner, Greg Parston, Rudi Welter.

Consultants: Dr. Ernest Reynolds, Dr. Park Willis, Dr. Irving Schatz, Ms. Luanne Belfy, R.N.

Client: Michigan Comprehensive Coronary Care Project sponsored by W.H. Kellogg Foundation and American Heart Association.

ACSM-2 Project Team

Ambulatory Care Services Model, Phase 2. Researchers at State University of New York at Buffalo have created a computer model of AC services in the Lakes Area.

Americans may be paying more for falling ill and enjoying it less. There is growing political support for new programs of health care delivery by semi-private and public institutions to subsidize rising medical expenses. This is quite visible in ambulatory care services, the short-term treatments administered to patients whose conditions permit daily visits to the health facility.

The client sought a comprehensive conceptual picture of ambulatory care delivery in its jurisdictional area when it commissioned the Ambulatory Care Services Model (ACSM). ACSM-1 had been shelved for its prohibitive cost and complexity, inability to predict, and inflexibility and detail of data.

ACSM-2 was developed to repair these deficiencies. The outcome is a three-volume report consisting of a development report of theory and rationale in ambulatory care and project organization, a step-by-step user manual, and a model validation report which applied ACSM-2 to an actual operating AC unit.

ACSM-2 contains three "general modules." These are Problem Identification, Problem Examination, and Decision and Implementation. They are characterized as an "integrated set of tools with techniques for the collection of various amounts of data at various times within the various interfaces of the ambulatory care setting."

The Problem Identification module holds three data collections designed to isolate general problem areas with simple, inexpensive means either continuously applied or easily repeatable. Role Examination measures staff policy changes over time using a computer model, REX, to record and analyze staff responses to questionnaires about real and perceived work roles. The Patient Questionnaire elicits Qualitative attitudinal responses and demographic information for computer sorting, SPSS. And the Encounter Form a minimal data base on each patient which could serve the entire geographic region.

Actual behavioral phenomena are recorded with the Observation Tool and analyzed by computer, SLAM, as part of Problem Examination. The procedure is protracted and expensive.

Decision and Implementation are manifested in Space Planning and/or Administrative Change. Reserving the latter for institutional prerogative, ACSM-2 addresses itself to the former. Spaces in a facility are ranked by their proximity to other spaces. Problem examination observation data is translated into compatible language with Space Planning by computer, TRIPS.

A computerized space planning program, SPACES, prints out preliminary floor plans. Wary architects may note these are still first attempts that need architects to become architecture.

Jury comments

Brill: An excellent example of a multi-tool, multi-method approach to a complex problem. Although a series of computer programs are used, it is a very *humane* tool. It uses behavioral data, generated through questionnaires and observation from patients and staff, and then uses computers to manipulate the data. It cares about how people *feel* about their medical treatment. It asks administrators to examine and adjust policies as a result of data collection and analysis. It's a good process for design of space *and* policy. Its cookbook form is useful for designers.

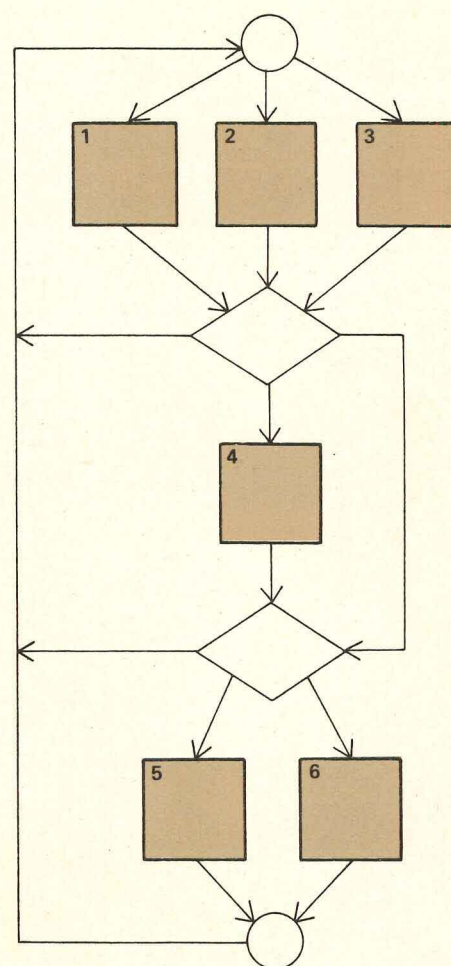
The researchers themselves point to some methodological weaknesses. This is honest, laudable, and appropriately defensive: the next research group can start work on the weak points rather than refining the strong ones. The only weakness otherwise is a forbidding look to the thing. You don't want to embrace and love it.

Credits

ACSM-2 Project Team: School of Architecture & Environmental Design, Gunter Schmitz, principal investigator, Assoc. Prof., Scott Danford, project director, Asst. Prof., Lawrence Zimmerman, project coordinator, Beverly Albert, Peter Armstrong, Howard Berger, Ronald Bronstein, Heidi Carman, Louis Clark, Sandra Coleman, James Dyett, Barry Frazier, Gerald Glose, Kathleen Curtin-Glose, Joseph Lubiner, Aileen Reis, Linda Titolo, Franz Veit (Cannon Partnership, Grand Island, N.Y.).

Consultants: Dr. Harry A. Sultz, Dr. Petter T. Ittig, Harry Pinarski, Harry Delano, Susan Nelson, Robert Fraum, Dr. R. Dickman, Charles Woepel, Daniel Kaplan, Ann Crowley.

Client: Lakes Area Regional Medical Program, Buffalo, N.Y., Dr. John R.F. Ingall, exec. dir.



Problem Identification

- 1 Role Examination
- 2 Patient Questionnaire
- 3 Encounter Form

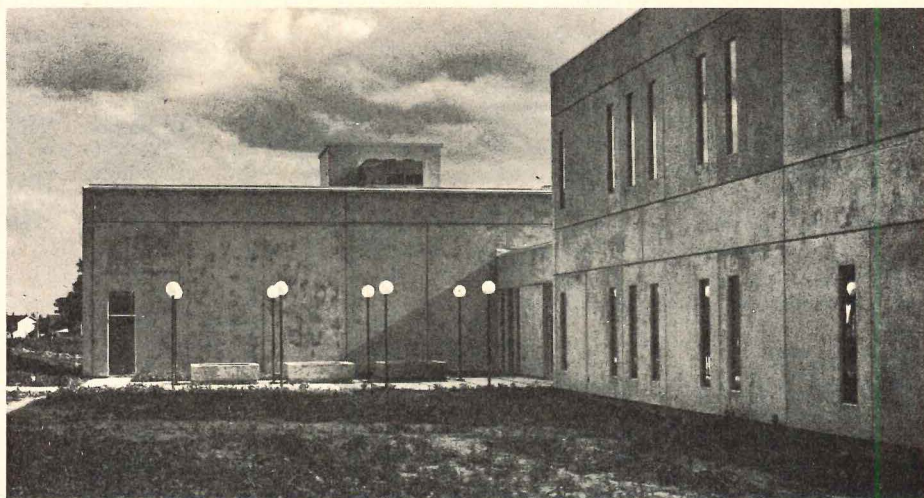
Problem Examination

- 4 Observation

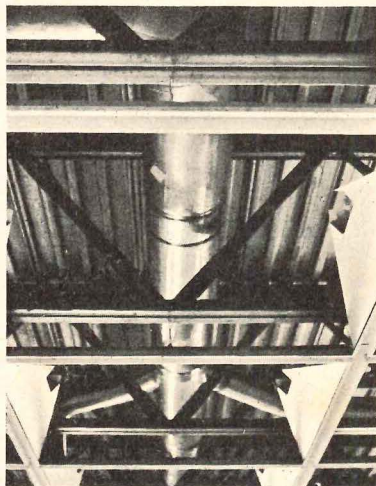
Decision & Implementation

- 5 Space Planning
- 6 Administration

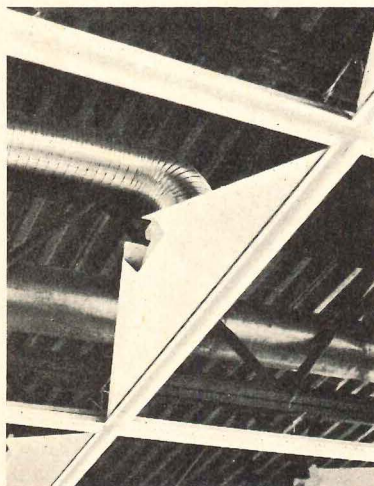
Leman Architects/Planners



SEF in construction: open web girders and purlins.

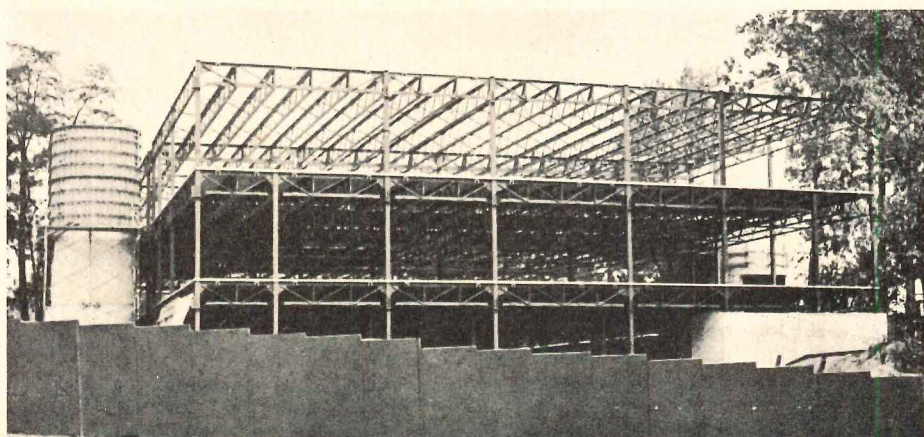


Detail: flexible duct.



Detail: lighting coffer / air boot.

SEF school has basic precast spandrels, wall infill panels.



Evaluation of SEF Study of Systems Building. A Toronto architect pronounces judgment on an important building system in Canada.

This is the dissection of a giant. Study of Educational Facilities (SEF), the largest undertaking in building systems in Canada, was conceived in 1966 to supply systems schools for metropolitan Toronto. The author responds to it passionately, exhaustively, at times erratically.

There were six objectives in the evaluation. Besides a professional appraisal of SEF's building system, there were probes of SEF as *procuring process*, as performance specifications *product*, as *impact* on the construction industry, as *economic* entity, and as evidence of *potential* for further systems development in Canada.

After an enormous sifting of literature and interviews with countless SEF participants comes a massive indictment. The report contends that SEF failed to grasp the systems concept, exhorting industry to tool up a *hardware* system instead of optimizing industrial potential towards a more open-ended *process* oriented system. A special front end management/administration structure was never evolved in the rush for nuts and bolts. Thus construction has been of high quality without meeting original performance specs or dramatically improving efficiency.

For the design professional, the most serious charge may be that SEF denigrated him to paper shuffler of purchase orders. Design work was the province of factory designers and the SEF office. Still, the author remains optimistic about systems building. He cites successes elsewhere. His insistent message for SEF: the concept needs more thought.

Jury comments

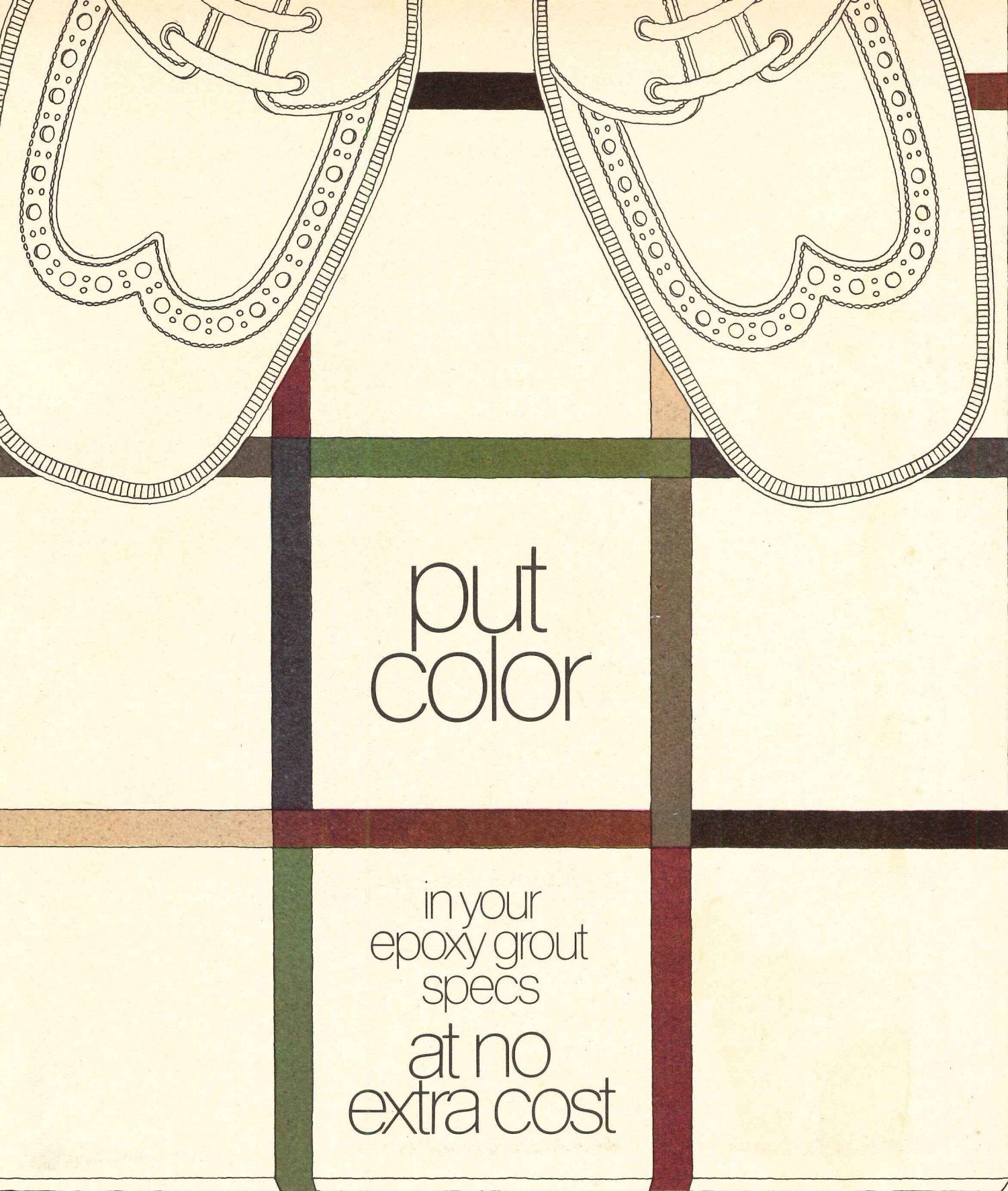
Brill: This was probably the most ambitious and difficult of all submissions—to evaluate an entire program of systems building *and* be a model for other evaluations. It does the first job, but not the second. The job is tough—there's not much precedent for either.

The author seems to explore every method and technique of evaluation in the world, and then uses half of them. Some work. The researchers know this. They talk about the search for useful data and methods and then describe what they "settle for." It's hard to say whether the conclusions are reliable or valid because it's not easy to check the tools that are used. This is one of a tiny number of pioneer works in an emerging field of program/product evaluation and deserves recognition for its inventiveness, scope, and energy.

Credits

Architect: Leman Architects/Planners, Alexander B. Leman, MRAIC, Mrs. Deborah L. Schabracq, Peter L.E. Goering.

Statistical consultant: Janace A. Pierce.



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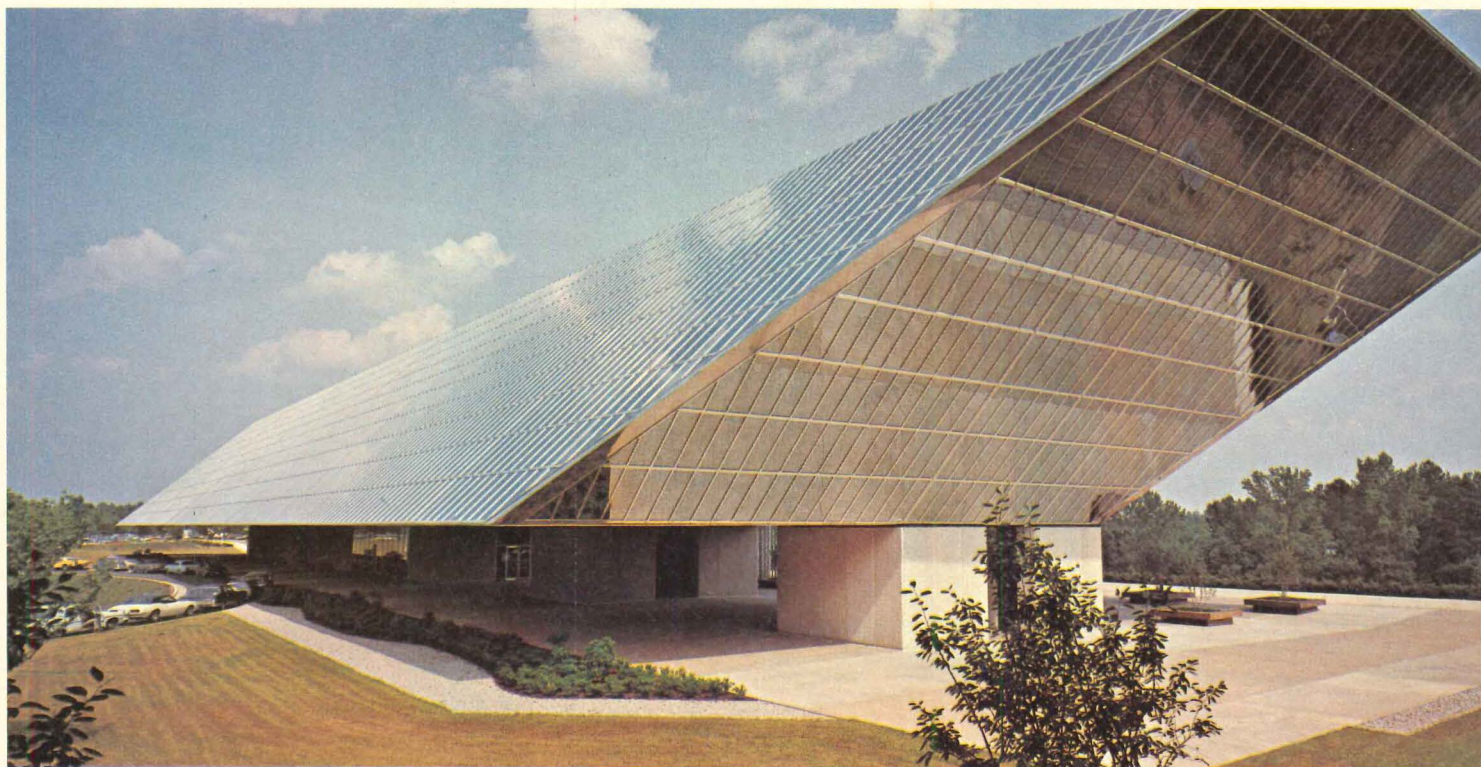
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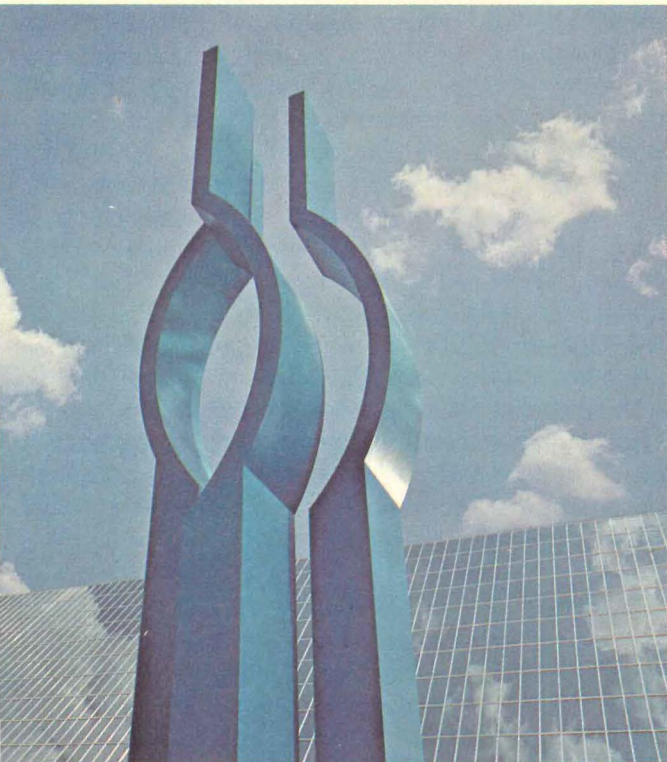
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Underestimating building costs

Bernard Tomson and Norman Coplan

Estimating construction costs, ever risky, is even more so during current inflationary period as architects face possible malpractice claims or loss of fees.

Estimating building costs is one of the more risky functions of an architect's professional practice, and in a period of continuing and progressive inflation, the architect finds himself in an even more unenviable position in this respect. During such a period, the underestimation of costs becomes more likely and, consequently, there is a greater possibility that the architect's right to a fee will be challenged, or that damage claims for malpractice will be asserted. Since prevailing errors and omissions insurance does not generally cover claims for underestimation of costs, the architect is very vulnerable.

This problem was illustrated by a determination of the Supreme Court of Minnesota which considered an architect's liability for underestimating costs and his right to a fee (*D.W. Kostohryz v. McGuire*, 212 N.W. 2d 850). The plaintiff in this case had entered into a standard AIA contract with an architect for the design of a house. Under the contract, the architect was required to submit a "statement of probable construction costs" during each of the design stages. The contract expressly provided, in respect to such statements of probable construction costs:

"(Such statements) represent the architect's best judgment . . . (but) it is recognized, however, that neither the architect nor the owner has any control over the costs of labor, materials or equipment, over the contractors' methods of determining bid prices, or over competitive bidding or market conditions. Accordingly, the architect cannot and does not guarantee that bids will not vary from any statement of probable construction costs or other cost estimates prepared by him."

Despite this disclaimer, plaintiff instituted suit against the architect for damages on the ground that his underestimation of costs constituted an act of malpractice. The architect's cost estimate of the construction of such house was \$39,973. At the time of the suit, the construction of the house had not been completed but cost to that date was \$63,863 and testimony at the trial established that the cost to complete the residence would be at least an additional

\$19,000. It was also established at the trial that the market value of the house in its partially completed state was approximately \$55,000.

The architect, on the trial of the action, established that the plaintiff-owner had acted as his own general contractor and that construction was carried out over a four-year period in a piecemeal fashion. It was the defendant's contention that the difference in actual costs, as against the estimate, resulted from the owner's decision to act as his own contractor and to proceed with construction in stages over a period of years. Further, the defendant contended that there was no expert testimony at the trial of the action supporting the plaintiff's claim that the architect had failed to exercise the degree of skill and care ordinarily possessed and exercised by an architect in the performance of his professional duties, and that, therefore, there could be no finding by the jury that he had negligently performed. Lastly, the defendant argued that since, by the express terms of the architect's contract, he did not guarantee his estimates, liability could not be based solely upon the fact that they were substantially lower than the actual costs.

The Supreme Court of Minnesota, in dealing with these contentions, first concluded that an architect or engineer may be held liable for underestimating costs even if the contract expressly disclaims any guarantee of such estimate. In this connection, the Minnesota Court quoted the Supreme Court of Nebraska, which had stated in an earlier case the following:

"We prefer to hold that an architect or engineer may breach his contract for architectural services by underestimating the construction costs of a proposed structure. The rule to be applied is that the cost of construction must reasonably approach that stated in the estimate unless the owner orders changes which increase the cost of construction. It is ordinarily for a jury to say whether the actual cost is within a reasonable range of the estimated cost unless, as here, the excess is so great that the court can deal with it as a matter of law."

In response to the contention of the architect that there had been no expert testimony supporting a conclusion that he had been guilty of malpractice, the Court ruled that the underestimation was of sufficient magnitude to establish, without the aid of an expert's testimony, a breach of the architect's contractual duty. However, the Court also ruled that the measure of damages to be applied where an architect is found liable for malpractice based upon underestimation of costs should not be based upon the difference between the actual cost of the structure and the estimate, but rather upon "the difference between the total cost of the property to date and that amount of money which a prudent person would pay for the property in its present condition." If, therefore, the market value of the structure was equal to or greater than its actual cost, no damages would have been sustained. In any event, the Court made it clear that an architect's compensation is subject to forfeiture if, due to his failure to exercise reasonable care, he substantially underestimates building costs. □

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S See Sweet's 1975 Architectural or Industrial Construction Files (9.1/Pr) or send for new 8-page folder giving complete technical information and in-use application illustrations.

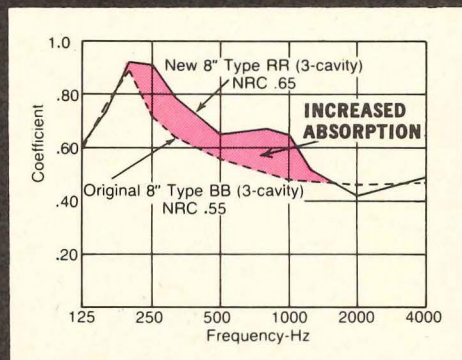
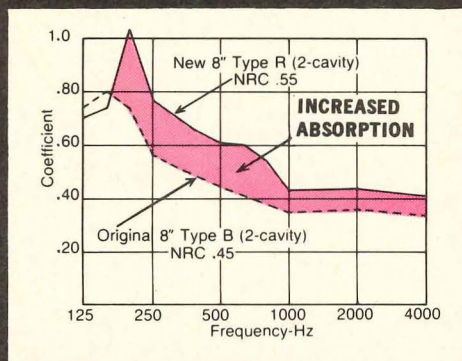
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girders. The advantages they
er I-beams were more than
for Berlin Steel to specify
or the Sage-Allen Department
they were building in West
rd, Connecticut. So much



*Joist girders have a simple span design. Which
why ponding calculations are easier. And
n time is shortened.*

that eleven days later they
ed them again. Only this time
tional Plastics and Plating
Co. in Plymouth, Connecticut.
re did Berlin Steel learn about
advantages? From meeting with
ft. The people who knew as



*Joist girders need fewer foundations and
Which means less work for you and larger
for your clients.*

about joist girders as Berlin
ut steel fabricating.
the first thing the Vulcraft
ers did was show Berlin Steel

why joist girders are easier to specify
and erect. By explaining that the
simple span design of joist girders
make ponding calculations easy. And
shorten design time.

By telling them about the larger
bay areas possible with joist girders.
And by talking about the fewer
foundations and columns needed with
joist girders than with I-beams.

Then came the subject of the
advantages joist girders offer after
they're erected.

And to explain that topic Vulcraft
talked about the modified Warren
truss configuration used in joist
girders. And that it gave joist girders
a high strength to weight ratio.

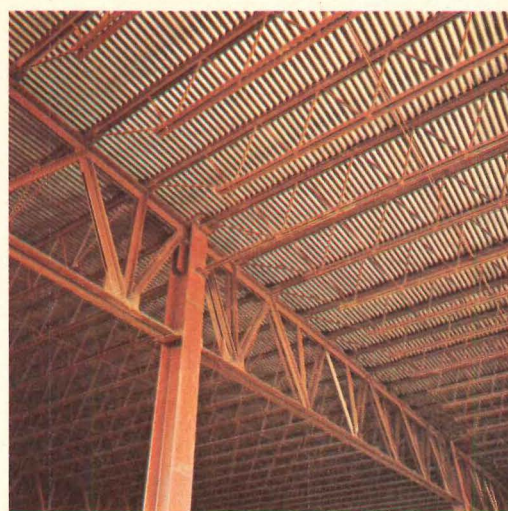


*Joist girders have a modified Warren
configuration using hot rolled double angle sections
for top and bottom chords and single and double
angle sections for web members. What that means
is a high strength to weight ratio.*

They mentioned further, that bar
joist erection was faster. Because top
chord panel points show joist loca-
tion, eliminating a lot of measuring.

Finally, the matter of ducts, pipes
and conduits came up. And Vulcraft
explained how these things go right
through a joist girder. Something no
one can say about an I-beam.

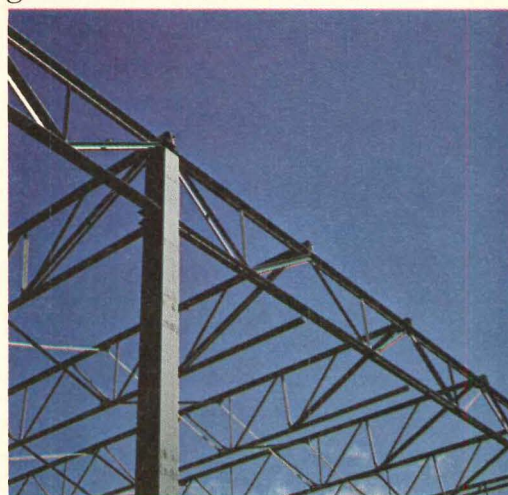
What it all added up to for Berlin
Steel was a change. A change from
I-beams to another roof-framing sys-
tem. A roof-framing system that was
more economical and easier to erect



*Joist girders have top chord panel points
that show joist location. Which makes a lot of mea-
suring unnecessary.*

for anything over 10,000 square feet.

It wasn't surprising to Vulcraft,
though. Because architects and
engineers all over the country are
discovering the advantages joist
girders have over I-beams.

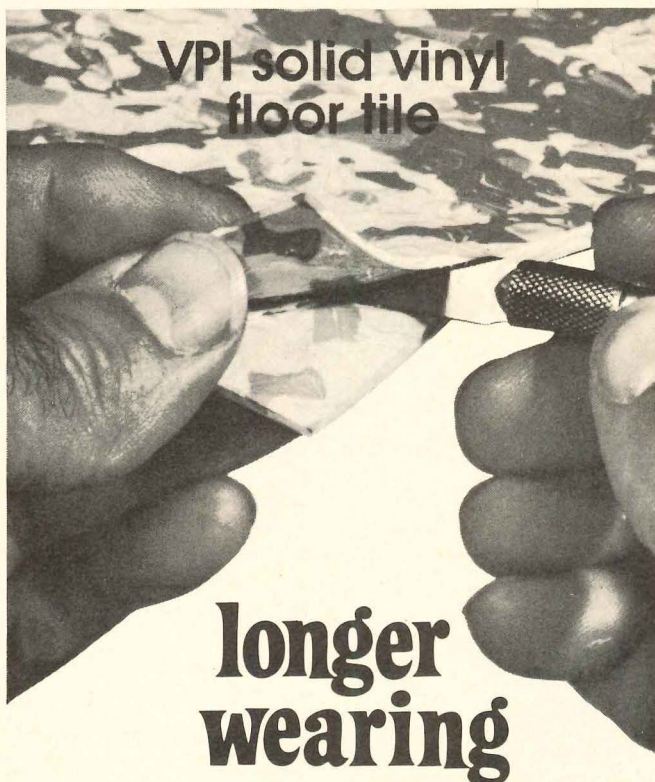


*Joist girders already have spaces for pipes,
conduits, and ducts to run through. So you don't
have to cut them yourself.*

If you'd like more information
about how joist girders can work for
you, send for Vulcraft's Joist Girder
Specification Guide. Just contact
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Steel didn't know. Until they asked.

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pany, Berlin, Connecticut. National Plastics and Plating Supply Co., Plymouth, Connecticut; Architect: Andrew C. Rossetti, Bristol, Connecticut / General
Contractor: S. Carpenter Construction Co., Bristol / Consulting Engineer: Hallisey Engineering Associates, Inc. / Steel Fabricator: Berlin Steel Construction Co., Inc.



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Books

New releases

The Yale Mathematics Building Competition: Architecture for a Time of Questioning, edited by Charles W. Moore and Nicholas Pyle. New Haven, Yale University Press, 1974, 117 pp., illus., \$15.

In 1969 Yale University announced a two-stage competition for the design of a new building for its mathematics department. As competitions go, it was an unusual one in that it asked for a "workable, economical, generally nonmonumental" building that responded to an exacting program and a difficult site. The response was notable—1600 applicants and 468 entries—and the results were interesting because the unanimously chosen winner was Venturi & Rauch. In this illustrated chronicle of the competition, the editors examine not only the winning design, but also a cross-section of the other entries to show a broad array of serious solutions to a complex design problem.

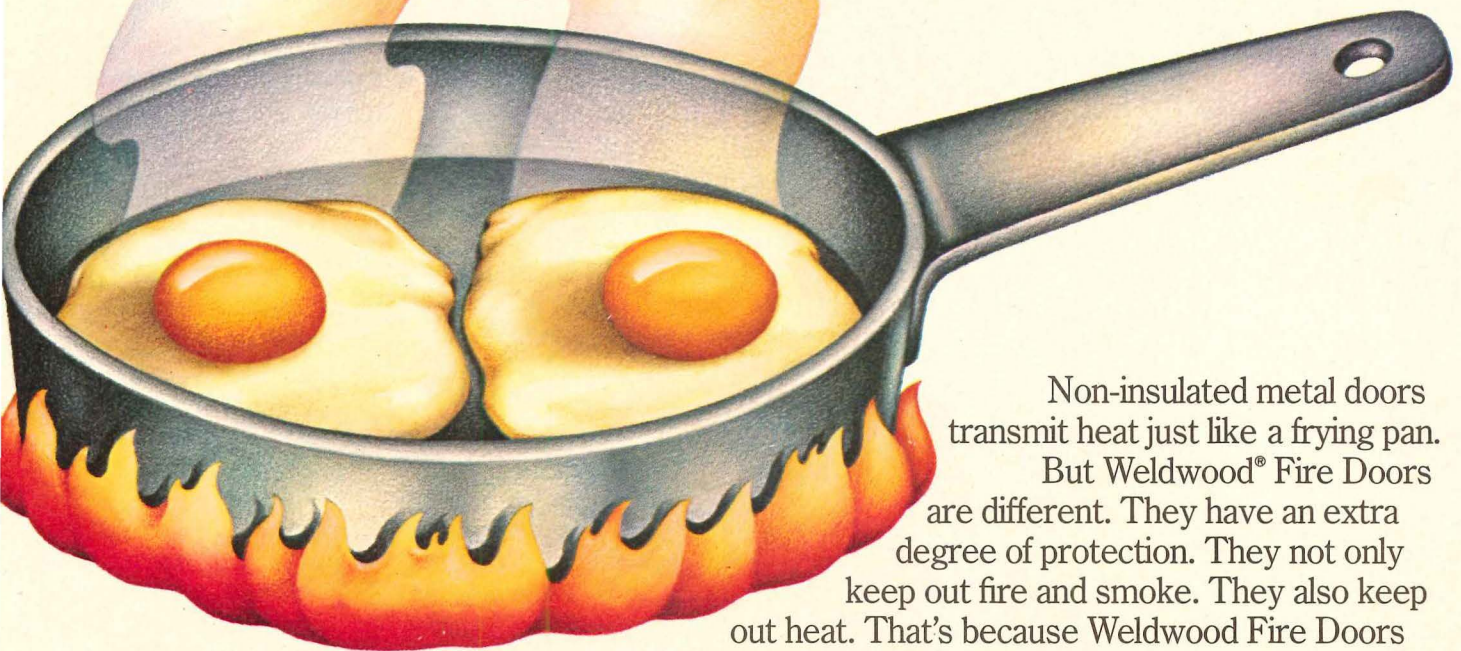
The Athens Charter by Le Corbusier, with a new foreword by Josep Lluís Sert. New York, Grossman Publishers, 1973. 111 pp., \$11.50.

The Athens Charter was first published in Paris—clandestinely, its author anonymous, with an introduction by Jean Giraudoux—in 1943, at the height of the Nazi occupation. Not until the second edition was published in 1957 did the name of Le Corbusier illuminate the Charter. This great modernist manifesto, a milestone in the history of urban planning, was the result of the fourth meeting of the CIAM, held in 1933 aboard the steamship Patris II, which cruised from Athens to Marseilles and back with, among others, Leger, Moholy-Nagy, Giedion, Janneret, Aalto, and Sert. The participants brought with them studies and plans of more than 33 cities, prepared over the previous four years, and together created a comprehensive outline of the problems, trends, and cures for the cities of the future. The documents, which Le Corbusier later expanded, exposes the insidious decay of cities, the dehumanization of their people, and the laissez-faire attitude of their public officials and lays down the requirements and priorities necessary to establish a healthy, decent, humane environment for man. This is the first published English translation of this magnificent plea for urban rights.

Mies van der Rohe at Work, by Peter Carter. New York, Praeger Publishers, 1974, 196 pp., 384 illus., \$30.

This comprehensive study is the first to document both the thought processes and the technical means by which Mies van der Rohe achieved his mastery of structure. The author—English architect Peter Carter—writes from a decade's experience, first as a student and subsequently as a close associate and friend of Mies. With an approach in which text, layout, and more than three hundred illustrations are carefully integrated, the author documents Mies' philosophy of architecture, his way of working, and his [continued on page 96]

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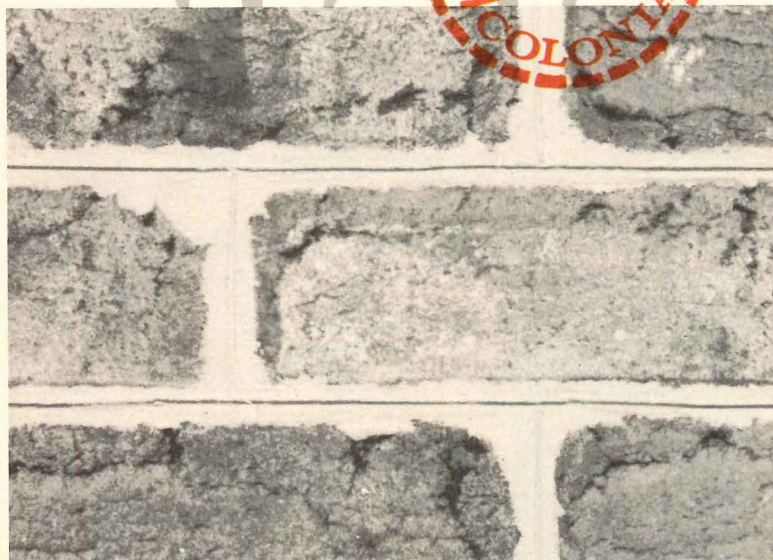
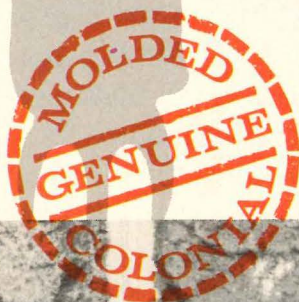


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Books continued from page 94

unique teaching method. The volume opens with a discussion of the philosophy, then the author presents a detailed examination of the architect's structural and spatial concepts together with an analysis of the three building types—the high-rise skeleton-frame building, the low-rise skeleton frame building, and the clear-span building—upon which he concentrated his energies. Mies' contribution to architectural education is illustrated with examples drawn from the work of his IIT students.

Designing for Industry: The Architecture of Albert Kahn by Grant Hildebrand. Cambridge, The MIT Press, 1974. 232 pp., \$14.95.

Albert Kahn designed his first factory in 1903; by 1918, when he began the Rouge River Ford Plant, he had become the foremost industrial architect of the United States. His reputation soon became international (there were over 500 plants in Russia alone), and by the time of his death in 1942, much of the rapid mechanization of the world in the previous 40 years had been guided by his designs. Kahn's contribution to architecture goes far beyond his revolutionary application of the principles and economics of technology to factory design, however. He also transformed the design process itself from an individual to a team effort by combining related areas of expertise in much the same manner as the new factories were combining skills and materials to mass-produced automobiles and other heavy machinery. This book documents and analyzes Kahn's career, including the unique team practice that he originated. Of the over 2000 factories designed by his firm, all representative prototypical examples are discussed in detail; major nonindustrial works by the firm are also included in order to present a comprehensive picture of Kahn's practice.

The Glass House, by John Hix. Cambridge, The MIT Press, 1974, 208 pp., illus., \$22.50.

The glasshouse—or greenhouse, in American usage—evolved in the 17th century to protect gardeners' exotic plants from the rigors of the northern winter. This book traces the development of man's skill in creating and controlling an artificial climate from the period of the 1600s to the present and beyond. The period of greatest advance in this field was the 19th century. The author discusses the ingenious constructions made initially for private individuals and botanical societies during the 19th century, and then examines the mass production of components and the fashioning of modular constructions such as the Crystal Palace. Discussions of the works of such architects as Paul Scheerbart and Bruno Taut, Frei Otto, and Buckminster Fuller close the volume.

Architectural Photography, by John Veltri. Garden City, AMPHOTO: American Photographic Book Publishers Co., Inc., 1974, 192 pp., \$17.50.

A new approach to architectural photography is presented in this book. John Veltri, an experienced architectural photographer, shifts the emphasis away from portraying architecture in the static way and instead takes a [continued on page 100]

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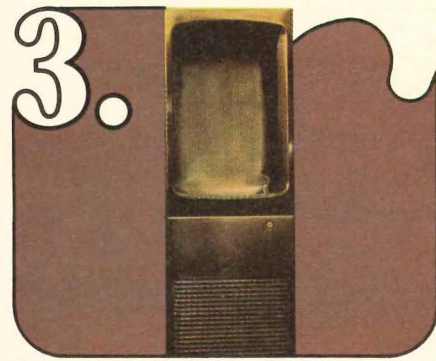
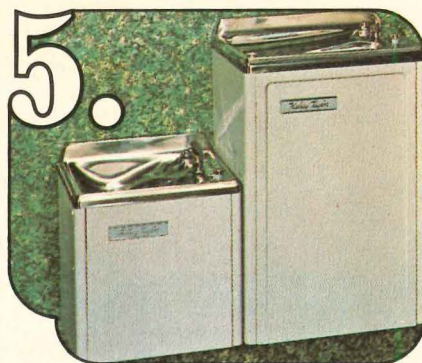
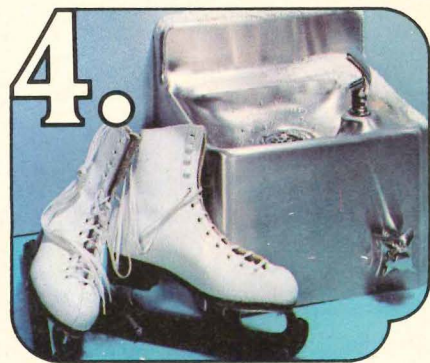
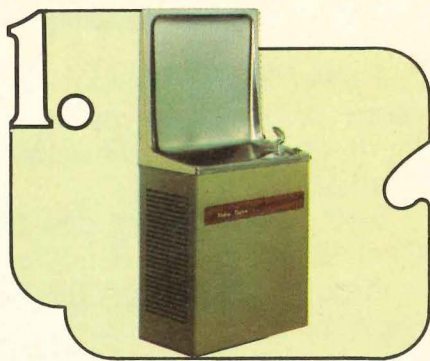
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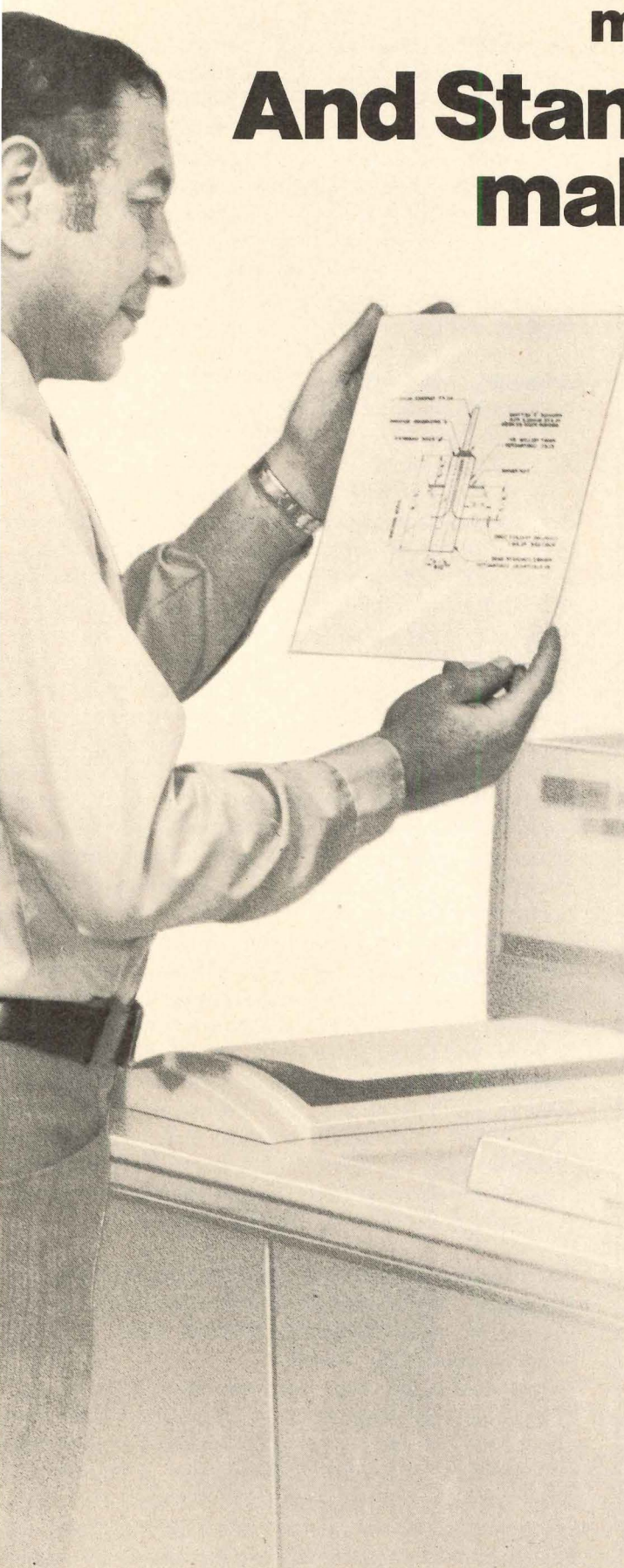
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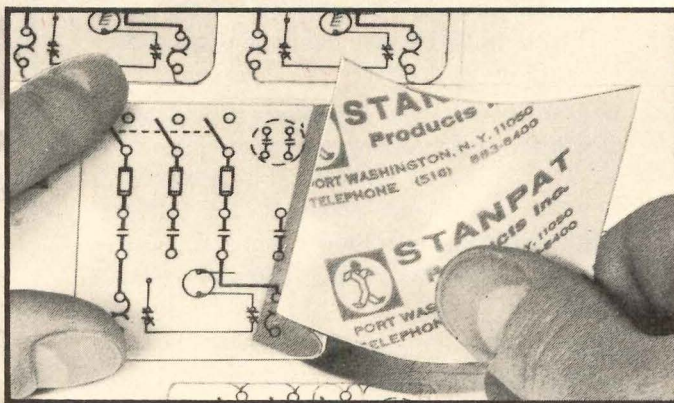
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Books continued from page 96

humanistic, people-oriented approach, which is illustrated with the works of many major architects, in both color and black and white. The book offers the potential architectural photographer all the technical information he needs: what film, cameras, and filters to use, how and when; how to use both natural and artificial lighting most effectively; how to select the best angle of view; and how to develop and print the pictures. Finally, the book explores the subtleties of photographic communication: how to use the tools of composition and perspective to allow the buildings to express themselves most fully.

Etienne-Louis Boullée, 1728–1799: Theoretician of Revolutionary Architecture, by Jean-Marie Pérouse de Montclos. New York, George Braziller, 1974. 128 pp., \$6.95, \$2.95. paper.

In this small volume, the author notes that "Boullée's work provides some particularly illuminating insights into that permanent revolution, the great movement of ideas, that violent uprush of imagination which marked the history of the arts in the latter half of the eighteenth century. It helps us to understand," he continues, "how the backward-looking aesthetic of the champions of a return to antiquity was transformed into a forward-looking aesthetic which is not unrelated to that of the twentieth century." The author uses abundant illustrations to document Boullée's development as an architect: from his adoption of the concepts of French classicism to express his reaction against the rococo, through his need to return to antiquity to achieve true architectural form, and his elaboration of a theoretical definition of art in which he reduces the aesthetic of all fine arts to the single principal of the imitation of nature. Boullée's influence made its chief impact during the French Revolution; but with the rise of totalitarian regimes in the 20th Century there came a renewed concern with the symbolic implications of architectural design. The works of Tatlin and Speer show some striking similarities with Boullée's designs; there are close parallels between Boullée and Le Corbusier, and between Boullée and Frank Lloyd Wright, in some other aspects. But, in spite of the affinities between modern architecture and the progressive views of architectural design set forth by Boullée, his expectations are far from having been fulfilled.

The Architecture of Frank Lloyd Wright: A Complete Catalog by William Allin Storer with foreword by Henry-Russell Hitchcock. Cambridge, The MIT Press, 1974. About 400 unnumbered pp., \$9.95.

This work is the only publication that documents all of the buildings designed by Wright. It also offers a short commentary on each building and a picture of each exterior structure and, incidentally, includes over 100 buildings that have never before appeared in print. For each building, a unique name (usually the name of the original client) and catalog number are assigned, and the date of conception and the location are given. The text describes methods and materials of construction, identifies the basic plan, and provides other information that serves to place the building in its context or to relate it to other buildings.

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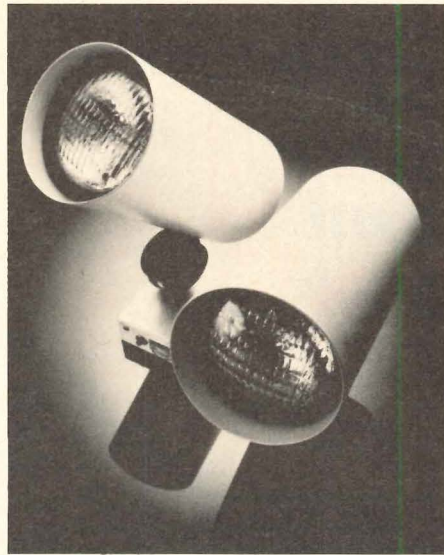
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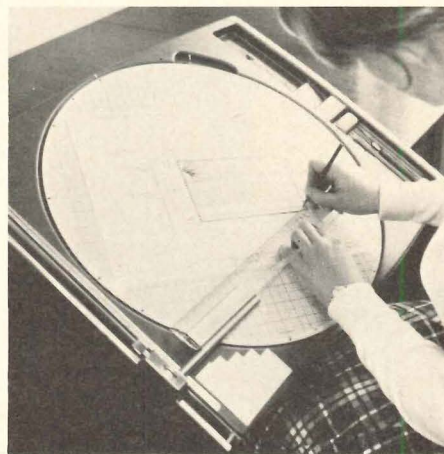
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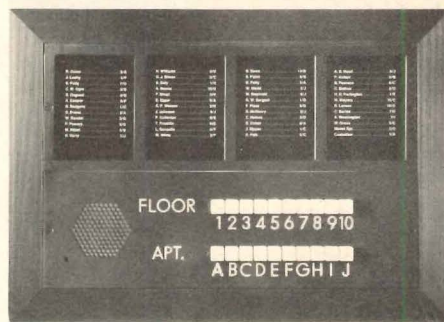
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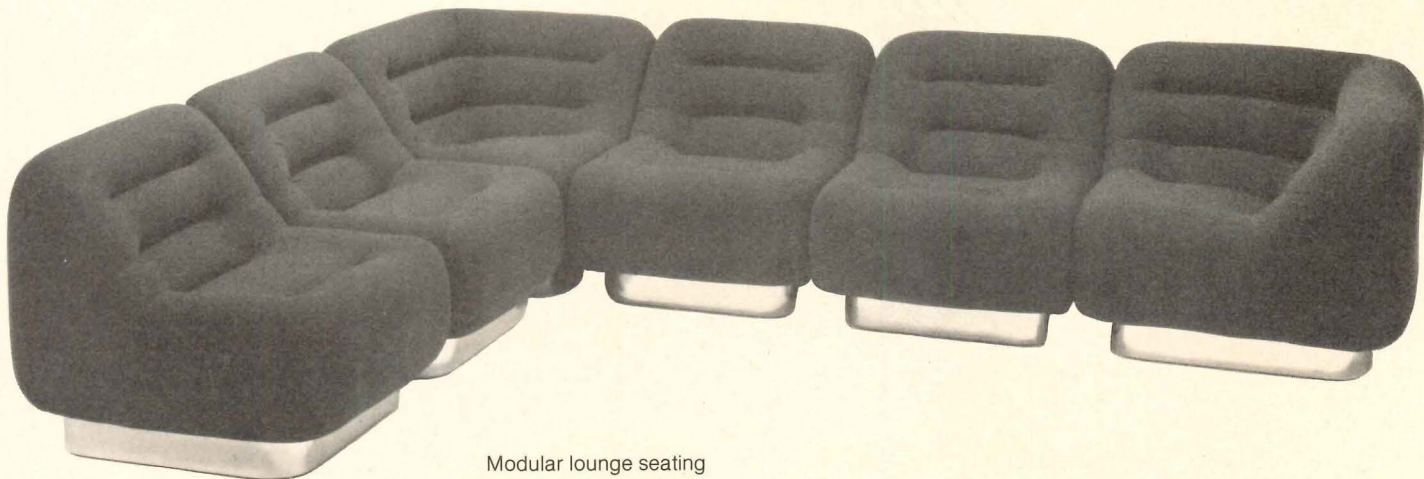
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[continued on page 104]



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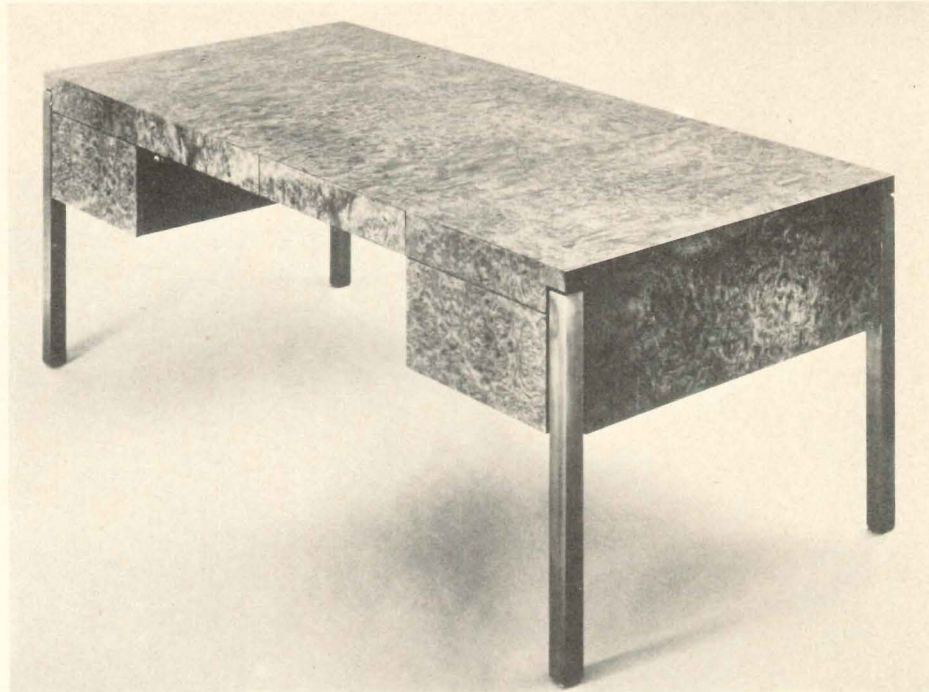
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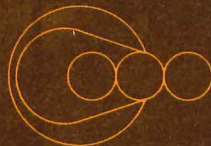
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[continued on page 108]



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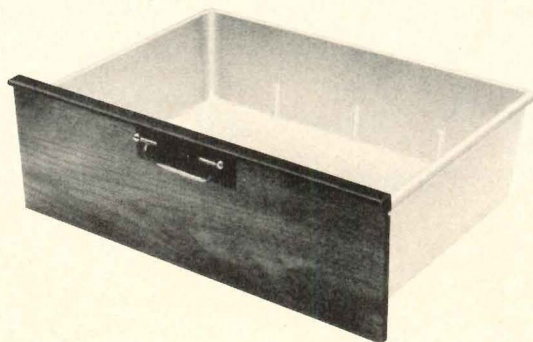
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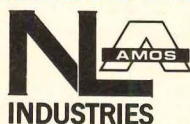
This interchangeability factor can save hotels, motels, hospitals, apartments and institutions thousands of dollars and you thousands of headaches. One-piece construction . . . strong enough to stand on . . . and easy-to-clean cove corners are just some of the user benefits. You can even store wet or moisture producing materials in Amos drawers because they are leak proof. For decor effect you can attach any kind of drawer front you want with either adhesives or screws. And they come complete with guides and suspension systems.

Send for Bulletin 300 and learn all about the drawers with no warp . . . no swell . . . no splinters . . . no snag . . . no sag . . . no shrink . . . no rack and absolutely no stick. No complaints, ever, from architects, builders, designers or users.

Amos Molded Plastics
Division N L Industries, Inc.
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Amos Molded Plastics



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ADCO Acousti-Call booth...

SOAKS UP NOISE!

**Lets You Hear,
Be Heard,
Have Privacy...**



Compact, attractive Acousti-Call 20-S booth lets you hear and be heard, permits conversational privacy in airy comfort. Fits in corners, against walls, in corridors or rest rooms. Acoustical blanket behind stainless steel interior soaks up sound and noise. Writing shelf.



Compact — quiet. Stainless steel ADCO 40-S Acousti-Call booth has no legs, takes no floorspace. No door, low maintenance.

Send today for color brochures on ADCO and Burgess-Day acoustical booths.



ACOUSTICS DEVELOPMENT CORPORATION
and its BURGESS-DAY DIVISION
P.O. Box 397 — 1810 Holste Road
Northbrook, Ill. 60062 Phone 312/272-8880

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Our remote control blind is a shade above the others.

Alcan Mark II® blinds control heat, light and glare as well as any window treatment. But we made our blind a shade better than the rest. Because we made the only one-inch blind that is one inch all over: louvers, headrail and bottomrail. With nearly invisible ladders. So the slim-line effect is beautifully consistent from top to bottom.

Now we've added another little touch. Motorized control. Two "C" batteries power a tiny motor that fits invisibly inside our one-inch-square headrail. And the control can be installed at the wall or anywhere in the room.

Remote control is just a shade of difference,

maybe. But enough to set one executive office or conference room apart from another. And it's an especially good idea for blinds between the surfaces of double-pane windows.

We'll send you a list of window manufacturers who use Alcan Mark II blinds. We'll also send you a book full of other good design ideas — colorful ideas — for using the Mark II with or without motorized control. Just write for *Window Moods* to Alcan Aluminum, Dept. IP, Box 511, Warren, Ohio 44482.

Alcan Building Products

Division of Alcan Aluminum Corporation



Products continued from page 104

Indoor tennis lighting. It consists of a series of 1000 w metal halide fixtures mounted on unistrut type channeling so that the reflector opening (covered with a wire guard) points toward the ceiling. Fixtures are placed above the ends of each court and between each of them at a height of about 20 ft. Units have white porcelain enamel reflector; ballast and all other visible parts are also white. Thomas Industries, Inc.
Circle 116 on reader service card

Lectern. Normal height of 2'-3" accommodates seated speakers but special fold-up panel raises lectern height to 3'-6 1/4" for standing users. Unit has recessed microphone and provides fingertip control of audiovisual equipment. Remote control panel (optional) provides control of everything from motion picture and slide projection to volume to room lighting. Comes in walnut, other woods, or plastic laminates and can be made to individual specifications. Jerome Menell Company Inc.
Circle 117 on reader service card

Sliding drapery panels. Constructed of lacquer-finished hardwood, each panel incorporates a styled wood motif and curtains are hung behind the frame to set it off. A sliding track at the top and bottom allows panels to slide open and close. They can be made to fit any size and shape window or wall area. Wood Art, Inc.
Circle 118 on reader service card

Literature

Carpet for commercial, institutional, and industrial interiors is shown in full color, 1975 catalog together with architectural specifications and recommended usage. Armstrong Cork Co.
Circle 201 on reader service card

Floor system. Four-color brochure includes technical sections with tables, details, design examples, fire ratings, specifications, installation photos, and comprehensive descriptions of the system which, states maker, is designed to provide long, unobstructed spans for projects with residential loading requirements, Epic Metals Corporation.
Circle 202 on reader service card

Ceramic tile. 1975 full-color catalog shows more than 160 individual tiles and colors, plus nearly a hundred pattern and color combination ideas for commercial, institutional, and residential use. Included are specifications and test data as well as information about characteristics, applications, mounting and trim. United States Ceramic Company.
Circle 203 on reader service card

Precast concrete decks. Booklet explains the advantages of precast concrete for decks and bearing walls in apartments and townhouses. Information is based on factual studies, professional surveys, and actual experience of apartment builders, owners, and developers. The Flexicore Co., Inc.
Circle 204 on reader service card

Vinyl flooring. Full-color brochure for 1975 shows floor tile for commercial applications, wall base, carpet runner, corner guard, static conductive flooring, and synthetic ice and recreational flooring. Vinyl Plastics, Inc.
Circle 205 on reader service card
[continued on page 110]

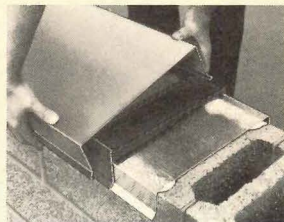
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We guarantee our new PERMASNAP COPING SYSTEM against water leakage. Period.

The secret is a styrene gutter chair at each joint that quietly carries water away.

We also make sure the system stays in place. Without expensive imbedded anchor bolts. A special adhesive replaces them. And it sticks against 60 lbs per square foot of uplift.



Permasnap Coping Covers are also simple to install. (It has to do with the "snap" in the name, but it's simpler if you see it for yourself.)

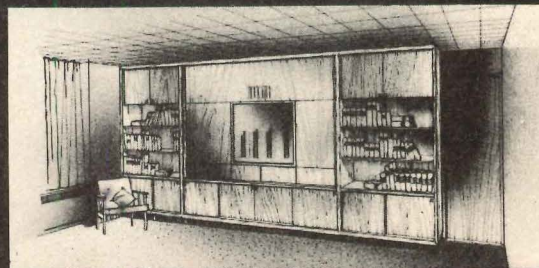
All in all, it's a pretty simple system. Only three parts. And we guarantee all of them. Specify Hickman.

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W. P. Hickman Company, Inc.
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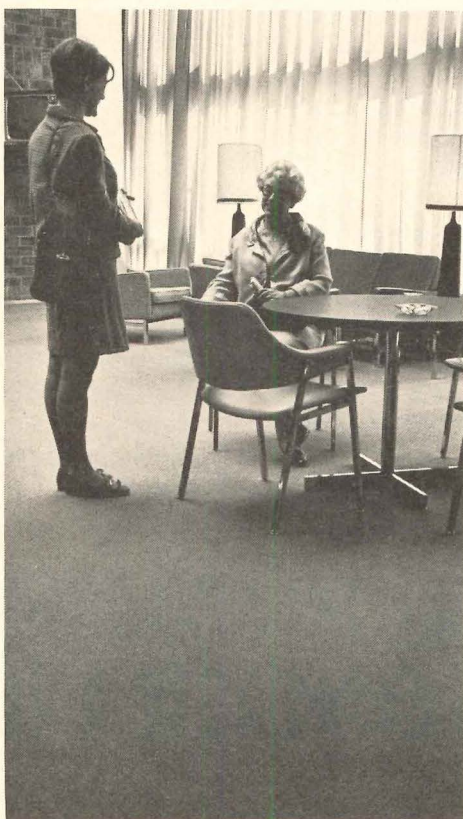
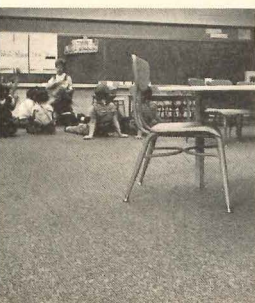
AV-COM owners include: IBM Corporation, New York Telephone Co., Philip Morris International, Shell Oil Co.

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Circle No. 328 on Reader Service Card

Literature continued from page 108

Signs. Catalog is a guide for designing, selecting, and specifying the appropriate products and services. Covered are all types of interior and exterior custom and standard signs, directories, plaques and memorials, and more. Best Manufacturing Company. *Circle 206 on reader service card*

Earthquake report. A 54-page report consisting of two papers, "Engineering Lessons from the Managua Earthquake" and "Managua: Effects on Systems," is available from Engineering Division, American Iron and Steel Institute. *Circle 207 on reader service card*

Plywood construction guide is a 56-page booklet that reflects specifications of product standard (PS 1-74) and contains usage recommendations for designing and constructing commercial and industrial buildings. Roof systems and wall construction data are included with comprehensive index. American Plywood Association. *Circle 208 on reader service card*

How to apply for funds. A new publication tells how to locate and assemble the data required to apply for block grants and other funds under the Housing and Community Development of 1974. Topics included: Community Development Plan Summary, Annual Performance Reports, Program Amendments, and Loan Guarantees. Also included are a sample report format, sample computer-printed map, and an index. Urban Statistical Div., R. L. Polk & Co. *Circle 209 on reader service card*

Lighting standards. Brochure includes dimensions and illustrations for each of eight models, design specifications, lighting standard installation details, and a color selection chart. Forest Products Division, Koppers Company, Inc. *Circle 210 on reader service card*

Ceramic tile. Full-color magazine published three times a year illustrates the tile's many uses, including in and around swimming pools for which design data is given. Buchtal Ceramic Works. *Circle 211 on reader service card*

Plywood. This booklet gives properties, recommended design stresses, and design methods for plywood. The 30-page manual is based on laboratory testing, product research, and field experience. All data applies to construction and industrial plywood made in accordance with U.S. Product Standard PS1. American Plywood Assoc. *Circle 212 on reader service card*

Soundblox 2 are sound-absorbing structural masonry units which use special fillers with metal septums. Units are load-bearing and permit sound control to be built into the structure of a building, states maker. Brochure gives details. The Proudfoot Company. *Circle 213 on reader service card*

Translucent building walls. Consisting of two fiberglass reinforced face sheets that are permanently bonded to a structural aluminum I-beam grid core, sandwich panel is 2¾-in. thick and weighs 1½ lbs per sq ft. Maker states system can drastically reduce energy consumption. Full-color brochure is available from Kalwall Corp. *Circle 214 on reader service card*
[continued on page 112]

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That's Page aluminized chain link fabric. What has it got over galvanized fence besides 3-5 times longer life? Better quality. Higher tensile strength. Stretches easier. Erects easier.

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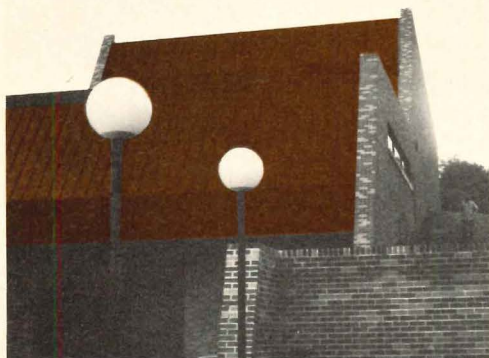
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Send for **FREE ColorKlad "SIX-PAK"**

Actual ColorKlad samples in six standard colors, along with our ColorKlad brochure.

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Address

City State Zip

Literature continued from page 118

Casegoods. Three full-color brochures present company's lines for health care, educational and other applications. Thonet Industries, Inc.
Circle 215 on reader service card

Flush doors. Eight pages of color photos with brief descriptions and specifications of contemporary and traditional wood flush doors and folding door units are shown in 1975 catalog. Mohawk Flush Doors, Inc.
Circle 216 on reader service card

Wall system that is sound-absorbent but gives an uninterrupted monolithic expanse of wall comes finished in choice of over 85 Vicrtex vinyl wall-coverings. Acoustical data, panel construction, installation procedure, and typical installations are included in full color brochure from L.E. Carpenter & Company, Inc.

Circle 217 on reader service card

Where to Buy Hardwood Plywood & Veneer is the name of a buyer's directory that lists the various types of products as well as the species, sizes, and other information which is helpful in specifying. Hardwood Plywood Manufacturers Association.

Circle 218 on reader service card

Contract carpet. Updated 32-page catalog gives architects' specifications by product line, general information, and guidelines. "Contract Carpet Information Manual" deals with general facts about contract carpet, government requirements, a glossary of textile terms and installation particulars, fiber facts and technical information. Wellco Carpet Corporation.

Circle 219 on reader service card

Steel framing. 32-page color catalog illustrates how framing can be used when building up to four stories, i.e., townhouses, nursing homes, schools, motels, etc. Includes revised technical data on physical and structural properties tables, updated allowable uniform load tables for joists, revised wind load tables for studs, dimensional drawings showing studs, joists, track and bridging and their various sizes and depths. Wheeling-Pittsburgh Steel Corp.

Circle 220 on reader service card

Circle No. 378, on Reader Service Card

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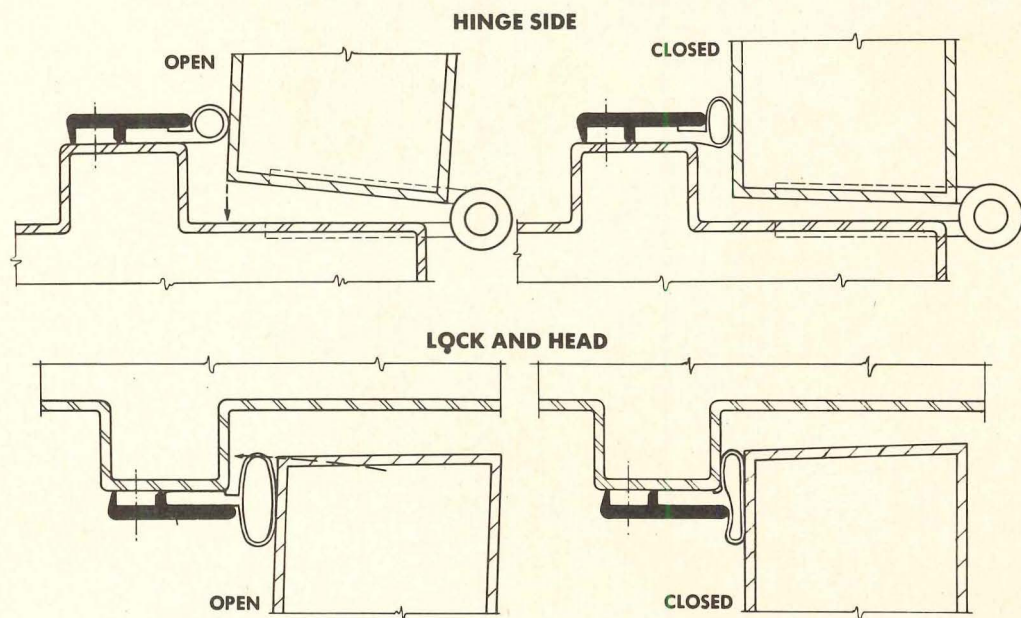
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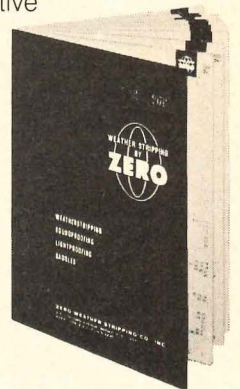
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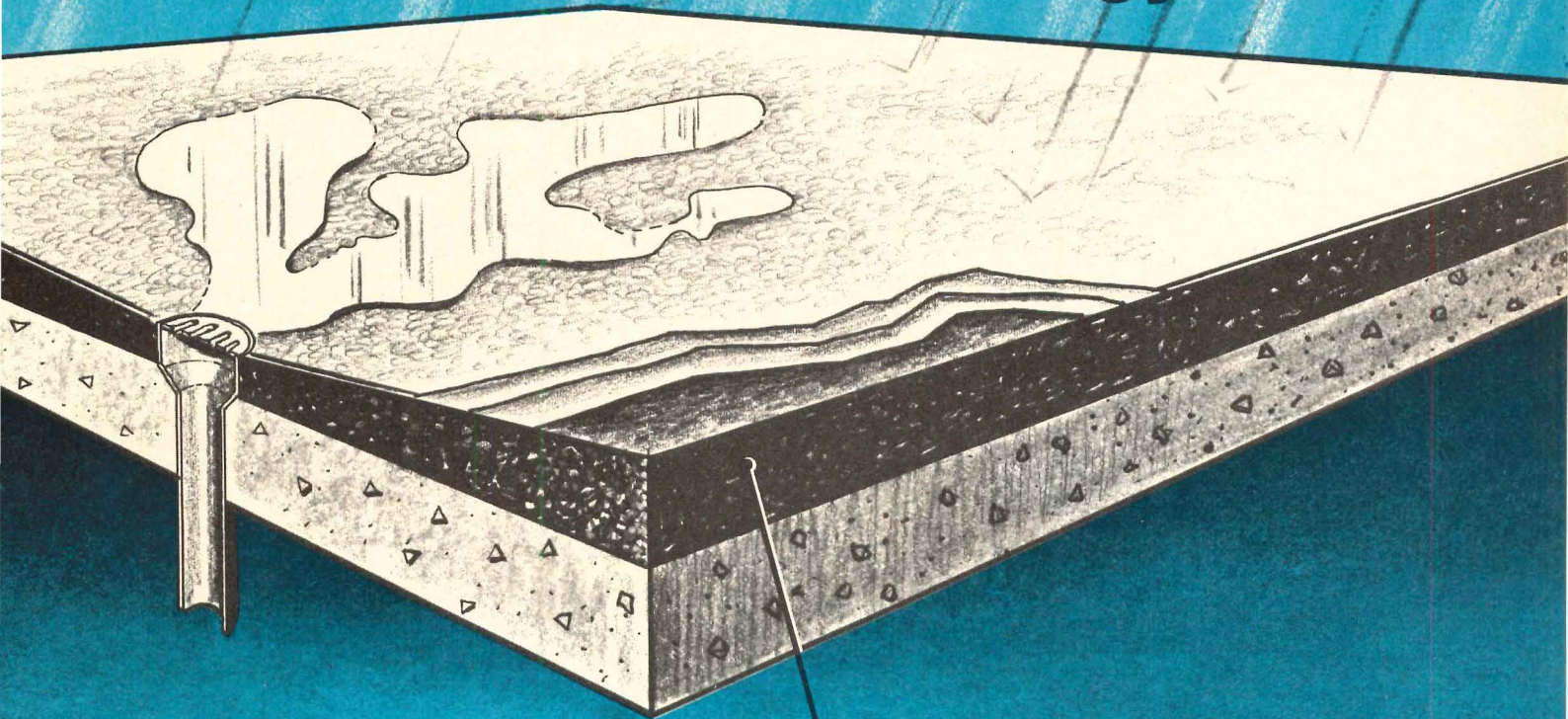
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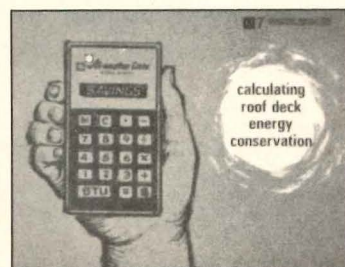

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Progressive Architecture

Notices

Appointments

Edwin F. Heyer has been elected to the Board of Directors of Connell Associates Inc., Architects, Engineers, Planners, Coral Gables, Fla.

Michael D. Tatum has joined RYA/Space Planning Incorporated of Dallas as vice president for planning.

George S. Hammond, AIA has been named director of the Chicago office of Welton Becket & Associates and a senior vice president of the architecture and engineering firm.

Forrest Blaney has joined Charles N. Sandifer & Associates, Memphis, Tenn., as landscape architect and environmental planner.

Victor A. Cusack, AIA has been promoted to vice president of William L. Pereira Associates, Los Angeles.

Robert T. Lyles has been named president and chief executive of Lyles, Bissett, Carlisle & Wolff, Columbia, South Carolina.

Richard W.S. Lee has joined the staff of James Gilbertson Associates, Lake Havasu City, Ariz. architecture and land planning firm.

F. William Heilman, Jr. has been elected executive vice president of STV, Inc., New York City consulting engineers.

David C. Martin has been appointed director of design for Albert C. Martin & Associates, Los Angeles.

James L. Hewlett, AIA has been named president of Architectural Designers, Inc., Architecture Interiors & Planning, Dallas.

Warren E. Kieding has been promoted to an associate of Alexander/Rickli Architects, Englewood, Colo.

Raquel Ramati has been appointed

to head the Urban Design Group of the New York City Planning Commission. Frank Puig, III was named director of the department's Manhattan office.

Raymond C. Hollenberg has been appointed director and Linda Thieman administrative assistant of the newly established department of development for William B. Ittner, Inc., Architects, Engineers and Planners, St. Louis, Mo.

Stanley L. Krugman has been elected president of Jacobs Engineering Company, Pasadena, Calif.

William B. Shields has been named group vice president-energy conservation systems and elected to the board of directors of Commonwealth Associates Inc., Jackson, Mich.

George Buermeyer, AIA has joined Rogers, Butler & Burgun, Architects, New York City, as a senior project designer for health facilities. Bruce Hartwigsen, AIA and Hussein Shahine, AIA have been admitted as general partners to the firm.

New addresses

Daniel L. Dworsky FAIA Architect & Associates, 9665 Wilshire Blvd., Beverly Hills, Calif. 90212.

Rosenfeld/Harvey/Morse Architects, 350 Madison Ave., New York City 10017.

Landow & Landow Architects, 66 Commack Rd., Commack, N.Y. 11725.

Cambridge Seven Associates, Inc., 1050 Massachusetts Ave., Cambridge, Mass. 02138.

Organizational changes

Henningson, Durham & Richardson has opened a regional office in Atlanta, Ga.

Herman Blum Companies, Inc. has established J. Howard Garrett & Associates, Inc., landscape architects.

K/M Associates Inc. has opened a Chicago office at 20 N. Wacker Dr., headed by Ben E. Graves.

James T. Canizaro Architect is now Canizaro Trigiani Architects, Jackson, Miss.

EDAW, INC. has opened an office in Fort Collins, Colo. with Herbert R. Schaal as principal in charge.

Ballinger has opened a branch office at 1747 Pennsylvania Ave., N.W., Washington, D.C.

Alden B. Dow Associates, Inc. has established an office in Traverse City, Michigan.

It takes guts to do it right.



Shower systems for hospitals, nursing homes and elderly housing have got to be incredibly precise, incredibly flexible and incredibly tough. Precise enough to deliver exactly the water temperature needed without dangerous

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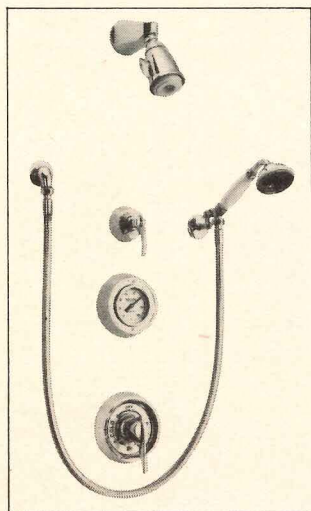
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Bally Walk-In Coolers and Freezers belong everywhere mass feeding takes place. They can be assembled in any size for indoor or outdoor use from standard panels insulated with four inches of foamed-in-place urethane, UL 25 low flame spread rated and Factory Mutual research approved. Choice of stainless steel, aluminum or galvanized. Easy to enlarge . . . easy to relocate. Refrigeration systems from 35°F. cooling to minus 40°F. freezing. Subject to fast depreciation and investment tax credit. (Ask your accountant.) Write for 28-page book and urethane wall sample. **Bally Case & Cooler, Inc., Bally, Pennsylvania 19503.**



positions open

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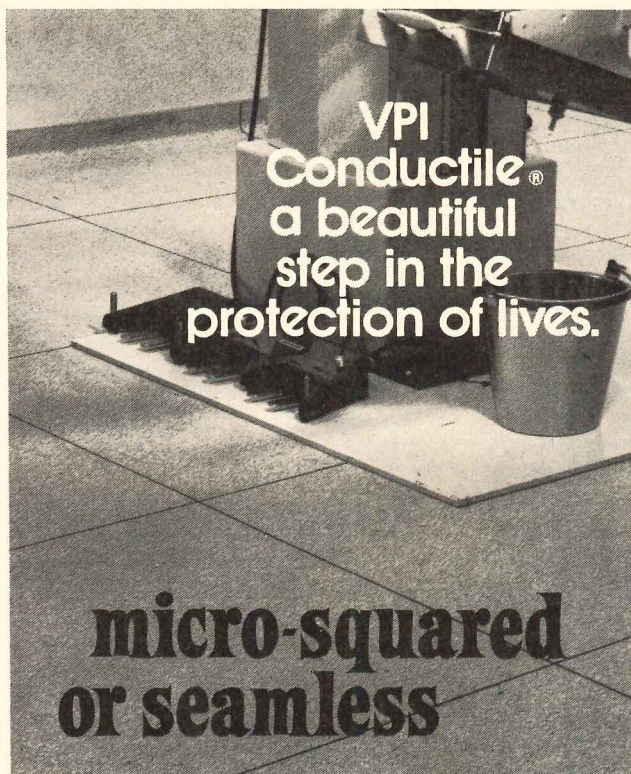
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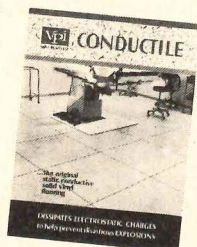
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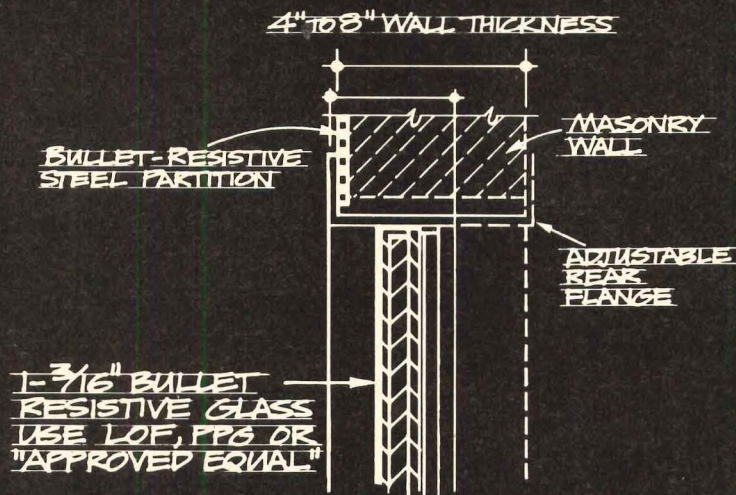
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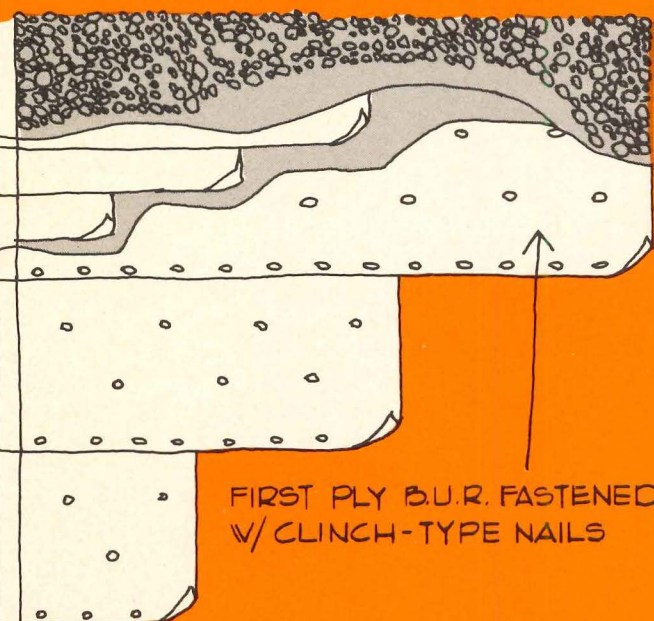
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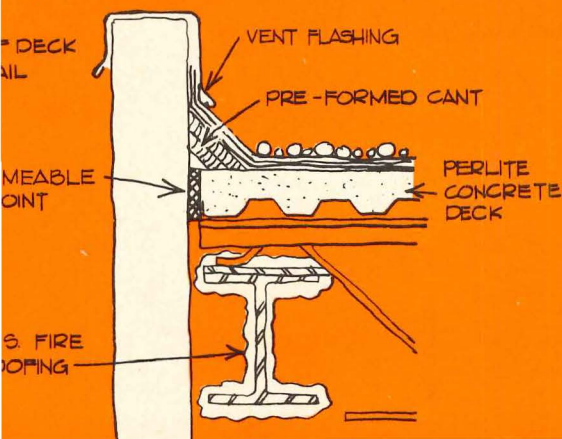
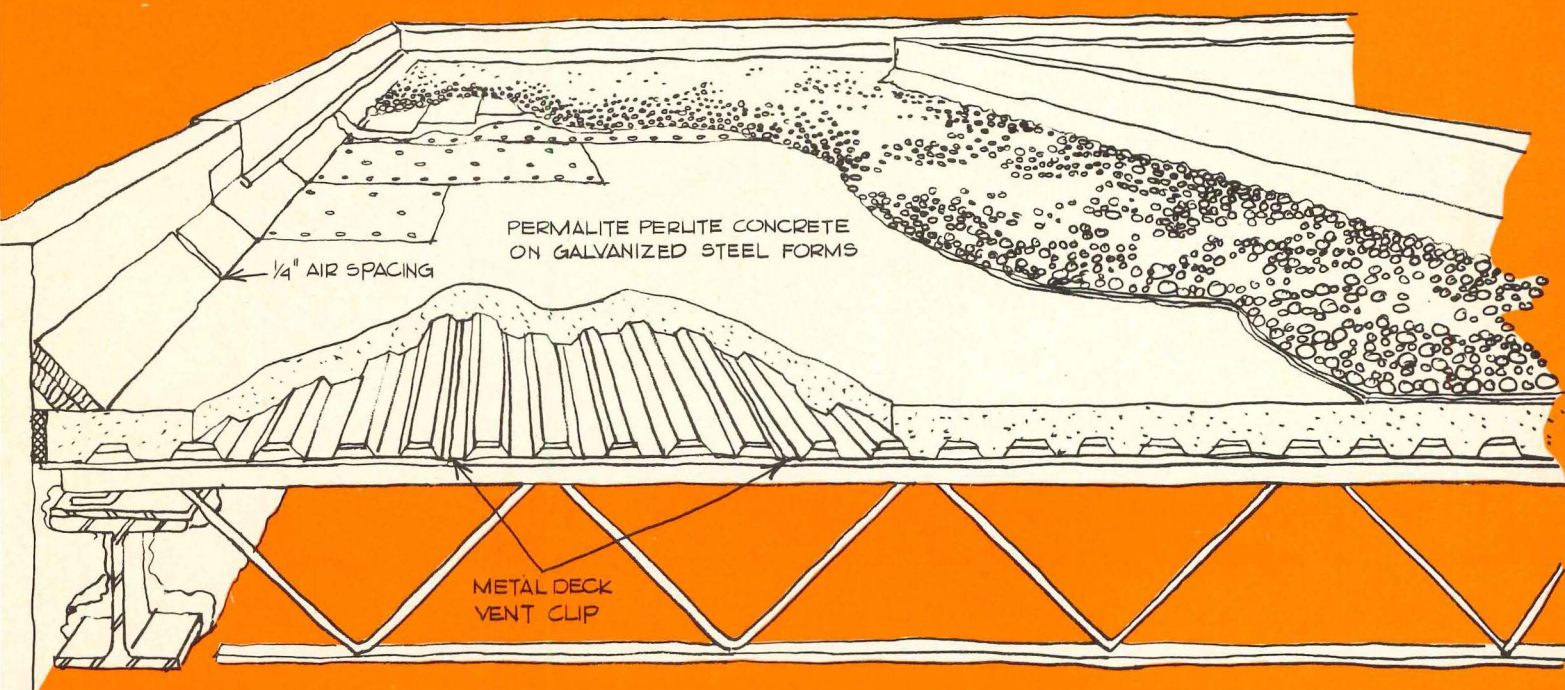
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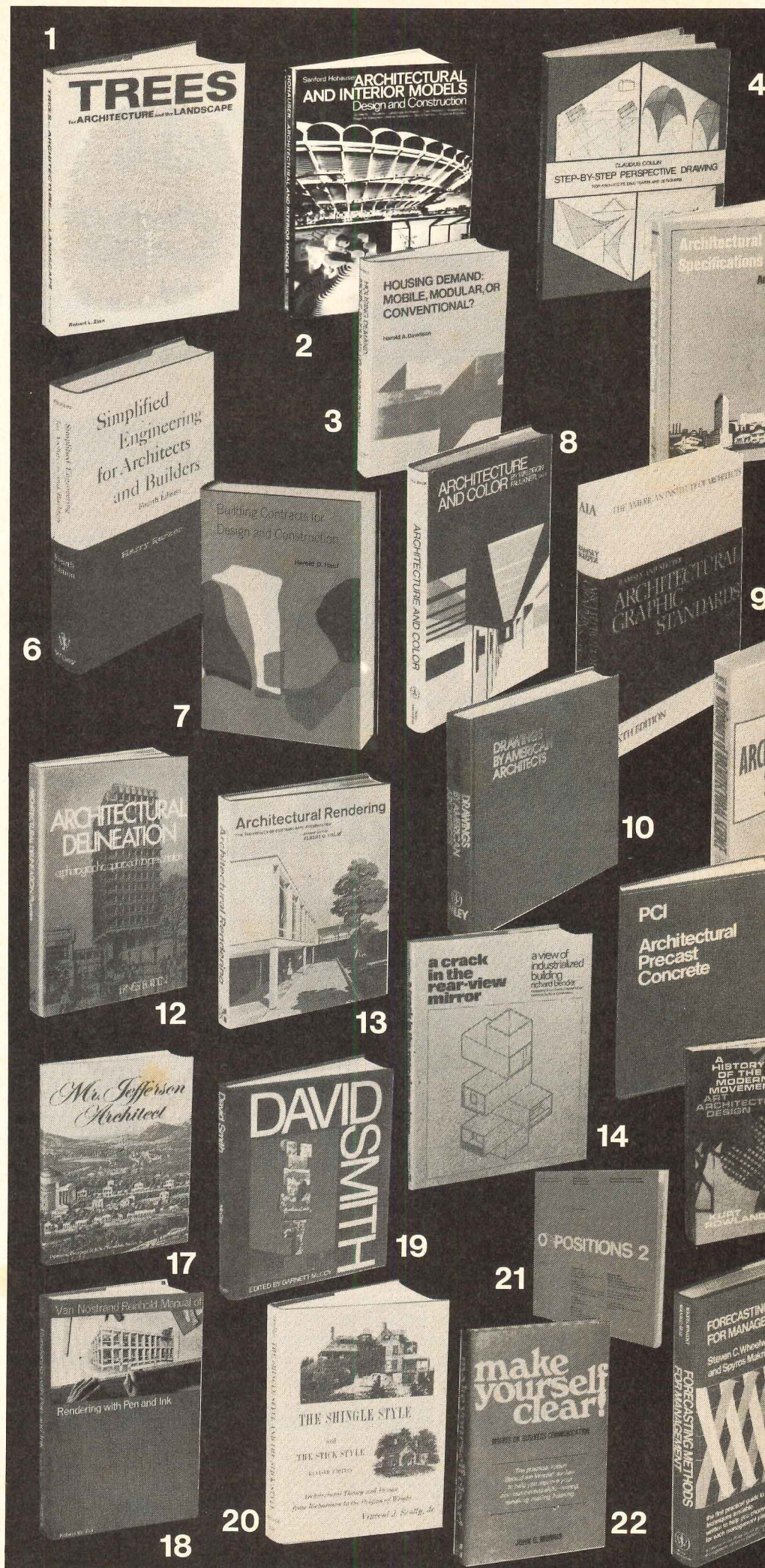
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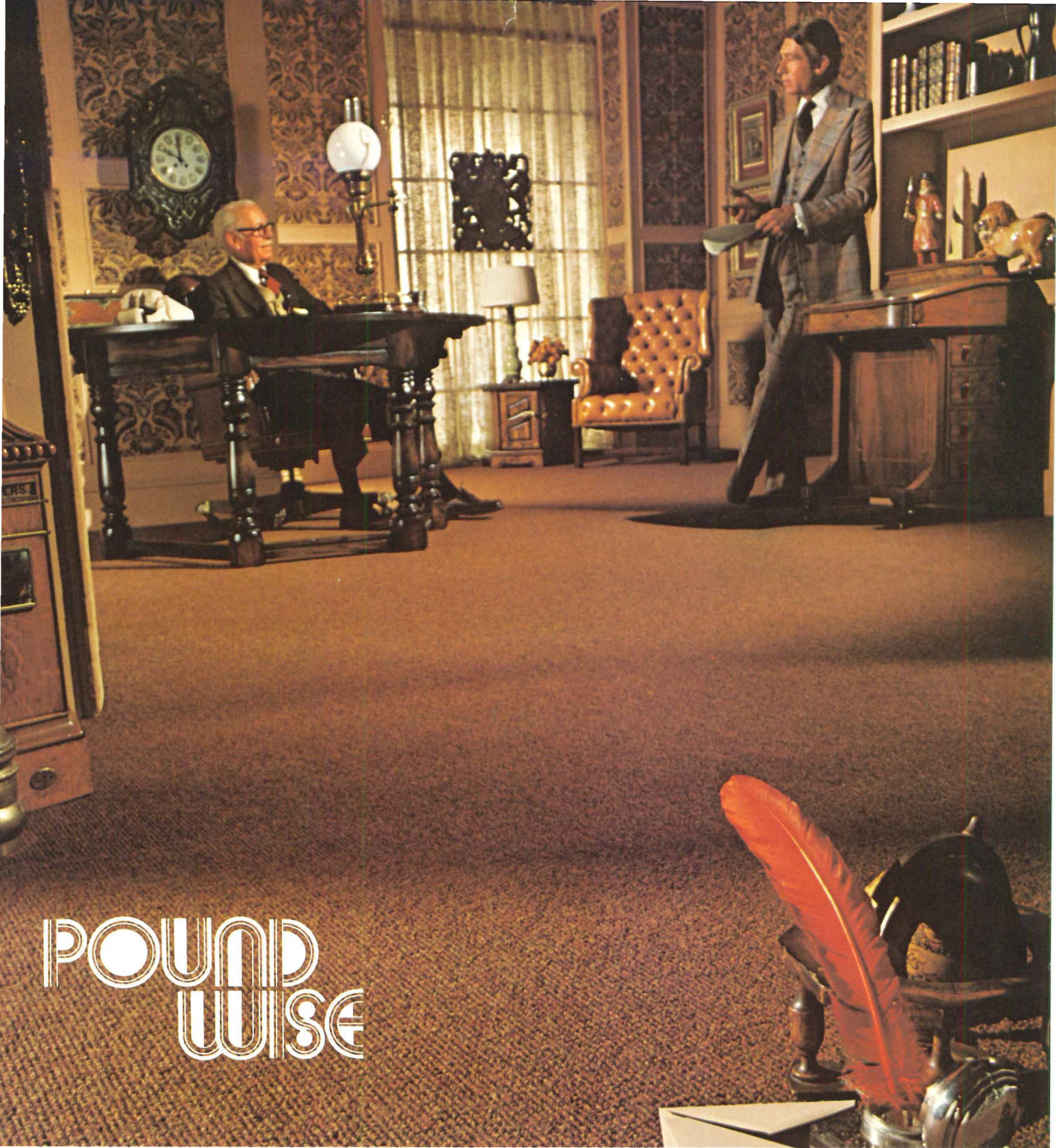
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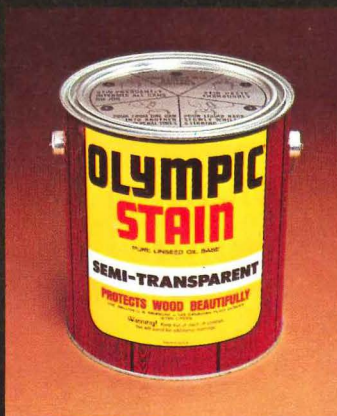
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