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Progressive Architecture

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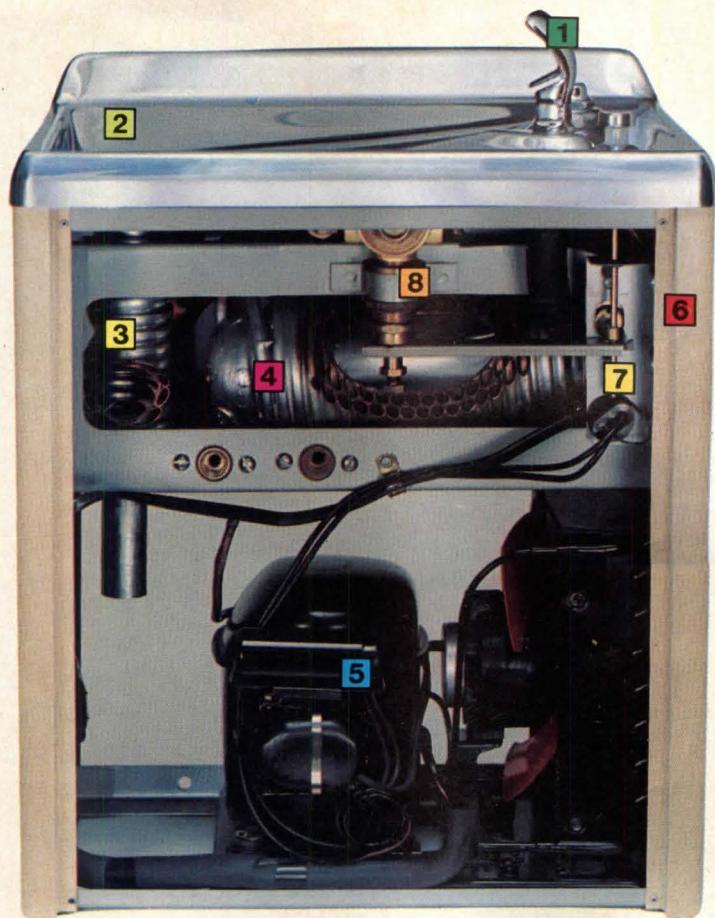
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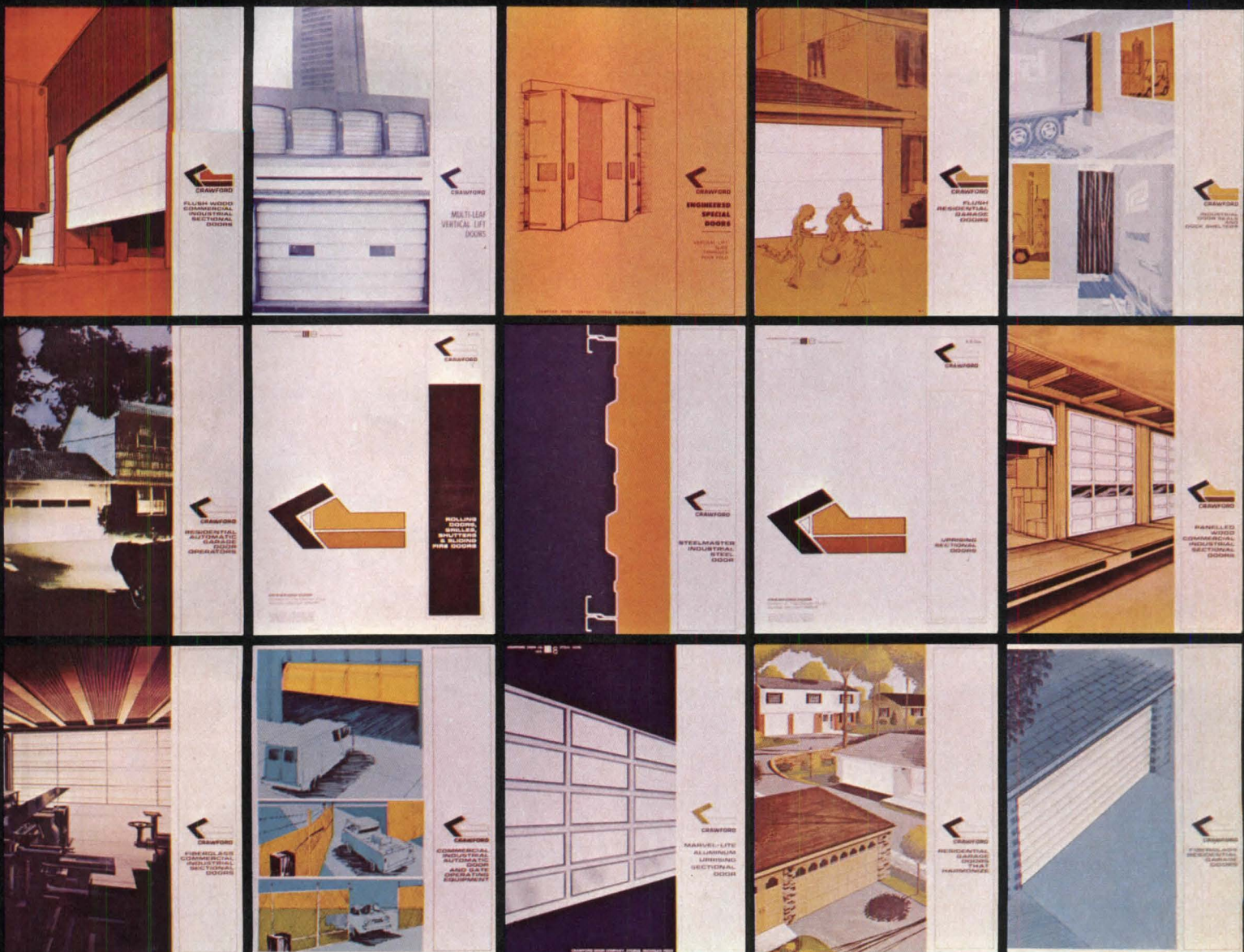
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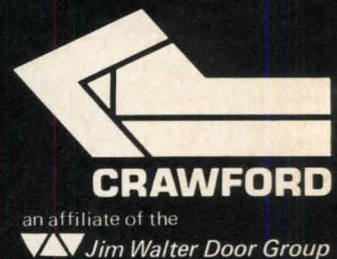
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May 1973

Progressive Architecture

Places to live

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Public housing for UDC in Ithaca, N.Y. derives its form and urbanity from European hill towns; Werner Seligmann & Associates are architects
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Instead of a campus, box or slab, Ulrich Franzen provided a 72-sided sculptural statement to house the elderly in a small New England town
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Making the most out of standard items from catalogs, architect Peter Behn met the budget and the owners' requirements for a California house
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Cover: UDC Ithaca Scattered Site Housing Project, Elm St. site, designed by Werner Seligman & Associates (p. 64). Photo: Nathaniel Lieberman.

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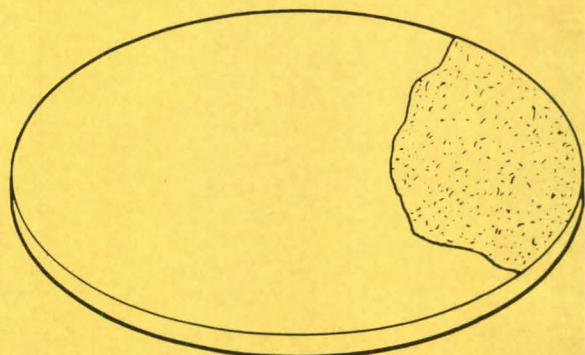
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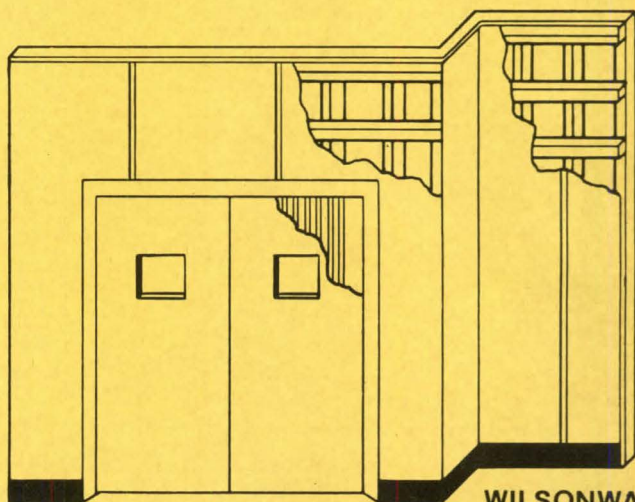
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People in P/A

Venturi & Rauch

Although their work is inevitably identified with Robert Venturi, this firm is by no means a one-man show. Instead, the office operates, according to long-time associate Steven Izenour, "as a cohesive team, an efficient one in that we all understand each other and can leave a lot unsaid." The team includes the three partners, Venturi, John Rauch and Denise Scott Brown (Venturi's wife), plus a staff of four for architecture, two for planning.

Venturi himself worked for Eero Saarinen and Louis Kahn before forming a partnership with Princeton classmate William Short in 1960. Their major work, in addition to a number of houses, was the Guild House apartments for the elderly in Philadelphia. In 1964, Venturi entered into a partnership with John Rauch, who had worked on Guild House for the associated architects, Cope & Lippincott. Denise Scott Brown joined the partnership in 1967. Venturi & Rauch's largest building to date, the humanities building at the Purchase campus of the State University of New York, is now nearing completion.

All three partners have taught at the Univ. of Penna. (from which Rauch holds a B. Arch. and Scott Brown a M. Arch. in city planning). In addition to short-term appointments, Venturi has been on the architectural faculty at Yale (1966-1970) and Scott Brown at U.C.L.A. (1965-1968).

Venturi's greatest impact on architecture has been through his writings, notably *Complexity and Contradiction in Architecture* (Museum of Modern Art, N.Y., 1967). The recent book *Learning from Las Vegas* by Venturi, Scott Brown and Izenour

(MIT Press, 1972) is based on studies carried out with Yale students.

Werner Seligmann

Shortly after graduating from Cornell in 1955, Werner Seligmann returned to his native Germany for graduate work at the Hochschule in Braunschweig. Back in Europe, he could now see at first hand those prototypical housing schemes that began appearing in the twenties, but whose influence has only recently come to this country through such schemes as his own Ithaca, N.Y. project (p. 64).

He went to as many of the early projects as he could—to those of Gropius and Ernst May in Germany, to Oud's in Holland, to Corbu's in France and Switzerland, and many others. "I knew them well from books," he says, "but what really impressed me when I saw them was that they were all overgrown, green and beautiful." And if Seligmann has his way, his Ithaca project will be that way too. To help it along, he's had over 2000 pine, spruce and flowering trees planted on the sloping site, along with wild raspberries, blackberries and sumac.

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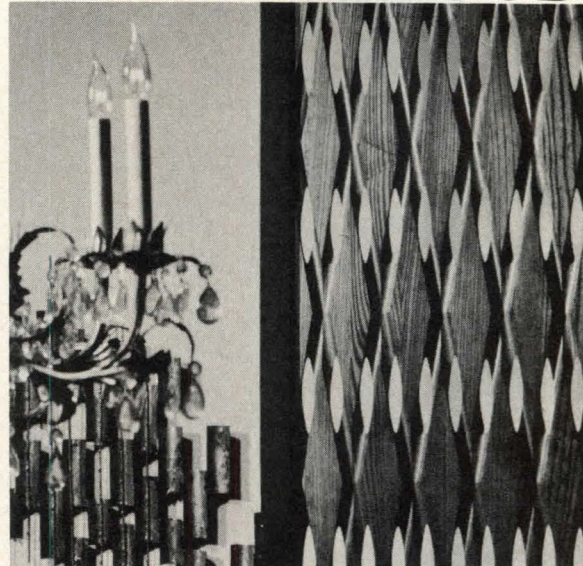
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Views

Exciting creation

The most exciting creation in your January issue is the book review by Charles Moore of the book *Schindler* by David Gebhard. I like it *even* better than the review I wrote of the same book in the September *AIA Journal*. His review makes the image of himself into that of a human being. I feel his viewpoint is particularly healthy for the profession coming from someone of his reputation. His phrase that Schindler "kept responding all the while" is beautiful. Thanks and keep responding!

John Blanton, AIA
Manhattan Beach, Calif.

Between skepticism and cynicism

I can remember, not so long ago, when, as a student of architecture, hours were spent over state university cups of murky coffee, and discussions were ranging through the equally murky philosophies of architecture and aesthetics. Probably more than once, the major issue was whether architecture reflected a society or a society could reflect its architecture.

Today my personal philosophy has come to ranging between healthy skepticism and unabashed cynicism on this single issue. I point this out after reading your Editorial (Feb. 1973) which lists four basic principles, three of which are in great sympathy with current societal and (yes, folks) political attitudes. The fourth, understandably, is design. Then, after some lengthy discussion of the architect's role, the designs presented are touted for their qualities as they relate to the principles of *Progressive Architecture*.

Well, if your publication stands for environmental and social concerns, why aren't the designs presented representative of the many genuine efforts by architects, en-

gineers and planners to provide housing for the poor? Why are *all* the buildings shown the result of corporate or institutional enterprise? Why, also, is your article "Washington report" so glowing in its reports of presidential reorganization, when it is becoming obvious that the small struggling firm is going to bite the dust, as many other small businesses will, if the broader issues of national priorities (where the money will be spent) aren't brought into focus?

I think *Progressive Architecture* is a fine publication within its real area of concern, but this area of concern does not come off as having much social conscience, environmental awareness or a political clout. What it does come off as is an institution in itself, which provides the average architect a great chance to see what you can design for the big money and entrenched power holders, and little indication of how to move, bend, redirect or in any way alter their present day policies or resources toward your stated principles.

So, while I have always read *Progressive Architecture* (and always will), for those wonderful glossy full-page pictures and captions, I think you ought to tell it like it is. *Progressive Architecture* prints good-looking stuff, and provides a valuable service with that. Thanks. And thanks for the opportunity to sound off.
Kenneth L. Austin
Bryan, Tex.

Attention: advertisers

Being a woman trying to obtain an education in a field largely dominated by men, I am rather concerned by the attitude that only men can be professional enough to succeed. Your advertisements are remarkably illustrative of my point. Is it really necessary to show half-nude women to sell such unrelated products as faucets, swimming pools and ceramic tiles? Any worthwhile product should be able to stand on its own merits. Somehow, Knoll does not find it necessary; they let their products display themselves. Someday you will wake up and realize our full worth to the profession. Maybe then we can receive the respect due to us; and *Progressive Architecture* will stop printing such farces of advertisements.

Ms. Kerry L. Dietz
Kent, Ohio

Attention: ex-GIs

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Gerd Holborn
London

In praise of a bridge designer

Since the material in "The architecture of bridges" (P/A, Mar.) is to appear in the book, *New Directions in Bridge Building* by William Zuk and Wallace McKeel, it is most important to recognize and give due credit to the pertinent contributions of Professor Robert G. LeRicolais at the University of Pennsylvania.

Having worked with him, I join many other architects who are inspired by his search for basic principles of the nature of structure, and his sensitive understanding of experiment and experience. His ideas concerning bridges of great span with minimum supports offer a great vista for practical realization.

In fact, Zuk's pronouncement that the idea of elevated bridges for transportation channels is "novel and innovative" is nothing new—Professor LeRicolais developed and designed such structures some time ago. For example, the Aerial Mass Transit Systems (patented both in France and in the U.S.) known as SKYRAIL, is an application of such new principles for bridges, capable of considerably more economy than conventional suspended bridges. The idea that transportation channels may generate new city form was also discussed by him in "The Trihex: New Pattern for Urban Space" (P/A, Feb. 1968).

Alan Grant's scheme for the Messina Bridge was shown by Zuk. LeRicolais' project for the same competition was comparable, done without knowledge of Grant's proposal.
Alexander Messinger
Philadelphia

The author replies

I, too, highly respect LeRicolais' achievements and assure you that a portion of my forthcoming book is devoted to his works. He and I have been in communication on the matter for some time.
William Zuk
The University of Virginia
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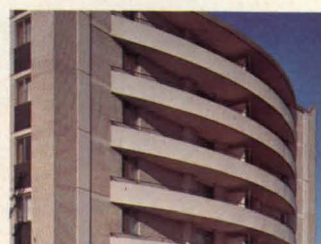
Drive-in restaurant concept, W. C. Muechow Associates, Denver, Colorado.



Swope Park Puppet Theater, Kansas City, Missouri, Morton Rolsky, Architect.



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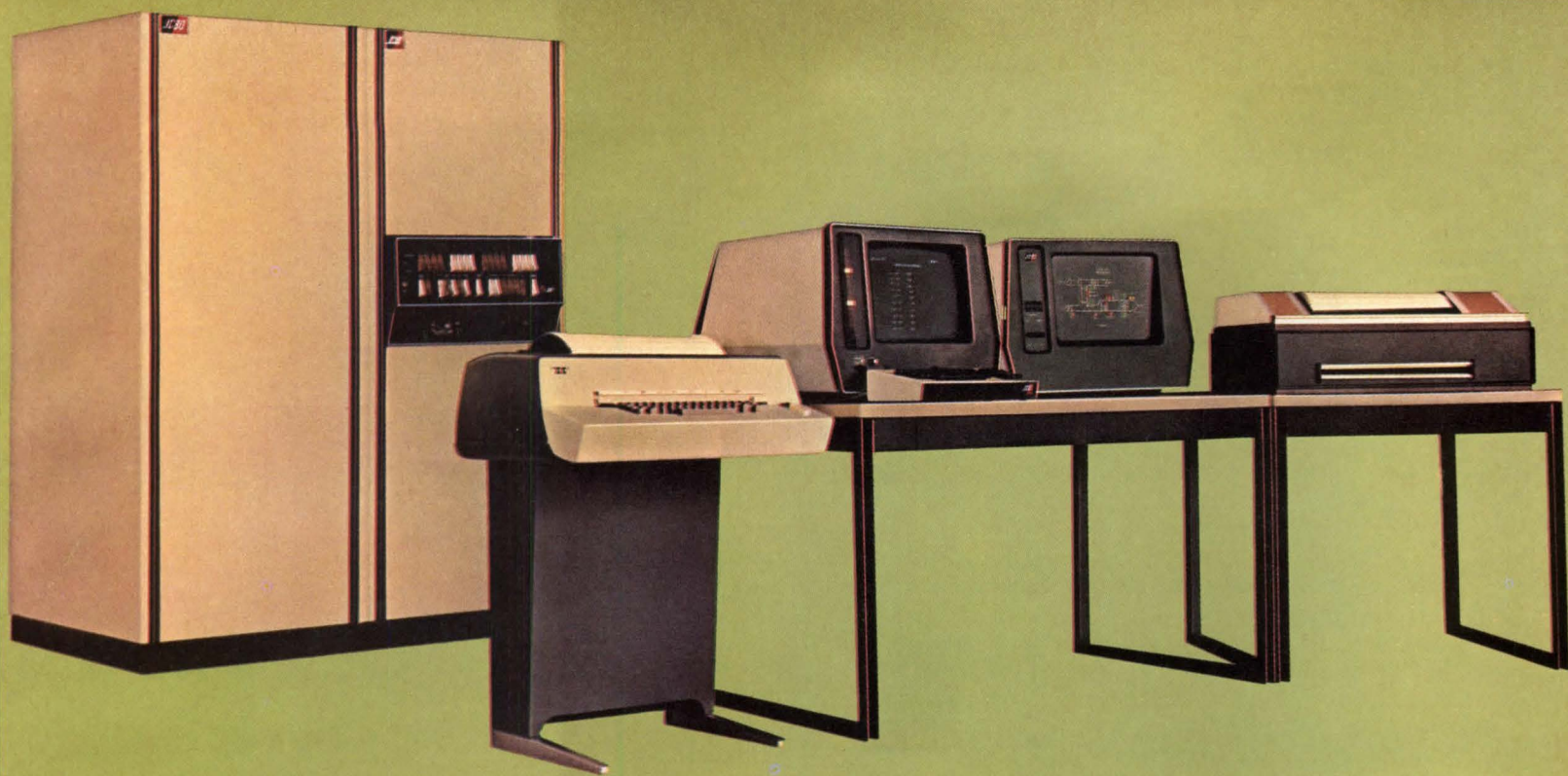
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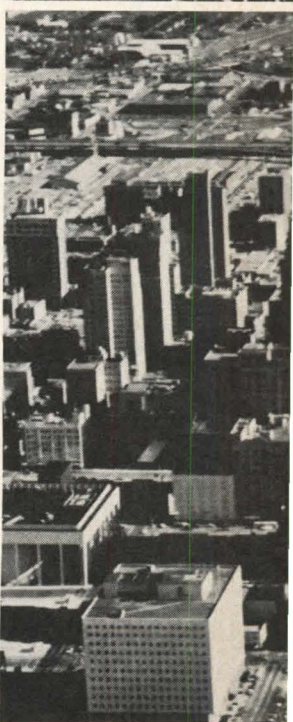
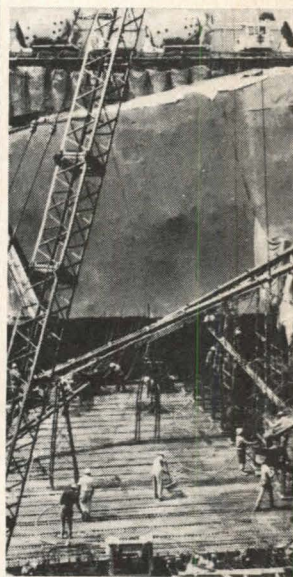
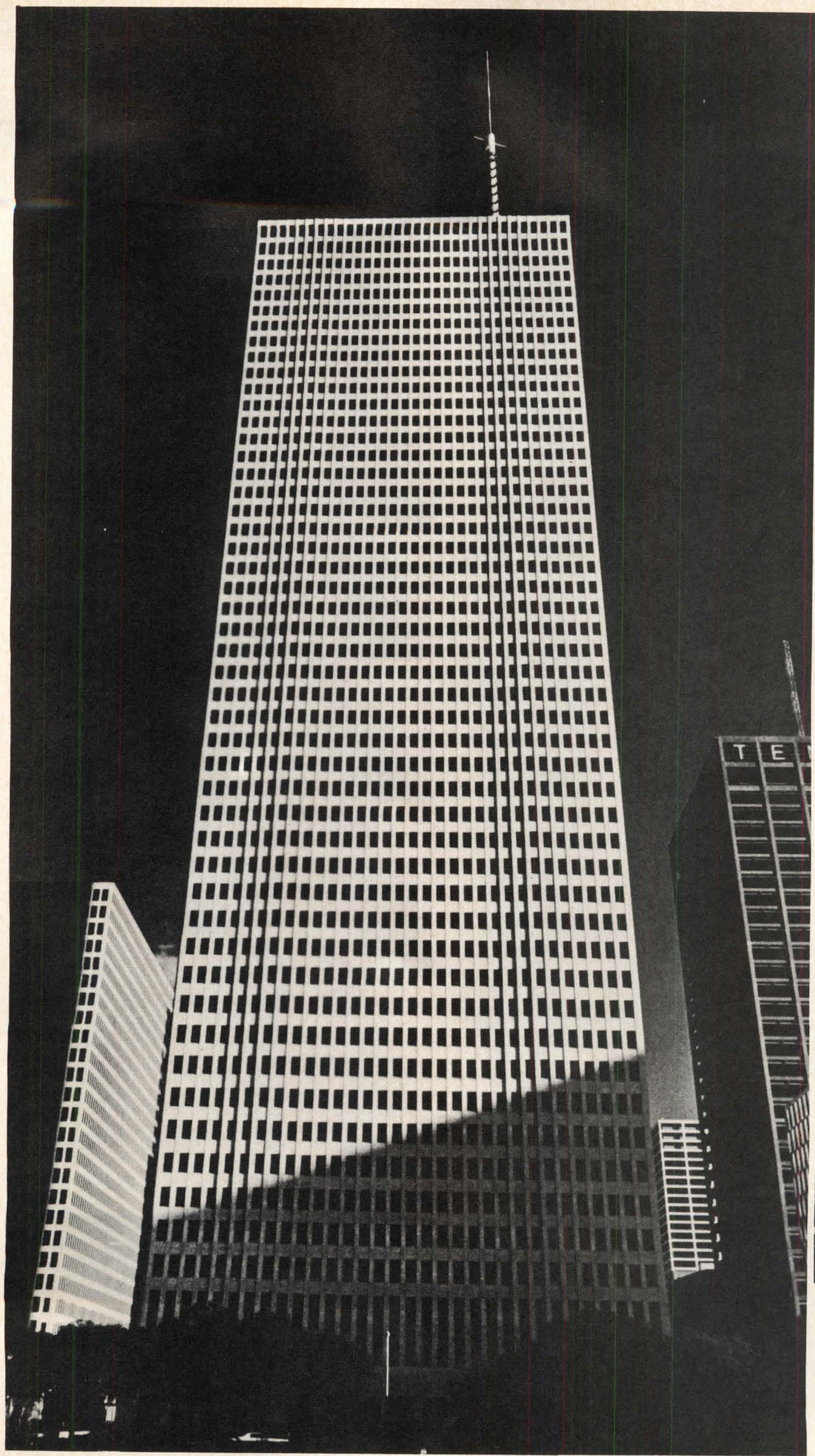


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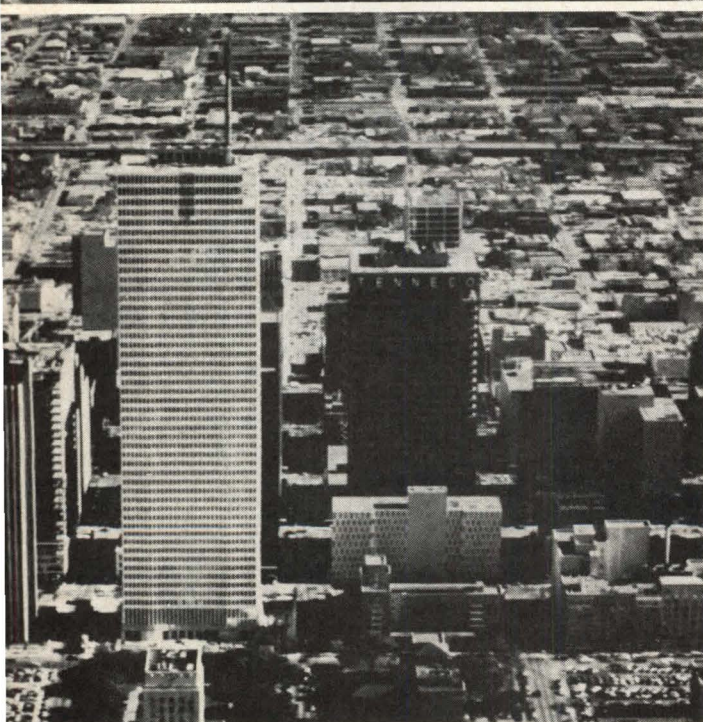
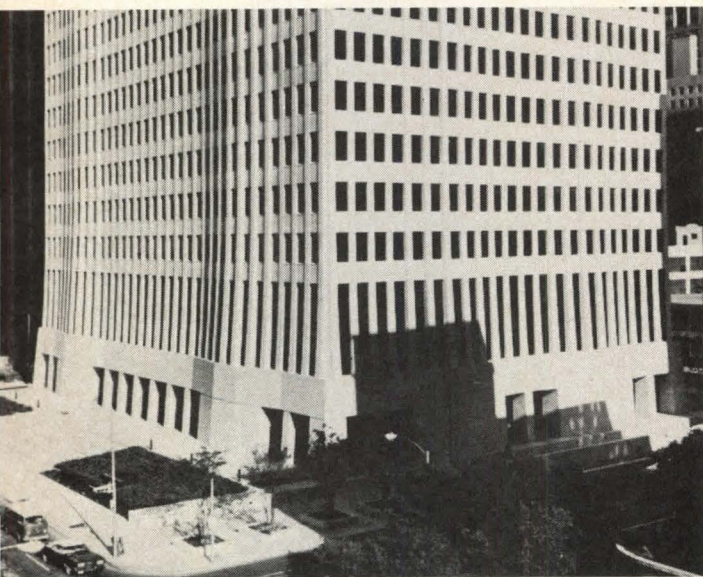


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*California State Fire Marshal's "Project Corridor" test data, 1972; available on request.

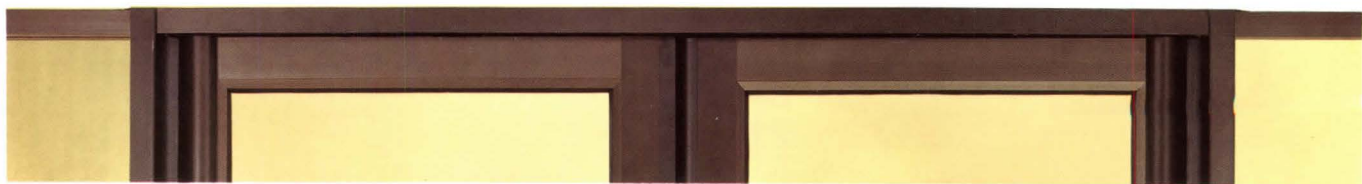
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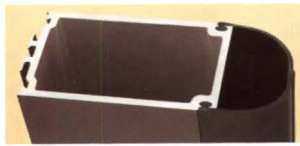
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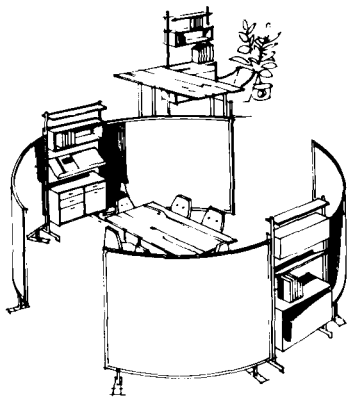


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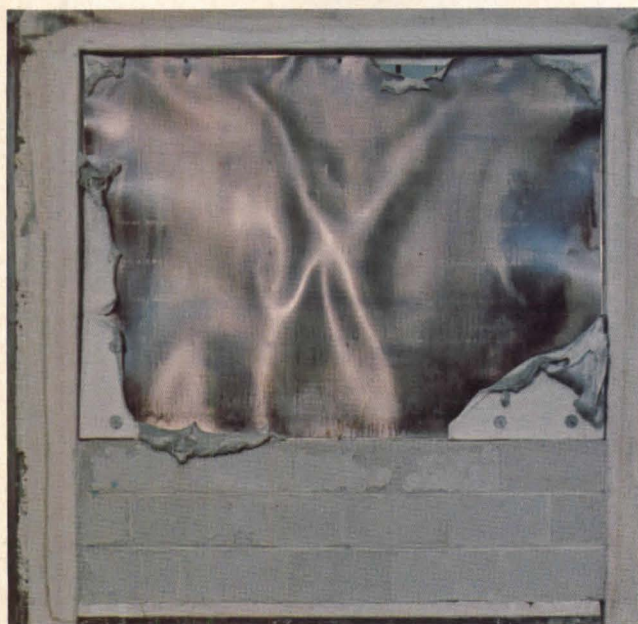


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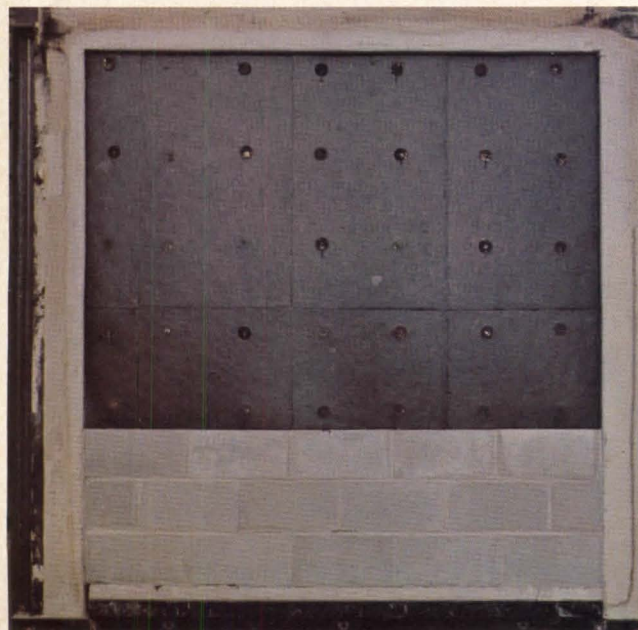


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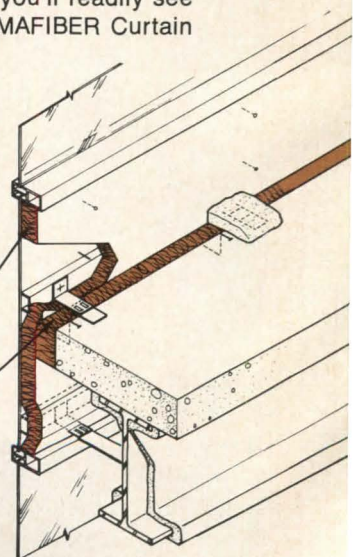
THERMAFIBER Safing Insulation also proved its superior fire-resistance in a separate 3-hour fire test. Furnace temperatures conformed to the ASTM E119 time-temperature curve. Results showed a melt point of over 2000°F. The Fire Hazard Classification for unfaced curtain wall and safing, tested in accordance with ASTM E84, is Flame Spread 15, Fuel Contributed 0, Smoke Developed 0 (foil-faced: 25-0-0).

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Progressive Architecture

News report



McPhee College Union



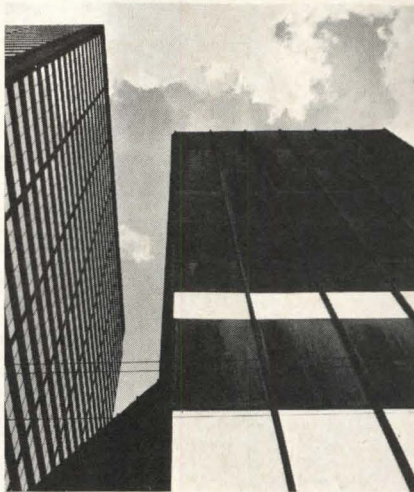
Fountain Square Plaza

AIA announces Honor Awards

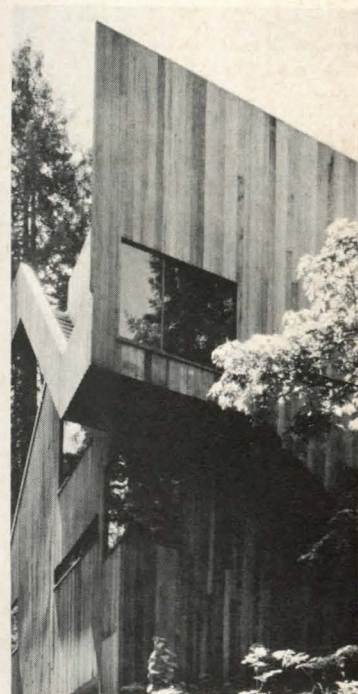
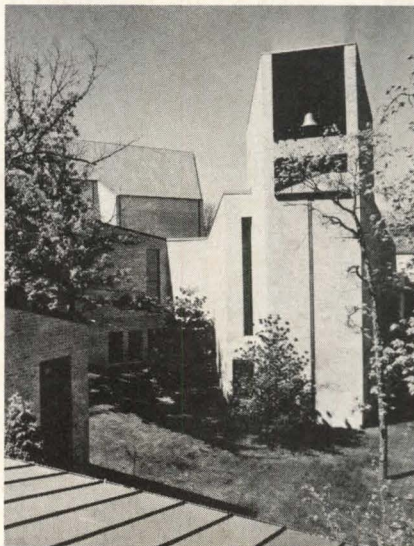
A dozen architectural firms will receive Honor Awards at the AIA convention this month, for projects ranging from a monastery to private homes to a corporate headquarters. Winners are John Andrews/Anderson/Baldwin (George Gund Hall, Harvard Graduate School of Design, Cambridge, Mass.); Marcel Breuer and Herbert Beckhard (St. Francis de Sales Church, Muskegon, Mich.); Edward A. Cuetara (Woolner residence, Chilmark, Mass.); Esherick Homsey Dodge & Davis (Julian A. McPhee College Union, California Polytechnic State University, San Luis Obispo); Ronald Gourley/Carleton R. Richmond, Jr. (Faculty Housing, Radcliffe College, Cambridge, Mass.); William Kessler & Associates, Inc. (Public Housing for the Elderly, Wayne, Mich.); Loeb Schlossman Bennett & Dart (St. Procopius Abbey, Lisle, Ill.); McCue Boone Tomsick (Djerassi vacation residence, San Mateo County, Calif.); MLTW/Moore Turnbull (beach house, Santa Cruz, Calif.); RTKL Associates, Inc. (Fountain Square Plaza, Cincinnati, Ohio); Skidmore, Owings & Merrill (American Can Co., Greenwich, Conn.); Harry Weese & Associates (Time & Life Building, Chicago).

Trendspotters might be intrigued by the thought that some of the projects honored this year are a few years old—the Kessler housing for example, or the Breuer church—and may well have been passed up by previous juries, as might have been the faculty housing at Radcliffe or Fountain Square, were they not relatively new projects. Perhaps this marks an upswing for humility and expressionism.

Jury was Pietro Belluschi, Chairman, James H. Finch, William C. Lukes, David McKinley, Jr. and Gyo Obata.



Time & Life Building



Djerassi vacation house

St. Procopius Abbey

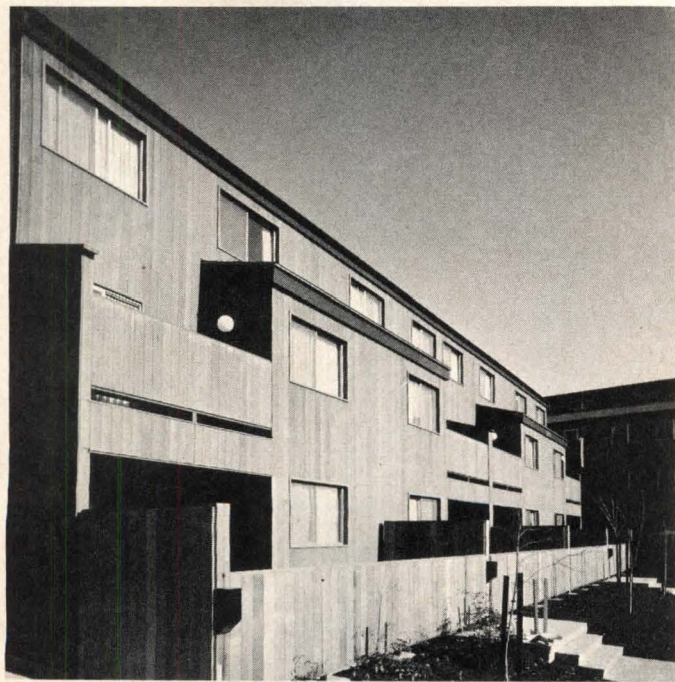
Progress report



Townhouses by Hercoform, Macon, Ga.



Boise Cascade low-rise, FCE Dillon high-rise, Sacramento



Townland System, Seattle



Shelley Systems, Jersey City

Breakthrough box score

Despite the elimination of some sites for budget reasons, despite local labor problems and other obstacles, and despite a variety of criticisms from a variety of sources, Operation Breakthrough is beginning to look like the success HUD said it would be back in May of 1969. Of 2938 units planned for the nine Breakthrough sites, 1770 are substantially completed. (P/A covered Breakthrough in detail in April 1970.)

Broken down by sites, the figures look like this: Indianapolis, 295 units planned, 226 substantially completed, 295 sold or rented; Jersey City, 486, 0, 486; Kalamazoo, 245, 245, 245; Macon, Ga., 287, 270, 287; Memphis, 518, 317, 518; Sacramento, 497, 379, 261; St. Louis, 464, 161, 464; Seattle, 58, 58, 58; King County, Wash., 178, 124, 40.

Even a quick look at those figures turns up a couple of questions. Two sites, Jersey City and St. Louis, do indeed seem to be lagging behind on completions; in fact, they won't be finished this year. They are, according to HUD, the two sites where construction has been the most difficult: fairly dense urban sites and plagued, in the case of Jersey City, at least, by strikes and "everything else that prevents most builders from building in the city," says a HUD spokesman. In St. Louis, the low-rise units went in almost immediately; the high-rise units are taking longer.

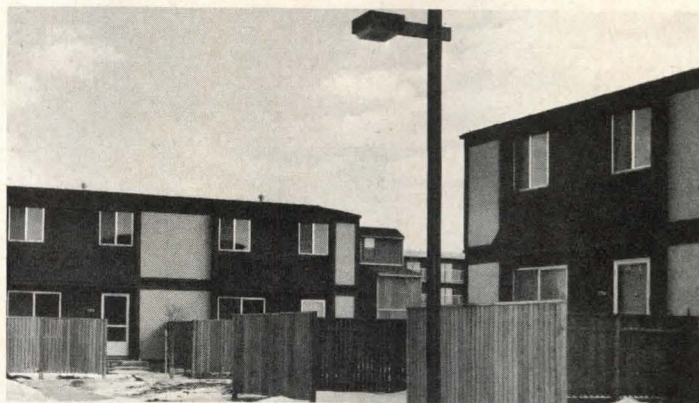
The other obvious question concerns Sacramento and King County, where the sold or rented figure seems way out of line. The reason for the difference is that units are being sold singly at those sites, and there is a wide variety of types and sizes of units. The other Breakthrough sites have been disposed of in large blocks or as whole entities; if HUD has sold the site to a developer, it shows the total number of units as sold or rented. Offsetting the slightly ghostly quality of such sold or rented figures is the fact that the big problem in Jersey City, say, is not going to be finding buyers for units; instead it will be deciding which prospects get into the project—the waiting list is that long.

HUD sees Breakthrough as a program that is changing an industry, but it will be a while before anyone can really say whether the shot in the arm industrialized housing has received is a simple vitamin or a massive dose of growth hormones. In any case, Phase II (the nine sites under construction or nearing completion) is rolling along and Phase III (the volume production part of the program) becomes the one to watch. It has been alive for the past 18 months, and since it is virtually unaffected by the current moratorium on subsidized housing funds (about 70 percent of the Phase III units had already been approved and the rest are under consideration) the projected figure of 25,000 units still looks good. This, says Breakthrough director Joseph Sherman, "indicates a continued commitment to Breakthrough and its goals." The establishment of a HUD Office of Advanced Housing Concepts, he says, is "another strong indication of this commitment." The new Office would promote innovation within the housing industry, even among firms and designers who weren't big enough for Phase II.

Some of the critics, who fault Breakthrough for not providing quantum jumps in technology, or for seeming to favor large manufacturers, may find some of their objections answered by the new Office, once it swings into operation; then again they may not. But a lot of people looking for places to live may be pretty happy.



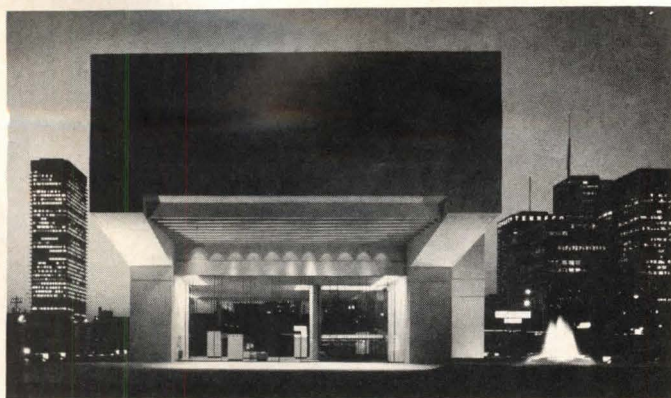
Building Systems International, Macon



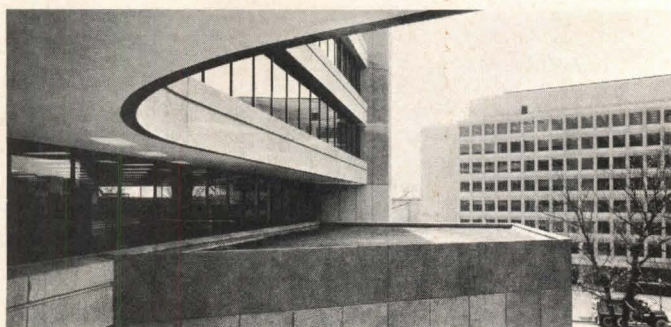
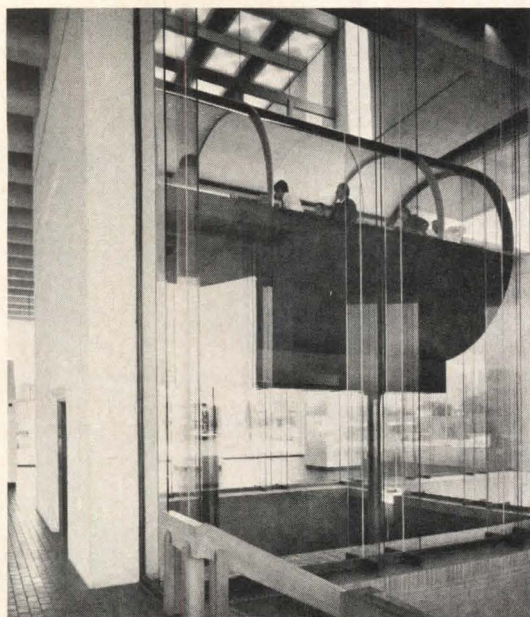
National Homes, Kalamazoo



Alcoa, Macon



Security, visibility



AIA staff settles in



Second energy conservation awards programs announced

Industrial, commercial, governmental or institutional buildings designed by architects and engineers practicing in the U.S. may be entered in the second annual energy conservation awards program sponsored by Owens-Corning Fiberglas Corp. Jury for this year's program consists of Walter A. Meisen, James E. Wheeler, Ronald E. Aspgren, Robert B. Hollister, Gifford Albright, Jack Vincent and Frank M. Lebman.

Letters indicating intentions to enter the 1973 competition must be received by June 30; entries themselves are due by August 31. Awards will be presented in the fall.

Further information and detailed entry requirements are available from Energy Conservation Awards Program, Architectural Products Division, Owens-Corning Fiberglas Corp., Fiberglas Tower, Toledo, Ohio 43659.

Houston Energy Control Center; security, visibility

When the Houston Lighting and Power Co. planned its new Energy Control Center they decided to make the building a showcase for advanced computer operations and the complex controls needed to generate and transmit electricity. Designed by Caudill Rowlett Scott, the building includes an elevator that is a gallery, or a gallery that is an elevator. Either way, it contains seats for 28 people, who can see, through its glass walls, the way the power company does its job.

Security is as important as public information, however, so orientation and reception areas are kept on the lower and ground levels of the building, operational spaces on the two upper floors. Besides the ride on the hydraulic elevator, visitors get to see computer controls and monitoring stations.

Students, design, finance, build and sell house

Thirteen students of architecture at Ball State University in Muncie, Ind. are involved in a project that offers a little something for everybody. They are designing and building a house, which is not too unusual for architecture students, but they have also arranged the financing and real estate details; and when the house is sold, the proceeds will go into a scholarship fund, benefiting future architecture students.

Ground was broken in March, but a lot of the work is being done inside at the University's College of Architecture and Planning. The modular house, says J. Robert Taylor, associate professor of architecture and supervisor of the project, is like "working on a giant, three dimensional puzzle." The house, of wood frame construction, will have 1000 sq ft of space, and will be completed in about six weeks. Once all the modular components have been assembled, actual erection time will be about four hours. The project was made possible by a \$2000 grant and a \$10,800 construction loan from a local savings and loan association.

AIA back in business at same old corner

If bringing order out of chaos is one of the things architects are supposed to be good at, the AIA had plenty of practice in mid-March. The occasion was the move from the temporary offices on Massachusetts Ave. back to the same corner on which the Institute has been located since 1902, and the staff was unwrapping chairs and opening cartons while carrying on business as usual. The construction workers were still at their jobs, too: inscriptions were being carved on moving day, and carpet was still being laid a week or so later.

[continued on page 28]

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Designed by The Architects Collaborative, the new headquarters frames and preserves the Octagon House, now a museum and historic site. Three of the seven floors will be used by AIA; the rest will be leased.

Washington report

The West Front and other battles

The valid aesthetic and economic reasons that have prompted architects to oppose extension of the West Front of the U.S. Capitol (the side facing downtown Washington) are unfortunately not understood by the general press, some of the "trade" press and the general public—or by many members of Congress. Hence, AIA's years-long battle against the idea, and against the very powerful "Committee on Extension of the Capitol" (consisting of the Vice President, Speaker of the House and majority and minority leaders of both Houses of Congress) is often put down to a "history-buff, save-the-old-stones" sort of motivation.

In late March and early April, AIA's chieftains, led by President Scott Ferebee, opened a new offensive, explaining the reasons for the opposition and offering an alternative: if added space is needed, put it underground and out of sight, at considerably less cost—maybe 25 percent less than an above-ground building or addition; restore and strengthen the existing structure.

The last point could make a lot of sense to a Congress very mindful of economic matters—even if not convinced on aesthetic grounds. So the architects have set themselves to explain the aesthetics:

Plans for the extension of the West Front (the protruding section of the building underneath the great dome, between the House and Senate wings at either end) date back many years, but most notably to the late Architect of the Capitol J. George Stewart, who recommended the idea most forcefully on grounds that (a) the 144-year-old sandstone walls were crumbling and dangerous; (b) Congress needed more space both for its own purposes and for further accommodations for the hordes of visitors—a total of 4½ acres more space, to be exact. Much of AIA's opposition was ascribed, earlier, to the fact that Stewart was not an architect, despite his title (he had been a construction contractor, a Congressman, held a civil engineering degree). Capitol Architect since 1971, however, has been George White—a Fellow of AIA and a former vice president of that organization.

The real objection is centered elsewhere: plans for the extension include filling in part of the deep indentations between the center and the two wings that give the building a sort of "wasp-waist" appearance from above and accentuate the two-house nature of the government itself. These fill-ins would add greatly to the mass of the structure, and extension outward of the center section (the West Front itself) would also truncate the view of the massive cast-iron dome from the west side, which is sharply lower than the elevation on which the building stands.

In short, say the architects, the symmetry, integrity and

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symbolism of the building would be greatly impaired, if not destroyed.

A better answer (without debating the real need for added working and recreational space) would be to sink a new complex under the parklike space on the south side of the building (nearest House office buildings), connecting it by existing subways and pedestrian tunnels to both office complexes and the Capitol itself, and keeping it entirely out of sight.

Costs, because of lack of need for exterior facings (an extremely expensive item in a monumental one-of-a-kind building of this type), windows and other details, greater ease of heating and air conditioning, etc., should be well under the \$58 million now estimated for the originally planned extension (about \$360 per sq ft of usable space, according to present estimates).

The idea, said AIA's First Vice President Archibald C. Rogers, is one of great humility. "Imagine architects proposing a building that will never be seen," he added.

One thing more is needed desperately, said AIA: a comprehensive, overall plan for further development of the Capitol Hill Complex, to insure that any further work meshes with what now exists, both in appearance, and in such service matters as roads, tunnels, walkways and the like that may be needed.

The renewed controversy over the Capitol provided a sort of clear point in the confused infighting between Congress and the White House (and within Congress) over the equally long-contested point of which branch of the federal establishment is really dominant. That debate (which started with President Washington) is the real fire beneath the vast clouds of

smoke coming out of debates on such measures as highway programs; clean stream and clean air programs; proposed cutbacks and reorganization of much of the government's anti-poverty efforts; the crisis over energy, and much else. Lawmakers are fighting for political points, important back home, as to whether highways should be built to the exclusion of rail transit, or hospital programs should be cut, or whether rural electrification and public utility construction should be continued at current rates.

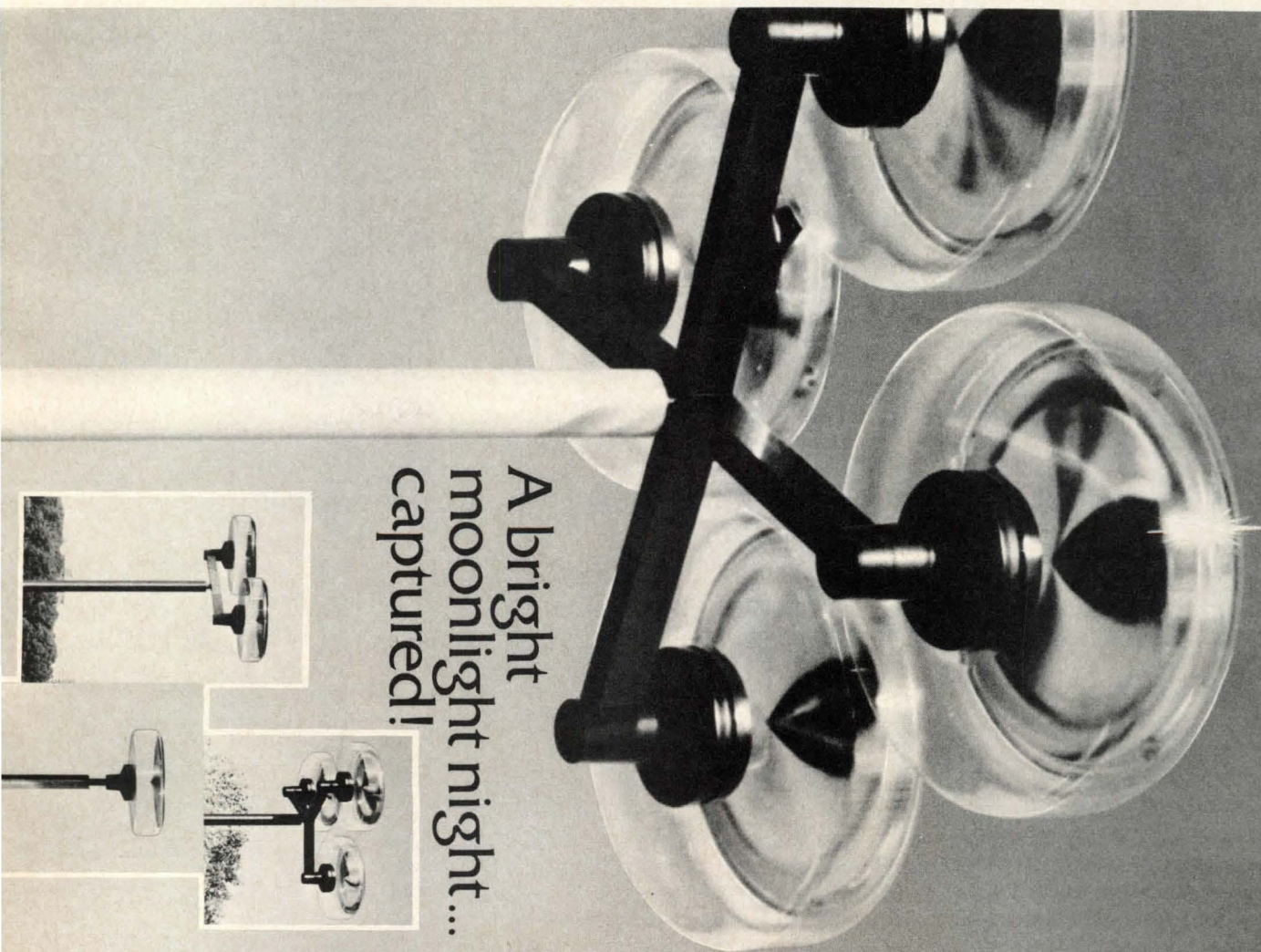
But they're really battling for supremacy: To force the President to spend something like \$12 billion in appropriated or authorized funds which he has refused to spend; and to insist that Congress, not the President, should set priorities and national goals.

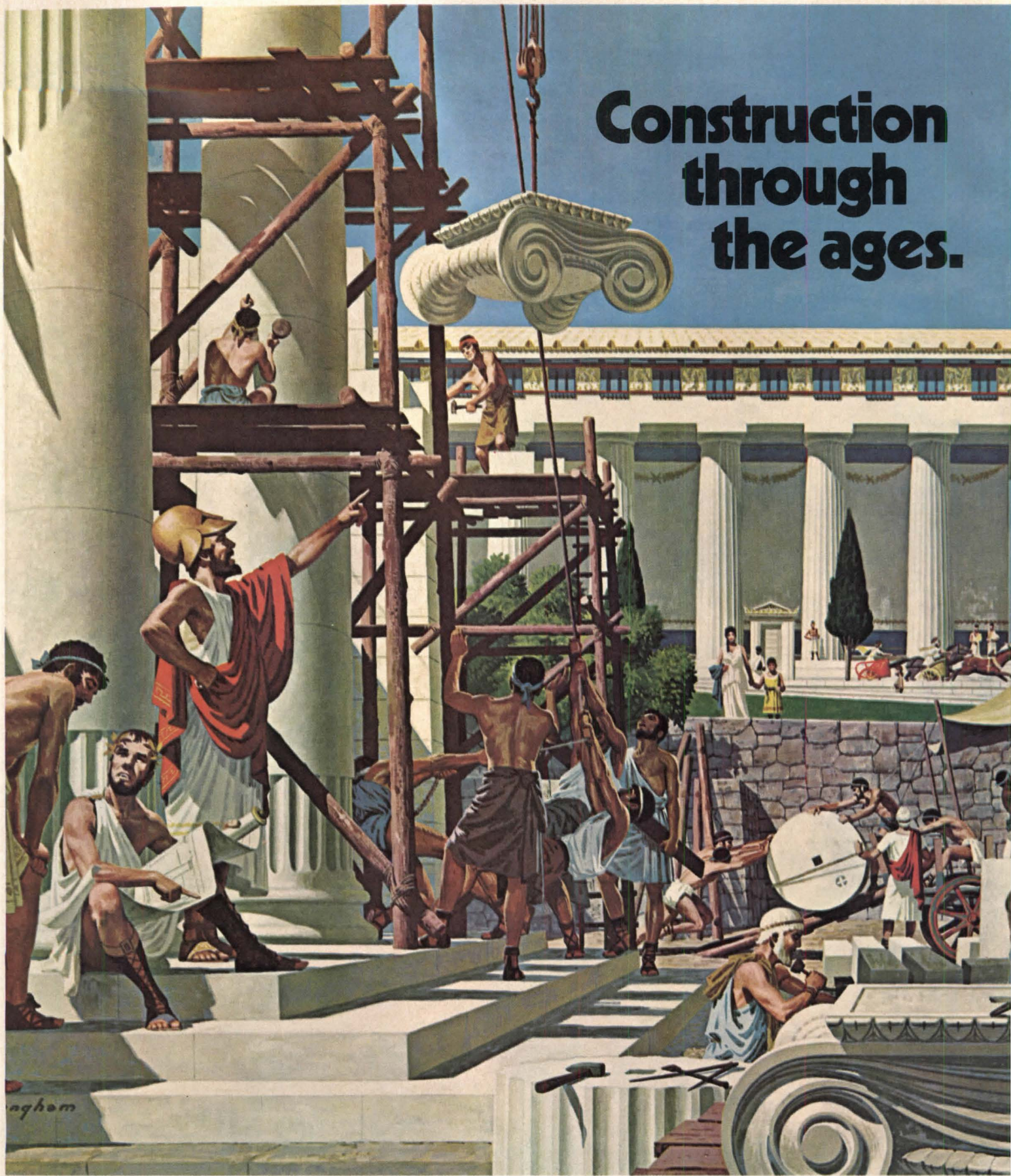
Chances are excellent that the lawmakers will lose these battles; the Executive has the very great advantage of ease of quick maneuver, as well as interpretations of Constitutional power. Such an outcome wouldn't be all bad as far as the construction industry is concerned this year: the budget message called for expenditures somewhat higher than in the past, for construction purposes. But the fight will certainly delay passage of key legislation long enough to have some effect on the industry's economics.

There were, of course, plenty of professional concerns as spring advanced. Architects and engineers, for instance, appeared before Congressional committees to suggest ways of changing over U.S. measurements to the metric system (the architects wanted a firm, no-nonsense schedule, while engineers favored a slower, more flexible approach); profes-

[continued on page 32]

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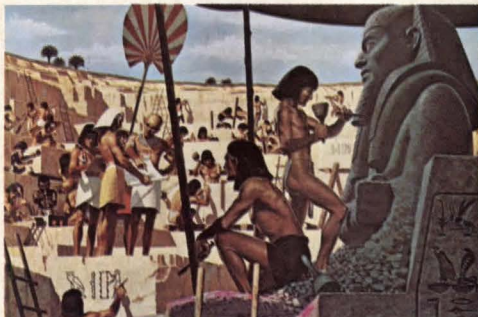
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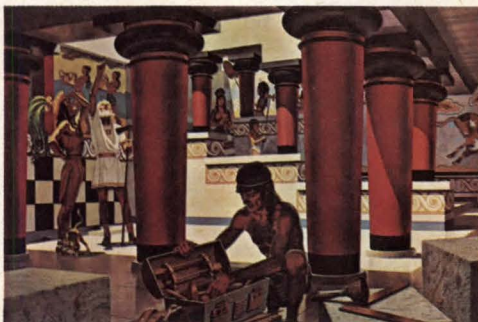
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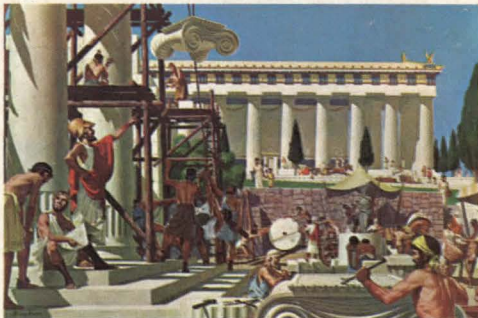
The Anatolian Plateau of Turkey — ca. 6200 B.C. A neolithic shrine at Catal Huyuk.



Tura, Egypt — ca. 2650 B.C. Stone-quarrying for the "Step Pyramid" of Zoser.



The Island of Crete — ca. 1550 B.C. The rebuilding of the Palace of Minos at Knossos.



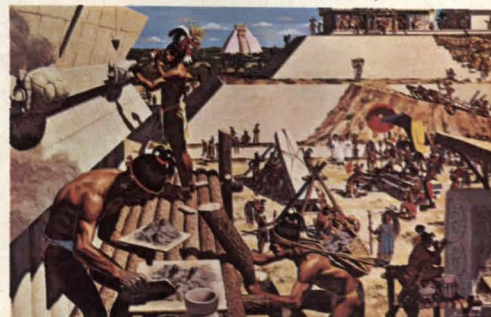
The Acropolis, Athens, Greece — 409 B.C. Construction is resumed on the Erechtheum.



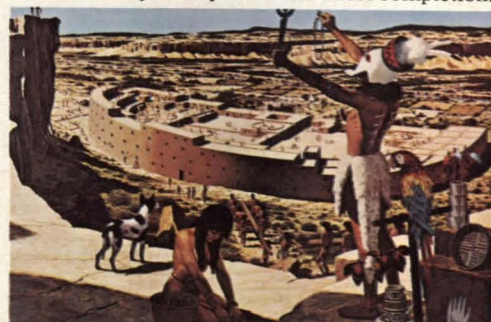
Sancta Sophia, Istanbul, Turkey—ca. 535 A.D. The classic Byzantine church nears completion.



The Ise Forest, Japan — A.D. 689. The first rebuilding of the Naiku (Inner Shrine) at Ise.



Yucatan, Mexico—ca. A.D. 987. The House of Turtles in the Mayan City of Uxmal nears completion.



Chaco Canyon, New Mexico, U.S.A. — ca. A.D. 1067. The building of Pueblo Bonito.



Cambodia — ca. A.D. 1200. The construction of the Bayon in the Khmer city of Angkor Thom.



The Andes of Peru — ca. A.D. 1470. The rebel Ollantay builds his fortress-city, Ollantaytambo.

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sionals were "challenged" by GSA Administrator Arthur Sampson to meet demands for "better, quicker, more economical" buildings; bills were introduced in Congress to strengthen the "right of control" by permitting regular court challenges to union work rules or local codes that restrict use of new materials or techniques (S.1188), to modify the effect of Occupational Safety legislation by reducing the size of firms affected to change labor laws and to partially unscramble the nightmarish maze of requirements for "environmental impact statements" under provisions of the National Environmental Protection Act (HR 5974); National Academy of Sciences announced a program of reorganization of its working arm the National Science Foundation by establishing three "Assemblies" and five "Commissions" to oversee broad areas, including the natural and social sciences.

And lumber got suddenly prominent in Washington thinking: price rises of as much as 56 percent (in softwoods) within less than two years prompted a couple of bills to limit or prohibit export of logs, and prompted the Cost of Living Council to set up hearings in April, looking to possible reimposition of controls on the entire lumber industry.

[E.E. Halmos]

Awards

Four architectural firms were honored in the 1973 Plywood Design Awards program sponsored by the American Plywood Association.

First award in the Residential/Single Family category went to Huygens & Tappe, Inc.; first award in Residential/Multi-family went to H. Ronald Walker and John D. Bloodgood P.C. (The park at Southern Hills, Des Moines, Iowa). First award in Commercial/Institutional was won by Richard L. Dorman (Placerita Canyon Nature Study Center) and first award in Special Awards went to J.E. McCormack of Locatell/Deckbar/McCormack, Inc. (The Little Red Barn).

Six firms won awards in the Michigan Society of Architects annual Honor Awards competition. They are: Wm Kessler & Associates (vacation home, Harbor Springs, Mich.); Sol King and Albert Kahn Associates (Washington Post Building, Washington, D.C.); Smith Hinchman & Grylls Associates, Inc. (S.S. Kresge Co. International Headquarters, Troy, Mich.); Frederick Stickel & Associates (First Church of Christ, Scientist, Port Huron, Mich.); Rossen/Newman Associates (Pine Knob Music Theater, Independence Township, Mich.); and Daverman Associates, Inc. (Kent Skills Center, Grand Rapids, Mich.).

Personalities

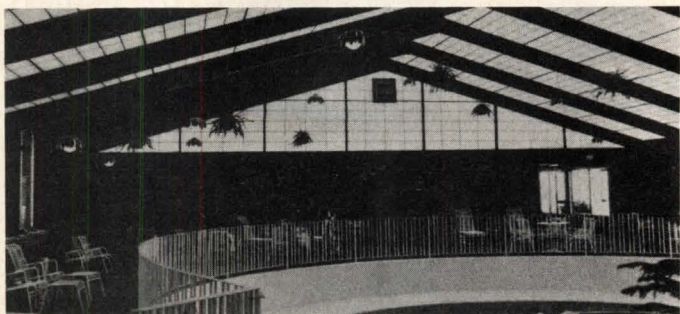
Walter J. Richardson, AIA, Costa Mesa, Calif., has been named to the National Housing Committee of the American Institute of Architects.

David C. Thimman, AIA has been elected president of the Santa Clara Valley Chapter of the American Institute of Architects.

Robert A.M. Stern, AIA has been elected president of the Architectural League of New York.

Charles H. Burnette, AIA has been appointed dean of the [continued on page 34]

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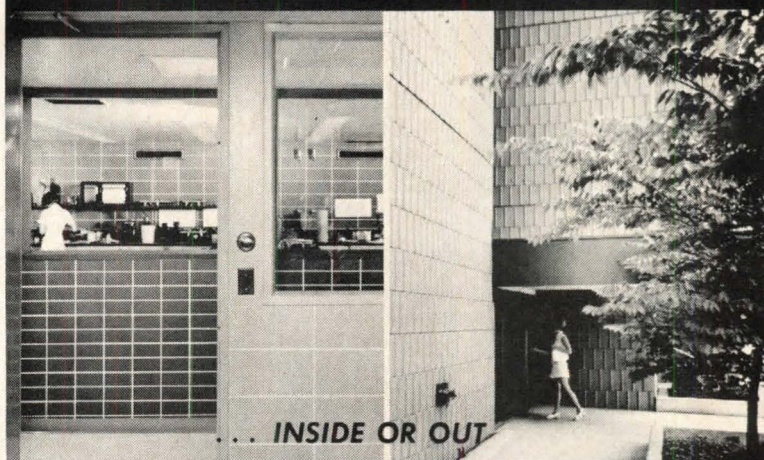
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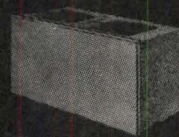
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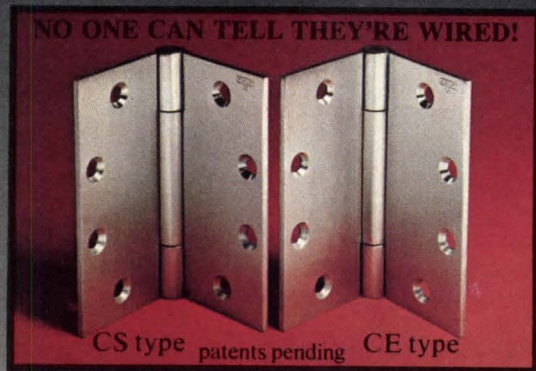
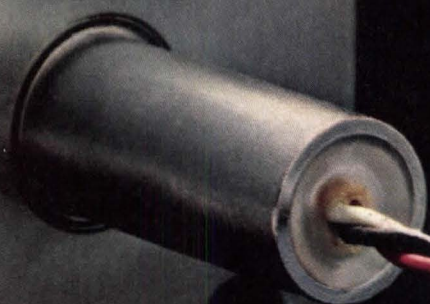
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School of Architecture at the University of Texas.

William J. Mitchell has been named head of the Architecture/Urban Design Program at the University of California, Los Angeles.

Raymond Reed has been appointed dean of the College of Architecture and Environmental Design at Texas A&M University, College Station, Tex.

Jacques C. Brownson has been named professor-adjunct on the volunteer faculty of the College of Environmental Design of the University of Colorado at Denver.

Frank L. Hope, Sr., FAIA of San Diego has been reappointed to the California State Board of Architectural Examiners in the Department of Consumer Affairs.

Herbert Cuevas, AIA of San Jose, Calif. has been elected chairman of the San Jose Board of Appeals on Public Nuisances.

Richard W. Jones, FNSID, Des Moines, Iowa, has been elected president of the National Society of Interior Designers. **Roslyn W. Mallin, FNSID**, Chicago, was elected vice president, **Lora Alpert**, Los Angeles, was named secretary and **Boyd Loendorf**, Mercer Island, Wash., was appointed treasurer.

Calendar

Through May 12. Exhibit of the Italian Art & Landscape Foundation Inc., New Orleans Museum of Art.

Through May 27. Philadelphia Architecture 1: Frank Furness exhibit, Philadelphia Museum of Art.

Through June 17. "Moshe Safdie: For Everyone a Garden" ex-

hibition, San Francisco Museum of Art.

Through June 30. Furniture by Charles Eames exhibition, the Museum of Modern Art, New York City.

May 3-4. Ninth annual meeting of the National Academy of Engineering, Washington, D.C.

May 5-8. Annual meeting of the National Architectural Secretaries Association, Hyatt on Union Square, San Francisco.

May 7-9. International symposium on urban housing, Wayne State University, Detroit, Mich.

May 7-10. AIA national convention and exposition, Brooks Hall, San Francisco (to be reconvened in Honolulu May 11-15).

May 7-10. Thirty-first annual technical conference of the Society of Plastics Engineers, Queen Elizabeth Hotel, Montreal.

May 7-13. Conference-workshop on "Buildings in the North," Université de Montréal.

May 10-11. Twenty-fifth annual national engineering conference sponsored by the American Institute of Steel Construction, Bellevue-Stratford Hotel, Philadelphia.

May 11-20. Soviet American conference on architecture and urban design sponsored by the American Institute of Architects, Moscow and Leningrad.

May 14-15. Urban lighting conference "Light for the City," General Electric Lighting Institute, Nela Park, Cleveland.

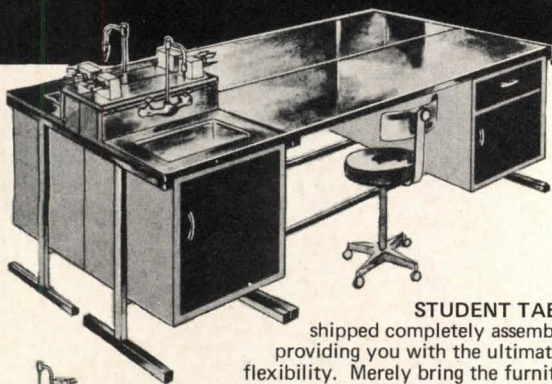
May 21-23. International Security Conference, Conrad Hilton Hotel, Chicago.

May 21-23. Conference on "Environmental Assessments of Transportation Facilities" sponsored by the Illinois chapter of the American Society of Civil Engineers, Regency Hotel, Chicago.

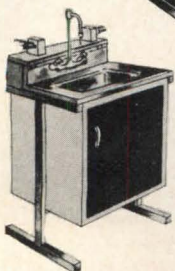
May 22-24. National technical conference on "Air Structures in [continued on page 38]



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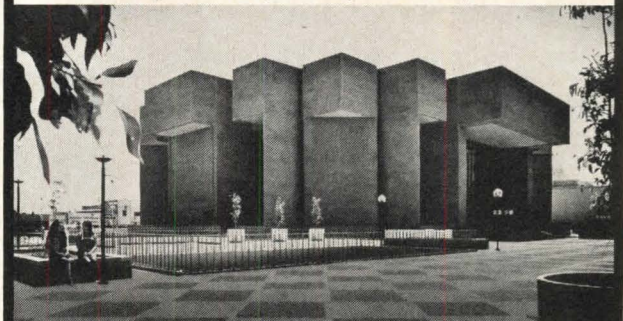
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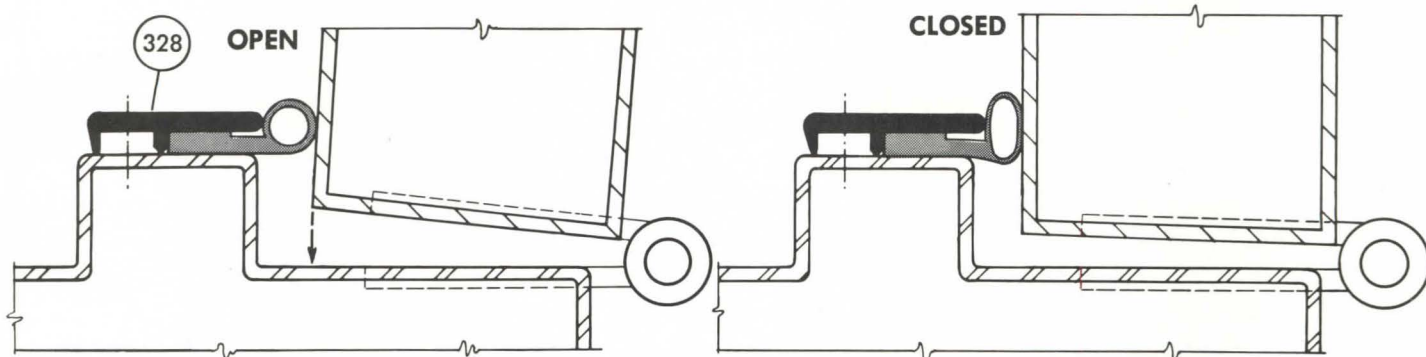
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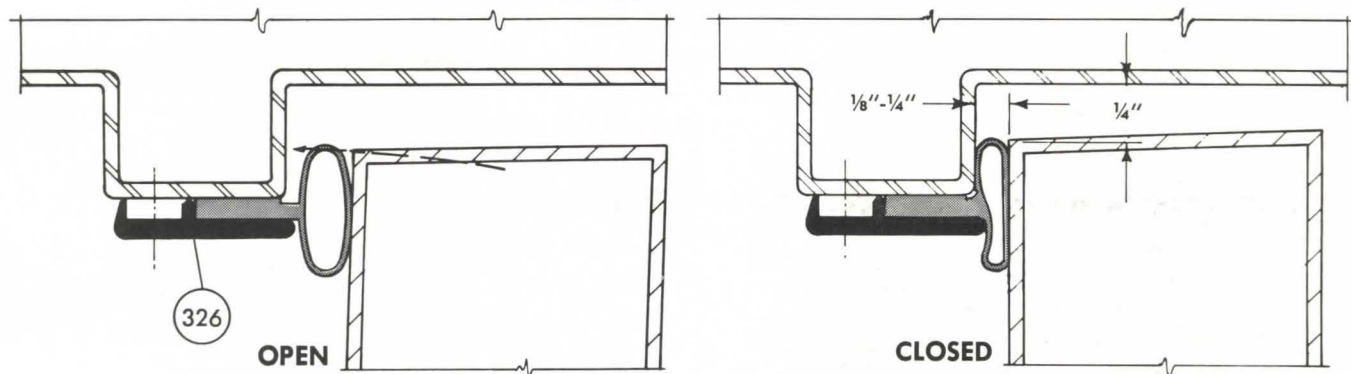
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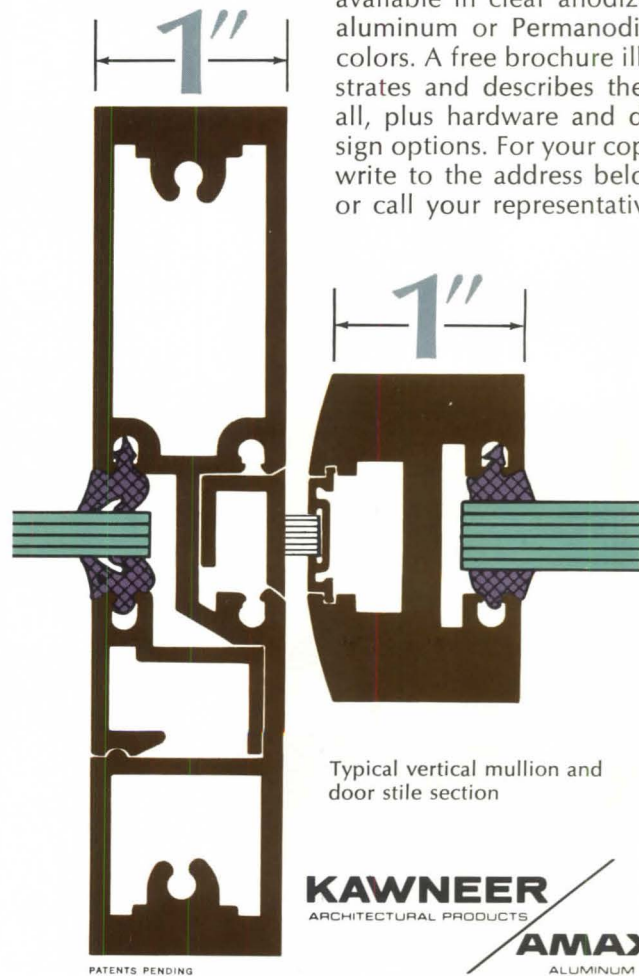
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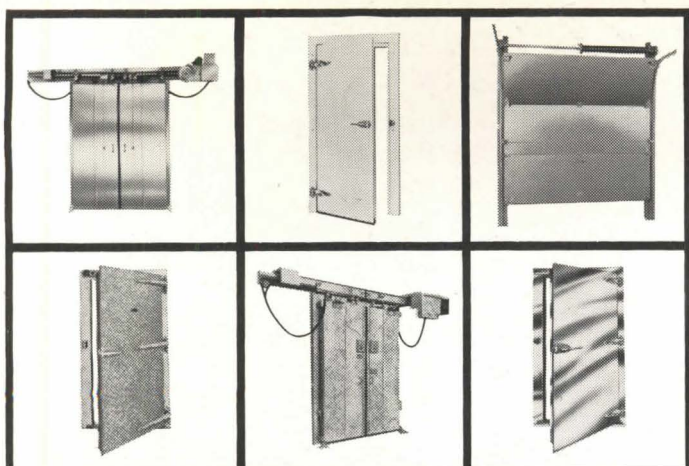
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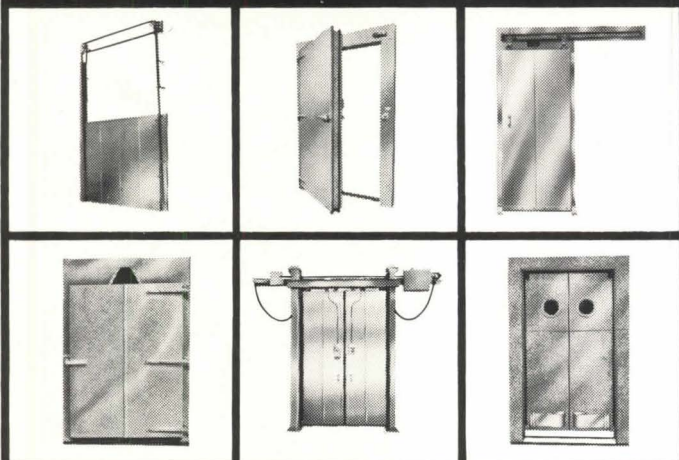


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News report continued from page 34

Education" sponsored by the Building Research Institute of the Building Research Advisory Board, National Academy of Sciences in cooperation with Educational Facilities Laboratories, Inc. and Antioch College, Columbia, Md.

May 25–29. Conference of the National Society of Interior Designers, Hilton Hawaiian Village, Honolulu.

May 30–June 1. National conference on revitalization of the cities sponsored by the National Urban Coalition, Sheraton Park Hotel, Washington, D.C.

June 1–Sept. 10. "The Arts and Crafts Movement in America 1876–1916," Renwick Gallery of the Smithsonian Institution, Washington, D.C.

June 2–30. Exhibit of the Italian Art & Landscape Foundation Inc., High Museum of Art, Atlanta, Ga.

June 4–6. National Interfaith Conference on Religion and Architecture, Minneapolis, Minn.

June 5–8. Tenth anniversary conference of the Building Science Forum of Australia, "Building for People," Wentworth Hotel, Sydney, Australia.

June 12–Aug. 28. "Streets" exhibition, the Museum of Modern Art, New York City.

June 17–22. 1973 International Design Conference in Aspen, Colo.

June 20–22. Neocon, the Merchandise Mart, Chicago.

June 25–27. Seventeenth annual convention of the Construction Specifications Institute, Sheraton Park Hotel, Washington, D.C.

June 25–29. Applied building illumination design seminar, the Pennsylvania State University, University Park, Pa.

June 28–30. Annual meeting of the National Council of Architectural Registration Boards, Regency Hyatt Hotel, Atlanta, Ga.

July 21–Aug. 18. Exhibit of the Italian Art & Landscape Foundation Inc., Phoenix Art Museum, Phoenix, Ariz.

Aug. 15–27. Annual meeting and foreign tour of the Society of Architectural Historians, Cambridge University and London.

Aug. 29–31. "The Design Activity," international conference, Polytechnic of Central London, London, England.

Fountain and plaza await approval in Detroit.

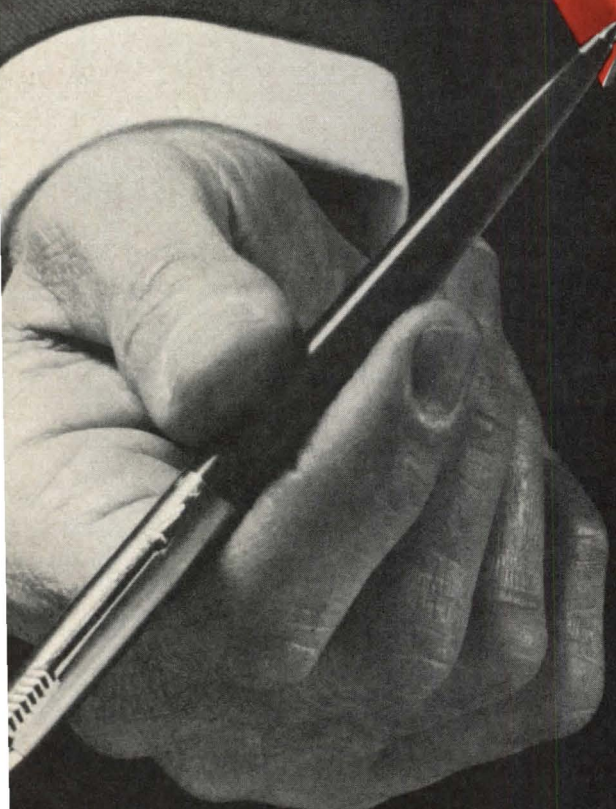
The fountain has remained essentially the same—a 30-ft-high "engine for water"—but sculptor Isamu Noguchi has made a few revisions in the plaza that will surround the Horace E. Dodge Memorial Fountain at the Detroit Civic Center (P/A, Dec. 1971, p. 30). The Civic Center Plaza now puts strong emphasis on multiple uses: there is a large circular amphitheater, a tourist center, a smaller gathering place, shops, a riverfront restaurant, a riverside promenade, and underground restrooms and service areas. The fountain has been moved closer to Woodward Ave., which satisfies the terms of an agreement with the donors.

Noguchi's firm, Noguchi Fountain & Plaza, Inc., has designed a programmed fountain that uses a complicated array of fountain and fog jets and lights that can go through at least 80 variations. Smith, Hinchman & Grylls Associates, Inc. have been signed on as local architectural, engineering and planning consultants, and design development could go ahead as soon as the plan and financing is approved by the Detroit Common Council. It's possible that the fountain and plaza could be complete and in use by 1976.

[continued on page 42]

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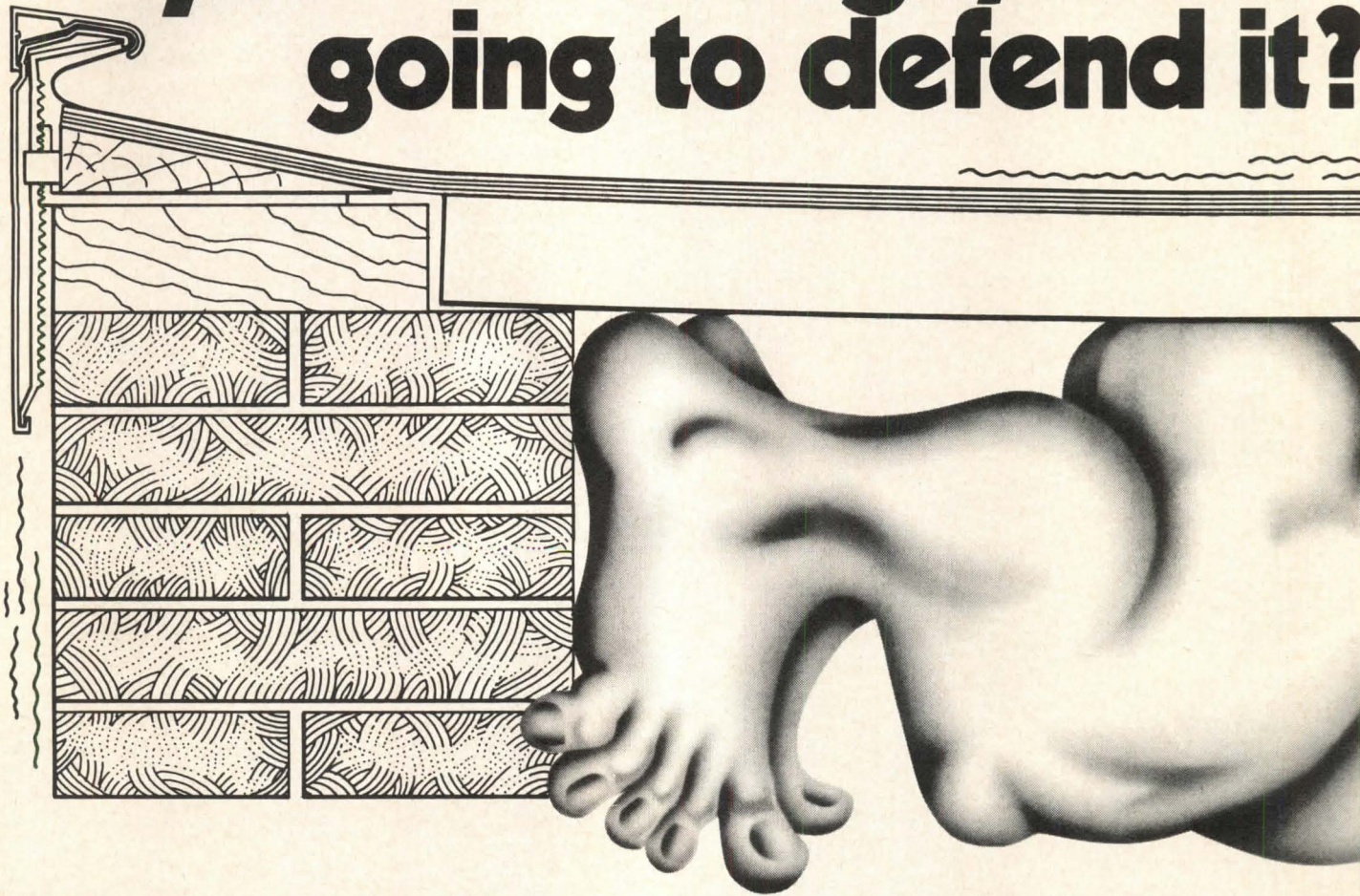
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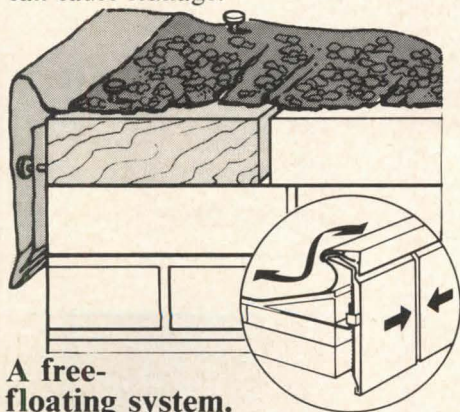
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When movement attacks your roof edge, what's going to defend it?



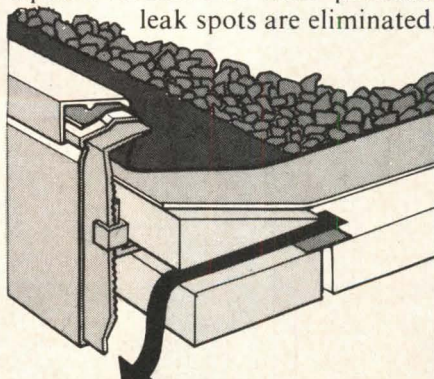
Everybody knows you can't stop the attack. For wherever you find two adjoining structural planes, you'll also find movement. Movement in different directions, at different rates, that makes nails pop, nail holes enlarge, joints open, etc. Any of which can cause leakage.



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But now there's a beautiful defense against movement: Tremline, a unique free-floating fascia system that takes movement in stride like no other roof edging system can.

For other systems are static and have very little give. But the components in Tremline are free to move independently, without exerting strain on each other. So Tremline can absorb movement between the roof and wall. And keep absorbing it for years and years. There are no exposed fasteners so these potential leak spots are eliminated.



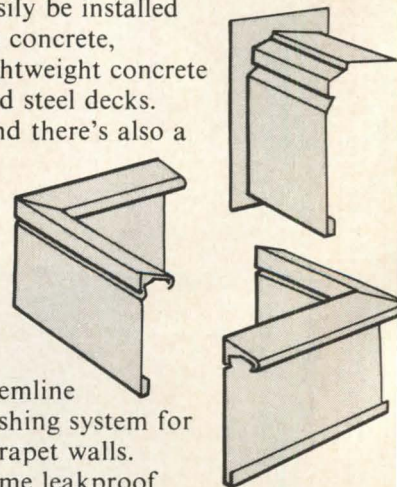
Built-in venting, too.

Tremline also allows perimeter venting of the roof insulation. Other edgings provide only partial venting, if any. And with the neoprene mem-

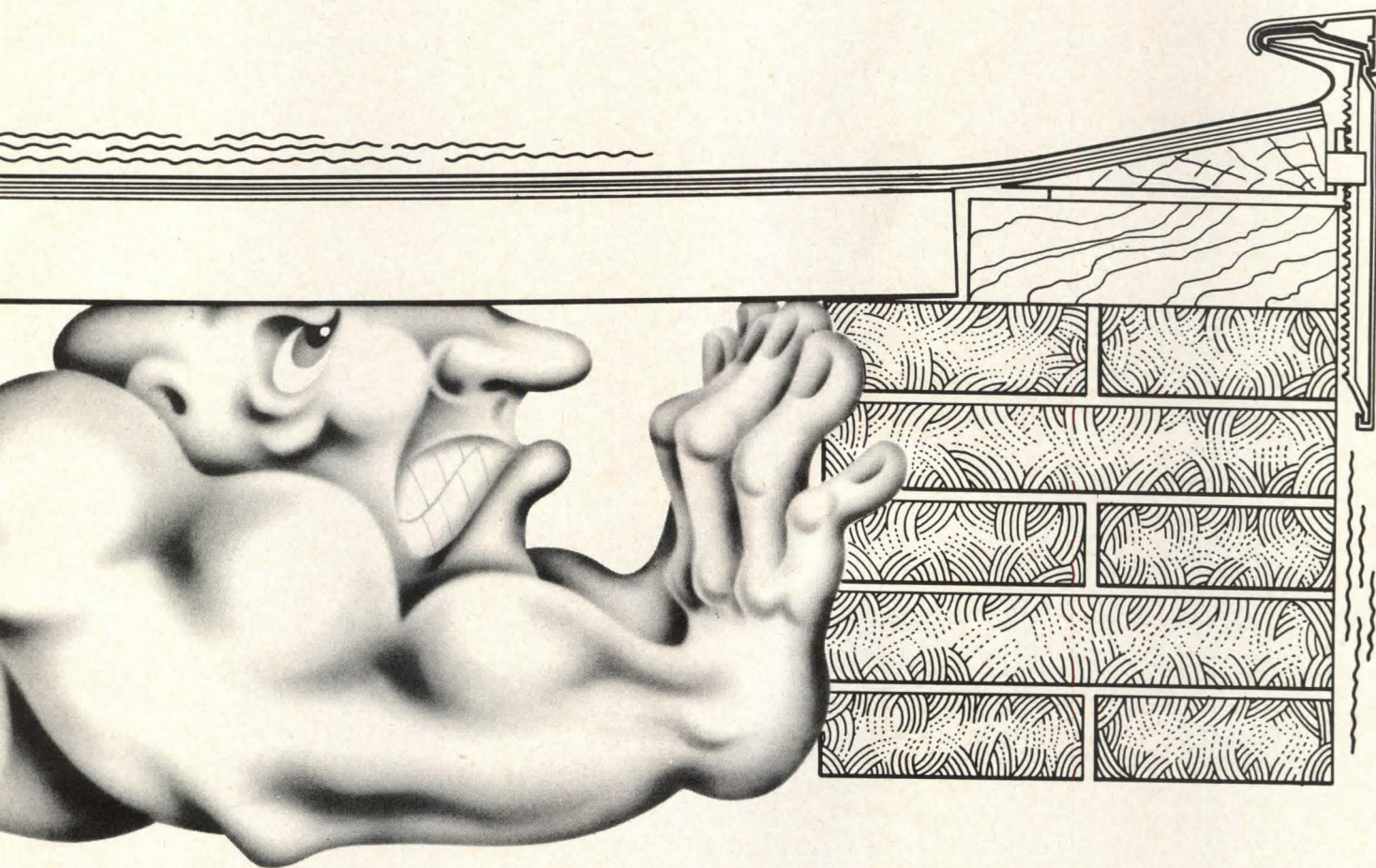
brane in position, you have an unbroken weatherproof seal around the entire building edge. The membrane also acts as an expansion joint which absorbs roof movement.

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Tremline is also versatile and adaptable. With its modular design, it can easily be installed on concrete, lightweight concrete and steel decks. And there's also a



Tremline flashing system for parapet walls. Same leakproof security, same easy installation.



And with Tremline, you get the complete system, from one responsible supplier. All necessary components are preassembled to meet conditions at corners, ends and transition points. So there's little to be detailed on drawings or fabricated on the job. Fascia is packaged in 15' lengths, 6" or 8" facings.

Architecturally beautiful.

Tremline is uniquely beautiful, too.

Gives a clean-line appearance to the roof edge. The extruded aluminum fascia comes in mill, anodized or custom-painted finishes, with slip joints every 15 feet. No ugly exposed fasteners. No oil canning.

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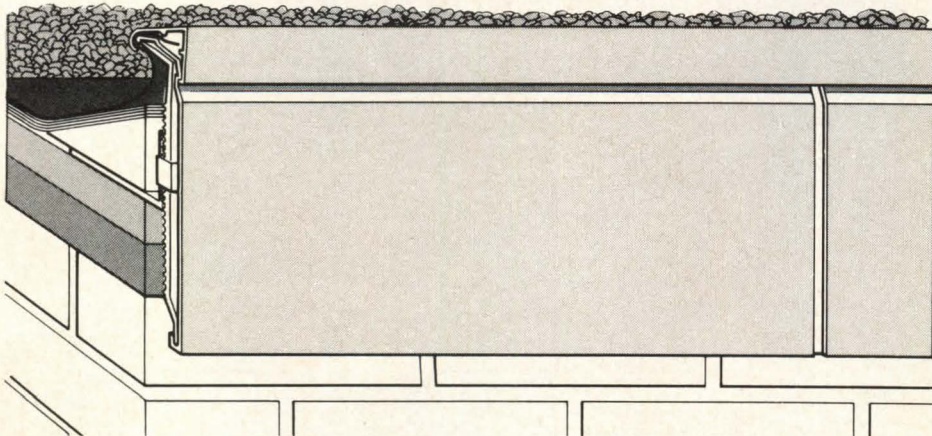
for most roof irregularities.

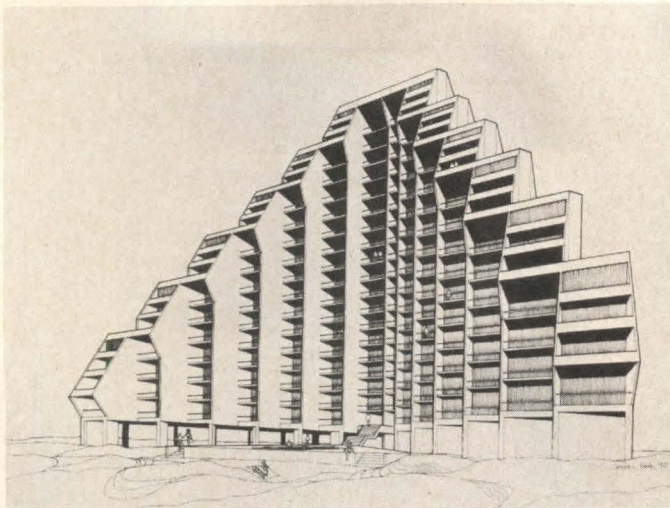
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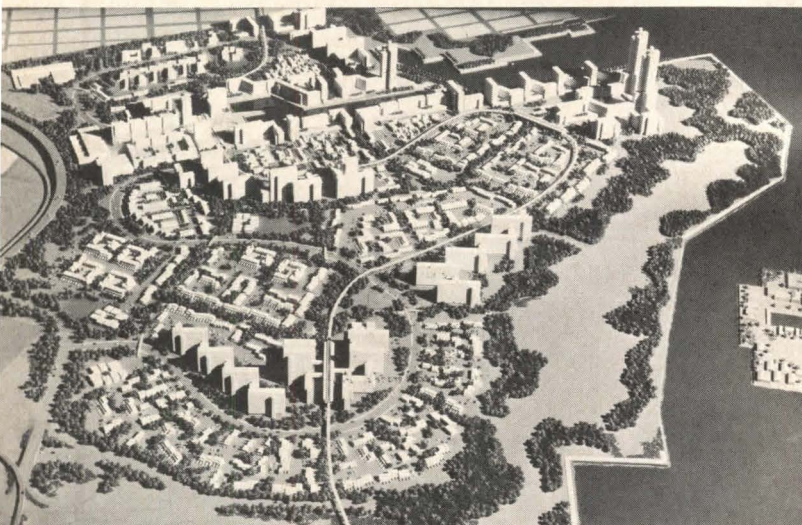
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Sprayed concrete condominium



Liberty Harbor



Air structure conference set for Columbia, Md.

Columbia, Md. will be the location of a conference, May 23-24, on air structures, co-sponsored by the Educational Facilities Laboratories and the Building Research Institute. Morning meetings are scheduled at Friendship (Airport) Hotel, and will feature three types of case studies. The first will cover the type of structure that shelters the Antioch College campus in Columbia—the low-cost, short-lifespan air structure. The second will concentrate on the more permanent structures exemplified by the work of Dr. David Geiger (P/A, Aug. 1972, p. 81). A third will be given on the applications and implementation of smaller, more conventional structures. The Research and Design Institute (REDE) and others will discuss ways to use existing technologies.

The overall purpose of the event, says Blair Hamilton, consultant to EFL is to transfer knowledge about "large enclosures for intensive human usage." Representatives of the architectural and engineering communities will be joined by educators, athletic directors and do-it-yourselfers, from the U.S. and Europe to view the latest developments in air structures. Manufacturers, not always the first to initiate ideas, could benefit as well. A running series of "pneu-jams" or rap sessions will go on simultaneously with the regular sessions. Known program participants at press time will include Dr. David Geiger of David Geiger-Horst Berger, PE, Paul Kennon of Caudill Rowlett Scott/Los Angeles and Robert Brown, Memphis architect for several recent air structures.

Sprayed concrete cuts time, cost

A concrete spraying technique tested on high-rise projects in Southern California is expected to save time and money on a condominium project in Ocean City, Md. Known as Con-spray, the concrete placement method is based on a spray machine that can put 20 cu yds of low-slump concrete in place per hour on a continuing basis. A light, single-sided backstop is used instead of conventional double forms.

Semidry concrete is delivered by transit-mix trucks and fed into the machine; three hydraulic pistons extrude the concrete through a hose. The structural concrete is sprayed continuously over 8-ft-high backstops, which are leap-frogged as the 5½-in.-thick wall moves upward. The process, says Hans U. Baumann of Scherrer-Baumann & Associates, structural engineers for the project, might be described as "horizontal single-side slip-forming." The 20-story, \$5 million building is the first of three planned for Ocean City by The Farms Co. William Morgan is the architect.

Liberty Harbor: opportunity across the river

Almost within the shadow of New York's twin World Trade Center towers (and silently mocking their sponsor, the Port Authority) is a 2500-acre tract of decaying waterfront in Jersey City, N.J. which may soon come to life as a \$2 billion new-town-in-town called Liberty Harbor. While development is already replacing waterfront rail yards in Chicago (Mar. P/A, p. 100) and Toronto (Feb. P/A, p. 75), New York's main railhead, over on the Jersey mainland, has been subjected to years of unrealized planning. This despite its convenient transit links to Manhattan and superior highway connections via a spur of the New Jersey Turnpike (foreground in photo). The big obstacles have been a crazy-quilt pattern of ownership (among several railroads, other private owners, city, state and federal government), the political intricacies—and high tax rates—of

[continued on page 46]



Congregation Beth El, New London, Conn.; Architect: Paul Rudolph, FAIA, New York, N.Y.; Roofer: H. R. Hillery Company, Groton, Conn.

THE ARCHITECT, METALS AND IMAGINATION

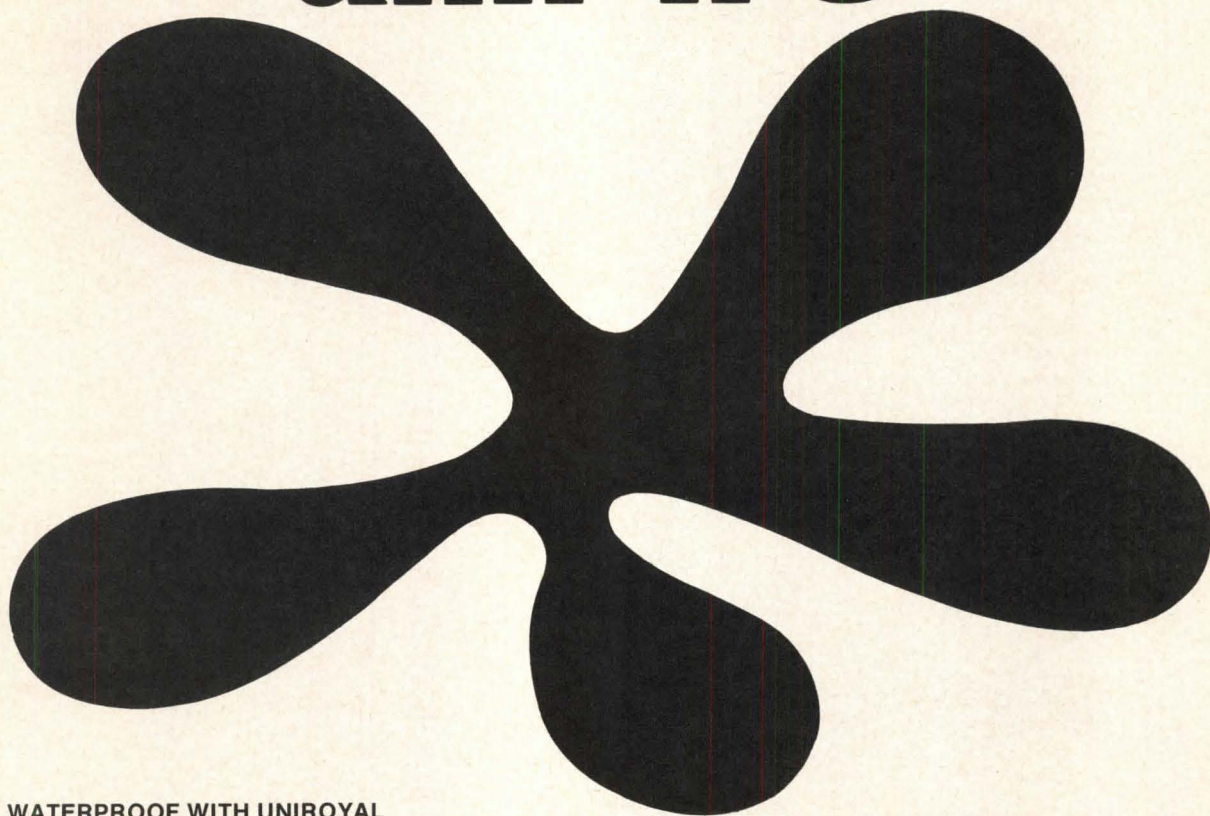
Many critics regard Paul Rudolph as one of the logical heirs to the late Frank Lloyd Wright's professional mantle, and his major projects have clearly influenced the whole range and dynamics of contemporary architecture. As Sibyl Moholy-Nagy once wrote, he has "great courage, comprehensiveness of talent, profound faith in the integrity of the architect's mission."

In conceptual felicity and strength of execution, Congregation Beth El is a notable example of Mr. Rudolph's recent work, and we are indeed gratified that in selecting a metal to sheathe and roof this distinguished building, he chose Follansbee Terne.

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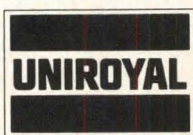
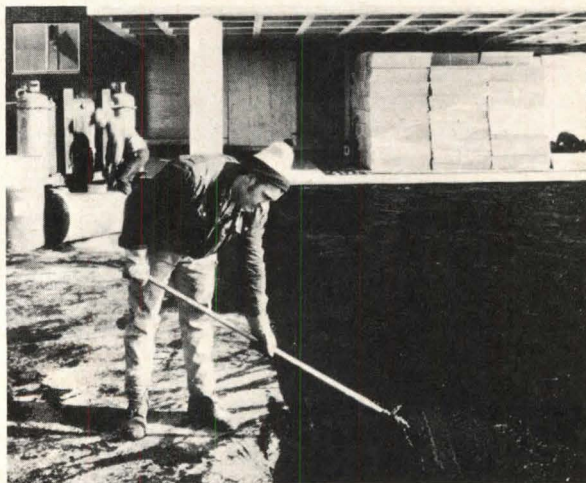


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R-WAY



Jersey City and the apathy of just about everyone outside.

The plan unveiled this spring calls for a residential community of 60,000 at the north end and a 12,000-job industrial park to the south. Residential development is concentrated in a 540-acre tract adjoining the existing downtown area and close to existing transit stations. Housing would range up to 60 stories, but half of it would be in low-rise apartments and rowhouses. Of the 20,000 units, 10,800 are to be for middle income, 4,200 moderate income and 5000 luxury. Of the subsidized units, 5000 are earmarked for the elderly (who make up a larger proportion of the population in Jersey City than in any other city except St. Petersburg, Fla.).

A new commercial core, located at the head of an existing channel, is planned to extend the present business district and encourage upgrading, rather than compete with it. The objective has been to introduce a new community of 60,000 residents into an economically depressed city of 261,000 without making it a privileged island.

The housing is sponsored by the United Housing Foundation, who gave us the 50,000-resident Co-op City in the Bronx (in conjunction with the National Kinney Corp.). This time United Housing has seen the need to include a mix of housing types, schools, commercial and community centers, and tentatively, an internal transit system. Liberty Harbor has an eminently reasonable plan, strongly supported by the state government, funded by its sponsors and drawn up by Raymond, Parish & Pine, urban planners; Farkas, Barron & Partners, engineers; Marquis & Stoller, architects; and Zion & Breen, landscape architects. The city seems optimistic about approval for federal support as a new town under the Title Seven program.



GSA's Sampson at Public Affairs Conference

Design professions must modernize: GSA's Sampson

Arthur F. Sampson, administrator of the General Services Administration had the strongest message for the 400 or so architects and engineers that gathered in Washington, D.C. for the AIA/CEC Public Affairs Conference in March. Speaking on the implications of the recently published report of the Commission on Government Procurement, Sampson told the group that they are going to have to modernize their ways of doing business in order to meet demands from building owners to build "better, faster and less expensively."

Pressure on architects and engineers to modernize is going to increase, Sampson said. "I see owners asking several firms for proposals which include a professional fee, a functional design concept, a representation of the aesthetic quality of the proposed project and an analysis of the quality of equipment and other building components on a life-cycle basis." Owners will be asking for "new services from architects and engineers like value engineering and participation as construction managers . . . private sector owners are turning to

those firms which provide the most comprehensive and complete services."

To meet these increased demands, Sampson said, design firms will need new skills and better management and personnel experienced in "procurement, supply, construction, contracting, law. Equally important, you've got to get the cash flow going in your firms to keep these talents on board and to submit the kind of proposals that will be requested."

Sampson also pointed out that while the majority report of the Commission on Government Procurement recommended among other points, that a-e services should be procured on the basis of quality and price and should, on projects over \$500,000, include estimated life-cycle costs, a minority report by three Commission members suggested that the procedures of the recently passed Brooks Bill (which puts procurement of a-e services on the basis the professions feel it should be on) be followed instead. However, Sampson cautioned, the Commission report reflects views held by powerful people in the federal government and a growing number of private owners.

Sampson's talk accompanied luncheon; the morning and afternoon were devoted to talks and seminars outlining the status of a variety of legislative programs affecting architects and engineers. The professions were challenged by Rep. William A. Steiger (R.Wis) to help clarify provisions (which he helped write) of the Occupational Safety and Health Act of 1970. Another session covered the difficulties ("jurisdictional and ideological") in developing a coherent national growth and land-use policy and the rest of the program was devoted to housing, pensions, federal spending, timber supply, transportation, energy and other problems.

Conspicuous consumption—and conservation

Consumption and conservation of energy were made conspicuous in an exhibition in New York last month. For three weeks, the Owens-Corning Fiberglas Exhibit Center played host to an exhibit mounted by the New York Chapter AIA Natural Environment Committee. In photos and text the exhibit highlighted buildings that do and do not conserve energy: the Museum of Modern Art was cited for its trees, shrubs and plantings that improve the micro-climate, and the Guggenheim Museum for its use of natural light; the entire New York night skyline was mentioned as a "beautiful example" of energy waste.

The exhibit was designed by Arnold Saks, and supported by Carrier Air Conditioning Co., Con Edison, The General Services Administration, the J.M. Kaplan Fund, Mobil Oil Corp., Owens-Corning Fiberglas Exhibit Center, the AIA Research Corp. and one anonymous donor.

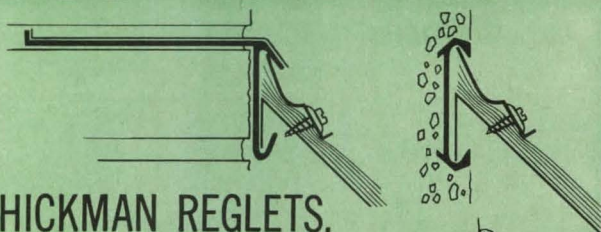
GSA awards giant systems contract

What Arthur F. Sampson, administrator of the General Services Administration, describes as the "first application of an integrated building systems approach to high-rise office construction" is a step closer to reality. GSA has awarded the \$29,660,000 contract to a joint venture of Owens-Corning Fiberglas Corp. and Wolff & Munier, Inc. to design, fabricate, install and maintain for nine years a building system for three Social Security buildings.

The three buildings, located in San Francisco, Chicago and Philadelphia will range in height from 6 to 10 stories and con-

[continued on page 50]

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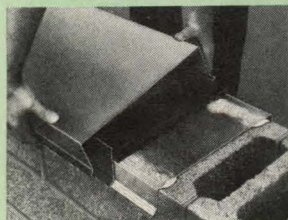
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tain nearly 1.9 million sq ft of floor area. Total cost for the project is put at around \$110 million. The system will include structural elements above the foundation; a floor/ceiling sandwich consisting of HVAC, electrical and lighting systems along with finished floor and ceiling; and a partition system. The building system itself will account for \$26,960,000 of the total contract; the remaining \$2.7 million will cover the nine-year maintenance program.

Building Team: the name of the game is costs

The Third National Conference for the Building Team, meeting apart from the AIA convention for the first time, drew more than 200 persons to Chicago for three days of shop talk in April. The talk itself indicated where the design team is going. To the terms CPM, construction management, performance specs, fast-track scheduling, systems approaches and the design team, add *value analysis*, *life cycle costing* and *retrofit* (adding new items to existing buildings).

Two other firsts marked the conference: owners and mortgage bankers were heavily represented on the speakers' platforms as well as in the audience, and a new member of the building team, the general automation contractor, was introduced. The GAC, according to speaker John B. Phillips of the Engineering Supervision Company, integrates control and monitoring of all functional systems of a building into a single, computer-controlled system.

Since the unwritten goal of the organizations sponsoring the "building team" theme is that everybody be on board first, most sessions were devoted to reasons why. Speakers from all sides—cost planners, construction managers, owners, investors, fire safety experts, contractors, labor, engineers and even some architects—repeated their call to be included "from day one." Two sessions were given over to case histories of successful team projects. One session reviewed the General Services Administration's systems approach to three Social Security Payment Centers, a hospital for the University of Cologne, and LaSalle Plaza, designed by Harry Weese & Associates. Another session dealt with negotiated contracts as the answer to the owner's desire for a guaranteed price; it was illustrated by the Bryan Street Office Tower, Neuhaus & Taylor, architects.

A panel of owners aired gripes about almost all other team members, but couldn't agree whether the owner should be the "leader." Opinions ranged from the fact that the owner is not really in the building business, to the bottom-line fact that he is, since he has to pay for everything. The most popular session covered legal liability and responsibility, where agreements between owner, design professionals and contractors of limitation of liability were discussed as a means to curb increasingly expensive litigation. But no matter which topic was being discussed by whom, the pervading theme of the conference was costs. Architects, by and large, were given short shrift as "not understanding" or "not caring" about costs. It was not until the final session, on ideas for reducing project costs without reducing quality, that Calvin B. Dalton of Dalton, Dalton, Little & Newport (himself a civil engineer) spoke out, saying that architects do understand and do care about reducing costs, proving it with specific examples.

Design: necessity even for government

One way or another, just about every speaker at the First Federal Design Assembly, held April 2-3 in Washington, delivered the same basic message: design is a necessity, not a luxury, and good design costs less, all told, than bad design. And as Bill Lacy, Director of the Architecture and Environmental Arts program of the National Endowment of the Arts, pointed out by quoting from *Design Canada*, "Everything that doesn't happen by accident . . . happens by design."

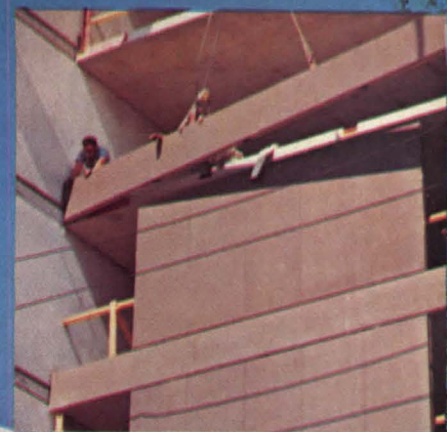
The speakers and participants were stellar: Ivan Chermayeff and Richard Saul Wurman served as co-chairmen and co-moderators for the program, and the guest speakers were top-level designers from a variety of fields. Among them: designer and film-maker Saul Bass, industrial designers, Niels Diffrient, Robert Probst, Eliot Noyes, Gerald McCue, Robert Marquis, M. Paul Friedberg. And if the speakers were stars, the first event fairly glittered: it was an evening session, held in the gold-leafed Interdepartmental Auditorium, and it consisted of a tape-recorded message from the President, a talk by Nancy Hanks, Chairman of the National Endowment for the Arts, a preliminary version of a film by Charles Eames, a finished film by Chermayeff and Wurman called "What do You Mean by Design?," and a keynote speech by Rawleigh Warner, Jr., chairman of the board of Mobil Oil Corp.

That message was echoed and amplified on the second day as speakers outlined the results of other programs to improve design or insist on good design, in graphics, products and furniture, housing, parks and landscape architecture. Along with the talks, the program included an exhibit of well-designed federal projects of all kinds, based on, (and taking its title from) a book called *The Design Necessity*, again by Chermayeff and Wurman, along with Ralph Coplan and designer Peter Bradford.

The films, the book, the exhibit and the talks were the attention-getters; if there is significant improvement in quality of design in the federal government, it will be the result of some dedicated work behind the scenes. The visible part of this effort is the government Design Improvement Program, of which the Assembly itself is a part. The other three parts include a review and expansion of the Guiding Principles for Federal Architecture, drawn up in 1962; a program to improve the effectiveness of federal graphics and publications; and a study of civil service procedures for recruiting, hiring and training design professionals for federal jobs.

The study of the 1962 Guiding Principles will be done by a task force directed by Bill Lacy and including Sen. Howard H. Baker, Jr., Florence Knoll Bassett, Edward T. Hall, Lawrence Halprin, Jerome W. Lindsey, Eliot Noyes, I.M. Pei, Richard Ravitch, Chloethiel W. Smith, Franklin A. Thomas, Congressman Frank Thompson, Jr., Walter Wagner and Harry Weese; special advisors are Charles Eames and O'Neil Ford, and Nancy Hanks is the chairman. The graphics improvement effort, which grew out of a study made in 1970, is already underway, with seven agencies already participating. Part of the effort involves a number of panels charged with reviewing graphics from federal agencies: the list of panelists includes Bradbury Thompson, P/A's graphics consultant.

The civil service review also involves a task force, which will look into such matters as setting up expert rating panels to review credentials and portfolios of applicants for design positions, training programs for designers and "design awareness" programs for federal administrators.



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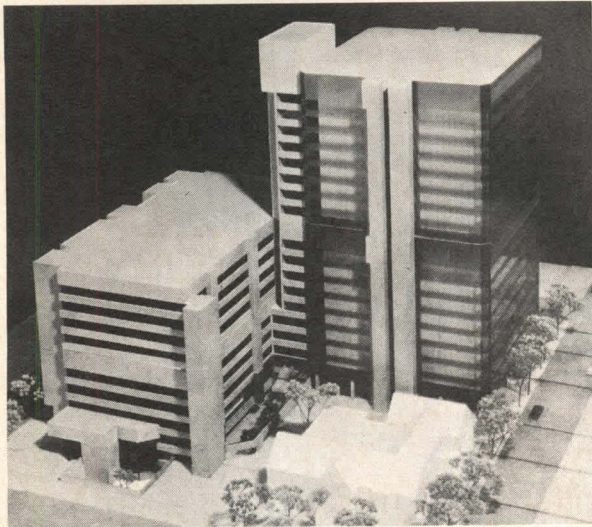
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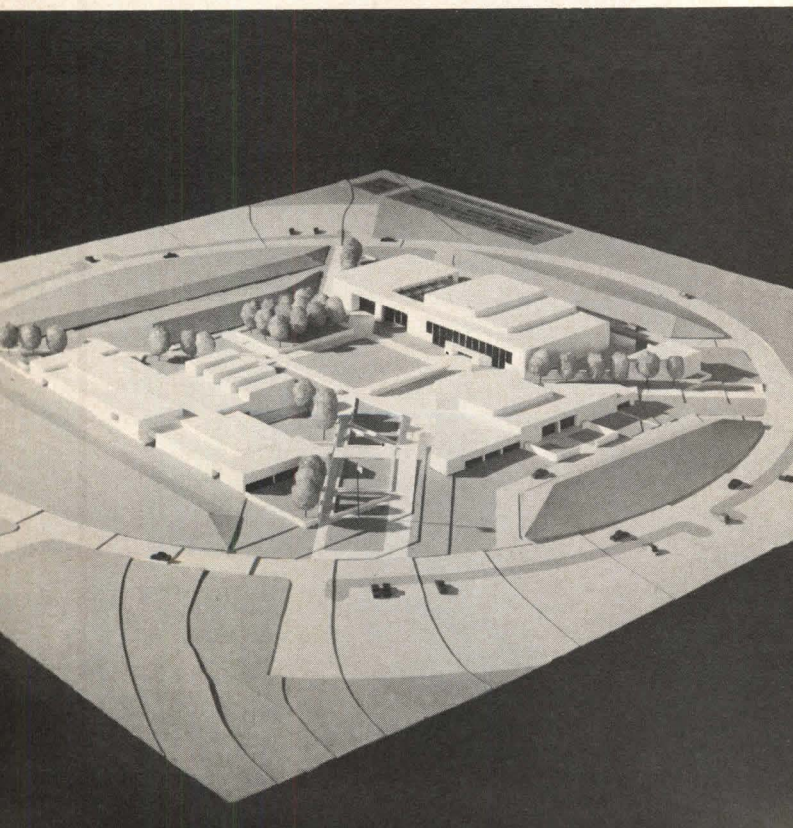
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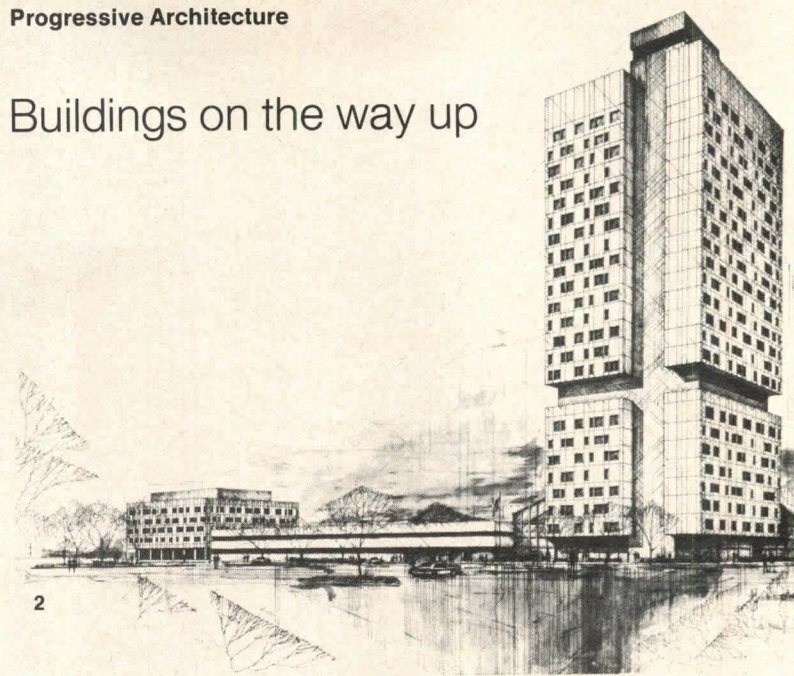


4



Progressive Architecture

Buildings on the way up



2

1 Two major laboratory buildings are going up in the heart of the Mayo Clinic Campus in Rochester, Minn., both designed by Ellerbe. The Guggenheim Life Sciences Facility will provide 200,000 sq ft of education and research space, and the Conrad N. Hilton Laboratory and Research Center will include 160,000 sq ft for diagnostic functions and behavioral research. Total cost for the two structures will be approximately \$28 million; they will share a central elevator core and a court that serves also as an entry lobby and waiting area for clinic patients.

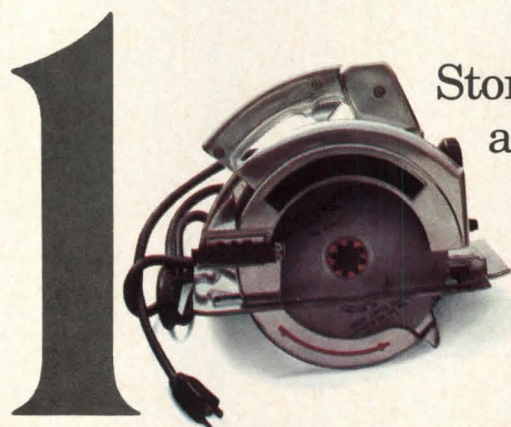
2 High-rise office tower highlights plans for a 20-acre office development in the heart of Troy, Mich.; the complex will also include shops and restaurants in its 400,000 sq ft of space. The 25-story tower is one of two buildings planned; the other is a five-story structure. Parking for about 1800 cars will be provided in a three-story garage. Windows on both buildings will be arranged in an irregular pattern while the band midway around the tower will mark the mechanical equipment core. Architect for the complex is Louis G. Redstone associates. Interesting note: the land was purchased from Minoru Yamasaki, whose headquarters is adjacent to the site. First tenants are expected to move in during the fall of 1974.

3 What's more appropriate for the headquarters of the Automobile Club of Michigan than a community called Fairlane developed by a subsidiary of Ford Motor Company? The \$13.5 million, 360,000-sq-ft building was designed by Giffels Associates, Inc. and is set to be completed early in 1974. Its 600-ft length is uninterrupted inside except for two escalators serving the three office floors; stairs, elevators and services are to be in five towers outside the rectangular building. Perimeter towers and end walls will be fractured ribbed masonry units, sun screens will be poured-in-place concrete, and the curtain walls will be glass and aluminum.

4 Designed to complement a new town proposed for a nearby site, the regional service center for Metropolitan Life Insurance Co. in Aurora, Ill. will be a four-story structure with a steel frame and precast concrete exterior, providing about 192,000 sq ft of office space. Windows will be gray solar glass in gray anodized aluminum frame. Architects for the building are Eggers Partnership.

5 Student plaza is the center of campus designed for Seward County Community Junior College at Liberal, Kan. by Schaefer, Schirmer & Associates. Surrounded by a circular road and peripheral parking, the campus proper will be kept free for pedestrians. Building program starts with academic, humanities and activities buildings, with the academic building being the largest. It includes classrooms, faculty and administration offices and a central library. The complex is designed for 1000 to 1200 students; project cost is estimated at \$3.1 million.

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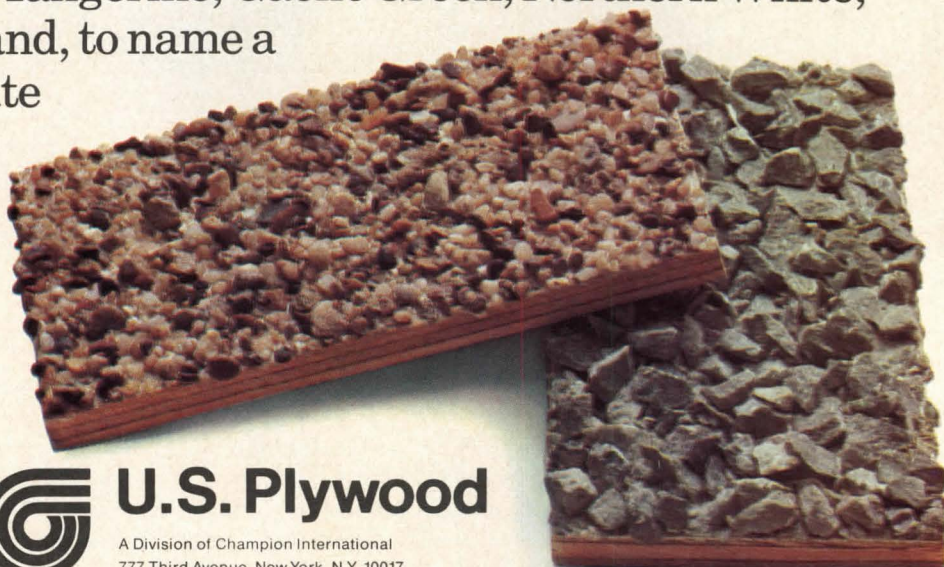
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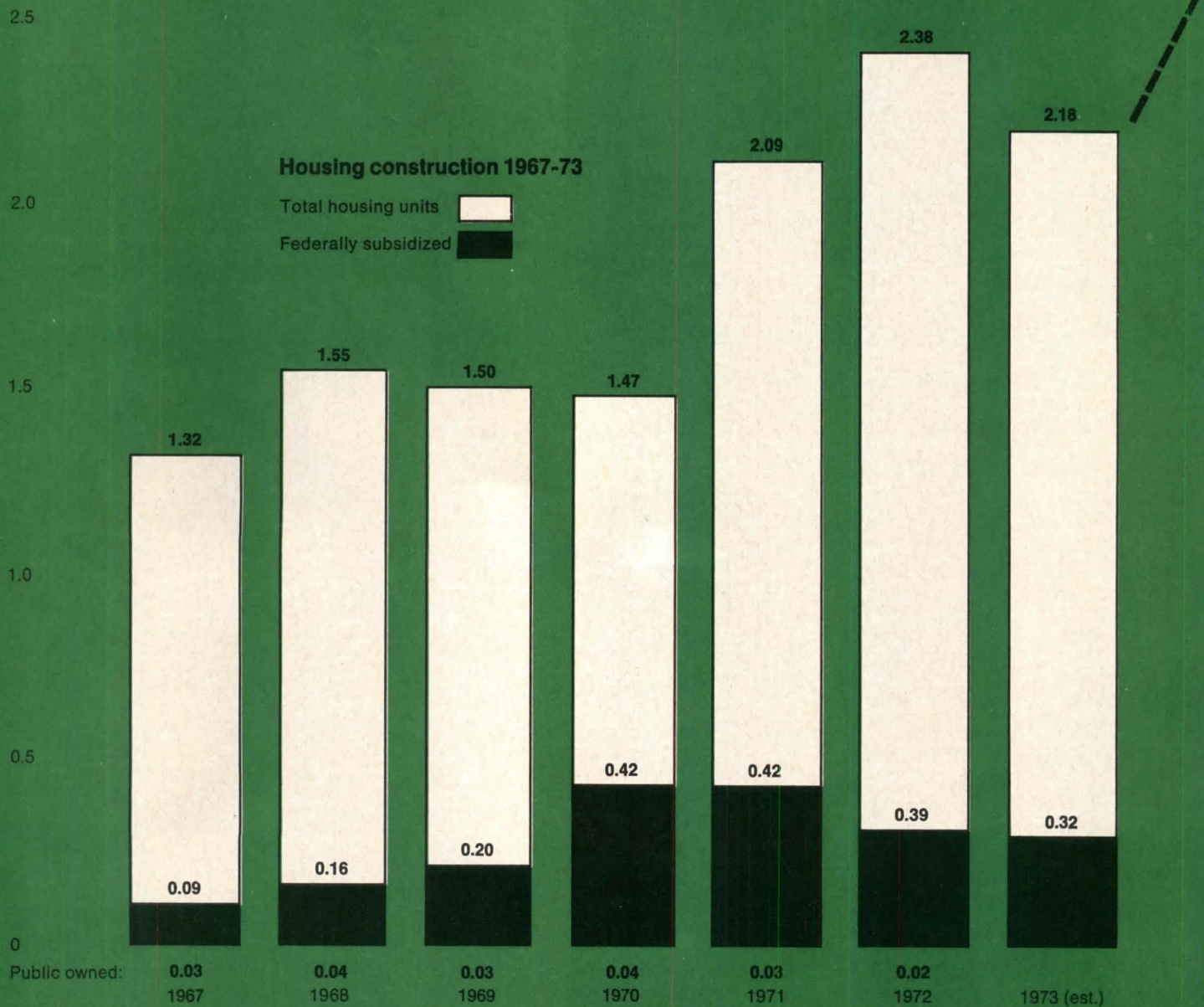


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1974 housing construction expected to break 1972 record

Million housing units



Reports of work now on the boards of architectural offices show an increase over 1972 figures—as much as 46 percent for some types of residential buildings, according to P/A's research director, Walter Benz

Nineteen seventy-two was a record-breaking year in building construction. In housing, the number of total starts exceeded the all-time record of 1971, which followed declines in 1969 and 1970. Some of this was due to stimulation by government subsidy which, beginning in 1970, has accounted for about twice as many units as in previous years. Last year about 16 percent of all housing units started were so subsidized, a somewhat lower percentage than in the previous two years,

but still more than twice the 1967 proportion. Construction of state and local government public-owned housing, however, has remained more or less constant since 1967, accounting for only about 1 percent of units constructed in 1972.

The Dec. 1971 P/A Business Survey predicted a total of \$45.57 billion for residential construction for 1972, close to a third of all new building construction [1].

That forecast corresponds closely to early figures from the Department of Commerce which showed the actual 1972 residential figures to be a little more than \$44 billion, including public housing. An improving general economy and more accommodating monetary conditions, plus the federal subsidies, helped stimulate the 1971 and 1972 totals. In 1973 the total may be off by as much as 9 percent below the 1972

record, but this is seen by many as a stabilization prior to a period of renewed growth.

As 1973 began, 22 of 25 primary economic indicators reflected an expanding national economy. The lagging indicator of labor cost/unit of output was just a bit more positive than negative. Two leading indicators were questionable, though again, not actually negative. One of these was new business formations, and the other was housing permits. In mid-February, all primary leading, roughly coincident, and lagging indicators were appraised as expanding cyclically. Barring excessive inflation, this indicates that this year and next will be economically comfortable.

Thus growth in housing is expected to gain momentum. Total employment in manufacturing has continued to increase. Spendable earnings have continued to be well over 1971 levels, as has commercial bank credit. Interest rates will probably increase, but within reason. Considering the current economic trends, investment in residential building can be expected to fairly well overcome whatever slack is created by the moratorium in federal funding.

The full significance of the moratorium, however, is yet to be determined. Early reactions vary from the outright anger displayed at the NAHB convention when it was announced, to optimistic hopes that the end result will be an improvement in meeting the nation's housing needs. Similarly, the effects of the federal revenue sharing plan are in doubt. Much depends on whether the states will apply the revenue towards housing rather than to other things that might be more politically expedient. It is likely, though, that federal funding of housing will be earmarked specifically for that purpose as special funding, rather than put into the general funding category. Chances are that federal funding assistance programs will be established by the end of this year, and this will be reflected in some increases in 1974 residential construction.

Architectural offices this year are at work on next year's construction. The volume has increased for each type of housing [2].

The work in architectural offices signals what short-term future construction may be expected, while actual construction takes place according to anticipated economic environment. The difference between the architectural work done one year and its construction the second year depends on the economic situation of the second year. Based on all economic indicators, 1974 may be expected to set a new record [3].

Architectural offices represented by P/A subscribers will account for the design and specifications for 87.5 percent of 1974 residential construction [4].

Because so many factors influence the general economy, any forecast beyond a very short term must be considered with a certain amount of restraint. While building permits and construction starts are most sensitive to economic cycles, serving notice of change a year at most in advance, work in architectural offices indicates longer-term expectations. Experience shows that adequate restraint has been exercised in developing P/A forecasts based on these advance indicators. For the current forecast, responses from architectural offices are likely to be conservative, where increases were anticipated, because of the less-than-exhilarating economic environment at the time the survey was made. Considering all economic factors prevailing during the last quarter of 1972 and the first quarter of this year, there are strong reasons for expecting this forecast to be close to actual developments.

1. P/A's 1971 forecast of residential new building construction for 1972 (\$billion)

Private, single homes (architect designed)	\$ 8.00
Low-rise buildings (private)	20.45
High-rise buildings (private).....	7.77
Urban redevelopment housing.....	7.79
Other housing construction, including public-owned.....	1.56
Total	\$45.57

2. Change in architectural work 1972-73

Private, single homes	Up 24.3%
Low-rise buildings (private)	Up 24.3
High-rise buildings (private).....	Up 46.7
Urban redevelopment housing	Up 9.4
Other housing construction, including public-owned	Up 7.2

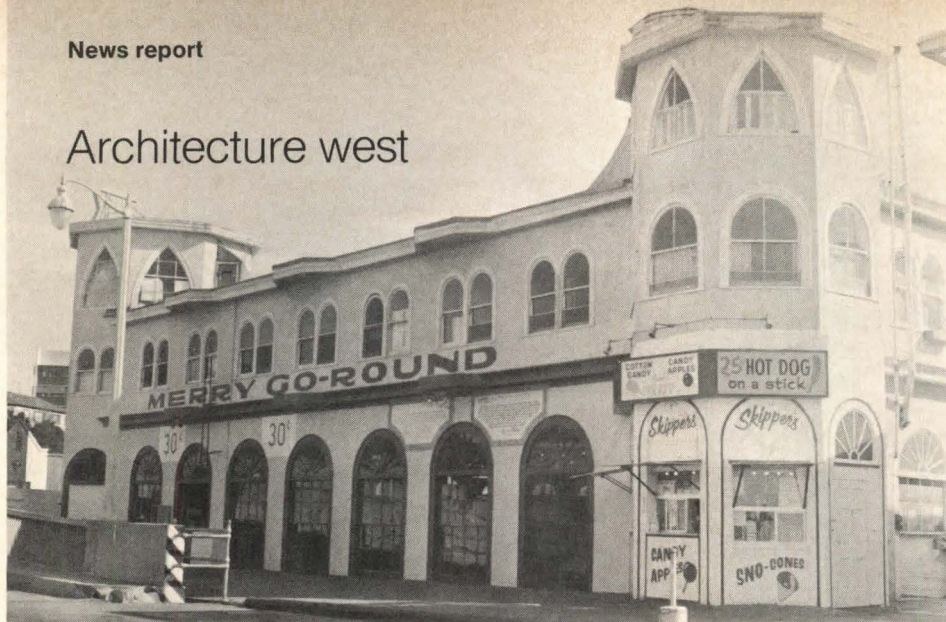
3. Residential new construction for 1974 (\$millions)

Private, single homes	\$ 7,382.20
Low-rise buildings	21,561.41
High-rise buildings.....	11,936.98
Urban redevelopment housing.....	8,998.28
Other residential building	1,497.39
Total	\$ 51,376.26

4. 1974 construction designed by P/A architectural offices (\$million) and proportion of total residential construction

Private, single homes	\$ 4,317.21	58.5%
Low-rise buildings	19,383.71	89.9
High-rise buildings.....	11,173.01	93.6
Urban redevelopment housing.....	8,748.39	97.2
Other residential building	1,356.47	90.6
Total	\$44,978.79	87.5%

Architecture west



Santa Monica pier:
merry-go-round fishermen

Two pieces of good news out of Santa Monica—retrieving the municipal pier and saving Irving Gill's cottage court. The municipal pier is really two piers, the 1921 pier which is a haven for young and old anglers and an adjoining amusement pier built in 1909. The City Council voted in February to destroy them—without reckoning the mood of the users. The outcry from all age groups was so swift that the council reversed itself; members up for re-election and new aspirants to office promised the voters to preserve the pier. Throughout the summer at least, cyclists and walkers can bait up and cast a line, enjoy cotton candy or a corn dog, ride the merry-go-round to strains from the 1900 Wurlitzer organ, buy shells, have their palms read, eat a plate of clams or sand dabs.

Nothing much changes at the pier. My husband left his glasses in a restaurant in 1941, and in 1946 he recognized them on the carved face of a coconut decorating the bar. When he claimed them the bartender said, "We knew you'd come back after the war." Onion domes once crowned the turrets of the merry-go-round house, and among the succession of people who have occupied the turret apartments was architect Kenneth Dillon at whose table you might meet Claes Oldenburg, Juan O'Gorman or any of the Los Angeles' Pop School.

The threat to the pier started on the day a proposed 35-acre, man-made pleasure island for Santa Monica was abandoned by a council vote. The \$90 million scheme included a 30-story hotel, world trade and environmental center, convention center, theaters, retail complex, sports pavilion, ice-skating rink, bicycle paths, heliport, boat docks, fishing plazas and underground parking. Originally the council approved it 6-0, but the determined Save the Bay committee forced a second vote, this time 4-2. After the protestors left the council chambers that body quietly voted to raze the piers. Then Save the Bay changed its hat and became Save the Pier.

The hope for an all-purpose island is not altogether dead, despite the city engineer's warning that it would increase the accretion of sand in the harbor; nor is the life of the pier guaranteed for long. But there is abundant proof that a high value is placed on simple pleasures that cost no more than a fishing line—and you can even rent one of those at the pier.

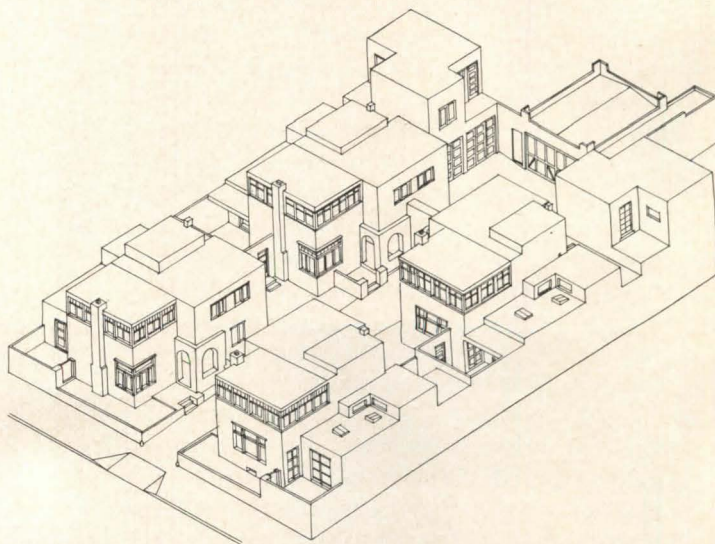
Rescued, too, in Santa Monica is Irving Gill's 1919 reinforced concrete low-cost cottage court. After the destruction of Gill's famous Dodge house in West Hollywood (the site is now filling with apartments designed by Kanitzer and Marks) it was reassuring to hear that Horatio West Court had been

bought by three architects, a resident physician in psychiatry at a VA hospital, a screen writer and a documentary filmmaker. Their average age is 33. They paid \$125,000 for the 75-ft-wide court and an adjoining lot.

The 6-in. concrete shell is intact, but during the last 10 years, while the property has been under seige by the counter culture, the interiors have deteriorated. The group will share the cost of sandblasting interiors and exteriors, new roof, doors and sash; the owners will take care of their own plumbing and electrical costs.

The moving force in the group is Glen Small, a faculty member at the Southern California Institute of Architecture (SCI-ARC) the new freely structured school in Santa Monica founded by Raymond Kappe, former chairman of architecture at Cal Poly Pomona. Small intends to camp out in his unit while restoring the interiors. Margaret Bach, the youngest of the group, is documenting the restoration on film. Stephen Schmidl, designer at Gruen Associates, reported at the pre-restoration party last month that he had come up with an unexpected problem: a woman breaks into his living room every night to sleep.

In 1968, the Historic American Buildings Survey documented Horatio West Court, and the bird's-eye view shown here is from the collection of HABS drawings on file at the Library of Congress. [Esther McCoy]



Horatio West Court

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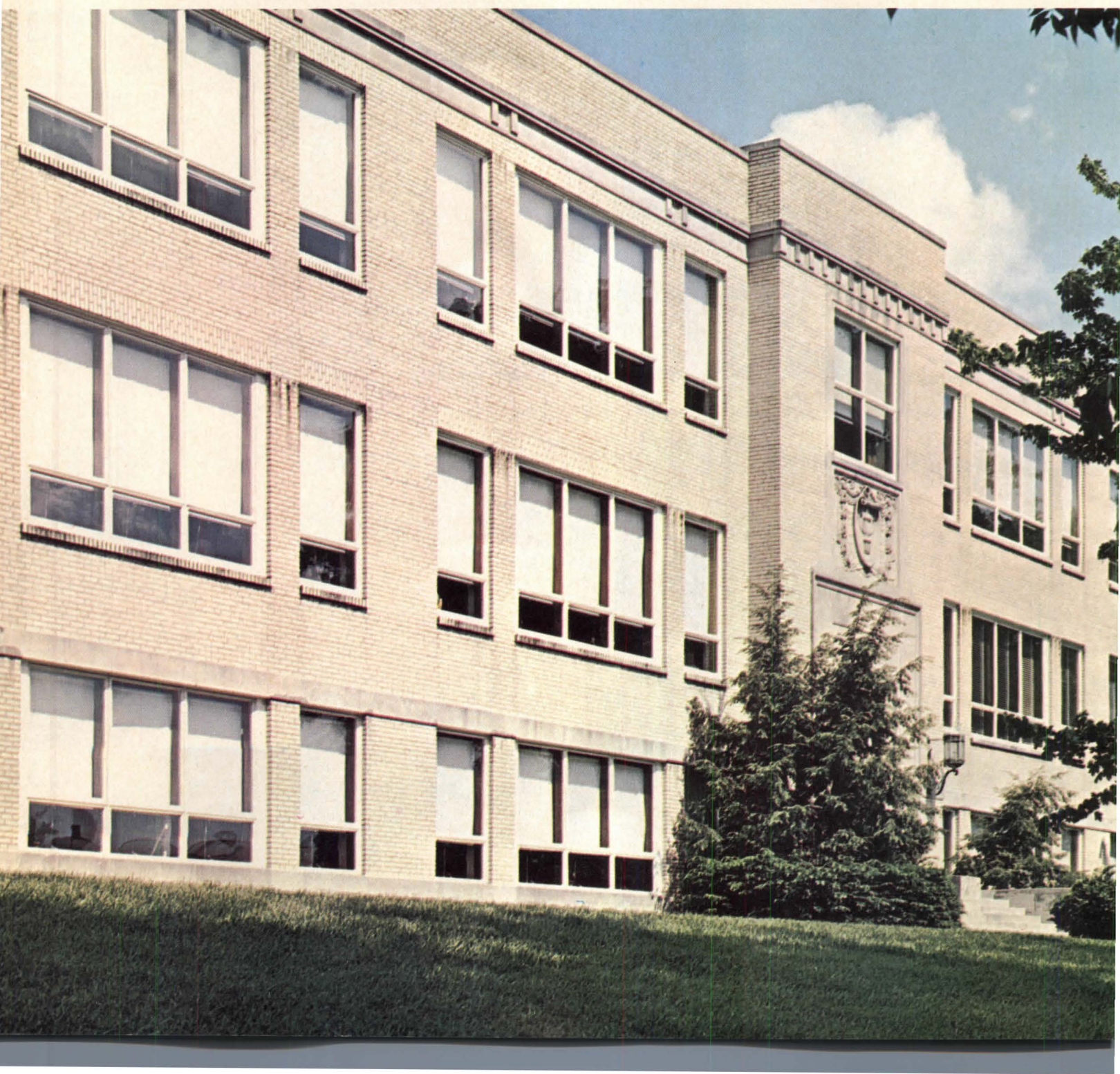


When the New Albany, Indiana, Senior High School was remodeled recently, Andersen Perma-Shield Windows fit right in. Not only did they fit the character of the building, they also fit into the structure without alteration to frame or masonry. In fact, the architect was able to use standard window units with only small auxiliary

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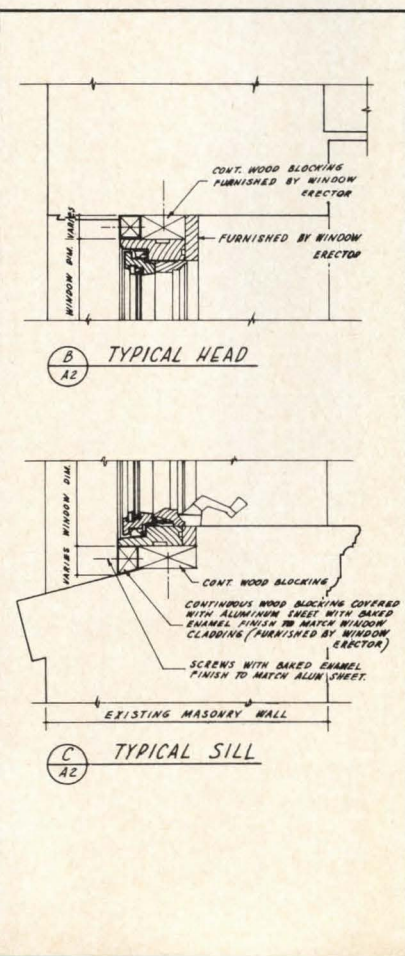
ing this 1929 school was to reduce heating and cooling costs. So the superior insulating properties of Andersen Windows was another reason for their selection. Their stabilized wood construction, double-pane welded insulating glass, and close-fitting tolerances, all help to reduce heating and cooling losses and condensation.

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Places to live

May 1973

Since 1937, the U.S. Government has accepted an obligation to ensure sound housing for low-income families. In the 1960s we heard much rhetoric about the "sixth of the nation" that was still inadequately housed, and in 1968 Congress set a goal of 2.6 million housing units per year (subsidized and unsubsidized) to relieve this shameful situation. Although production has fallen far short of this goal in terms of num-

The solution to the nation's urban housing problems in providing a decent home for every American family calls for major efforts by the Federal Government, private enterprise, organized labor and state and local governments in creative and affirmative partnership.

Report of the President's Committee on Urban Housing, 1968

bers, we have seen development of some superb models in terms of quality and economy (see following pages).

Early this year, the Nixon Administration imposed a moratorium (of 18 months) on funds for housing and urban development. This step is widely seen as the opening play in a contest with Congress over reform of existing programs. The Administration portrays itself as crusading against waste and delay by switching to the concept of "New Federalism"—a system of revenue-sharing grants to states and cities, returning more self-determination to "grass roots government." Congressional misgivings about responsibility of government at lower levels can be readily dismissed as obstructionist.

The main issue separating them is the question of Federal control over the use of Federal funds. (Housing and urban development programs together, incidentally, accounted for a whopping 1.6 percent of the fiscal 1973 budget.) In principle, New Federalism would allocate funds on the basis of statistical measures of need, not on Federal evaluation of individual proposals; and local needs would carry more weight than national objectives. But our problems of housing and poverty are national, not local. Their severity and distribution are direct outgrowths of Federal income tax provisions, of home loan and highway programs, of agriculture and labor policies; their impact clearly extends across city and state boundaries.

Conceivably, the outcome of this contest could be a more effective system of delivering housing and related community services, more sensitive to local needs. But two aspects of the situation must gravely trouble any of us who see adequate housing as essential to American society:

- 1 The outcome is ominously unpredictable.
- 2 The moratorium itself will be a devastating setback to parties involved in producing subsidized housing—one from

which many agencies, sponsors, planners, builders and even cities may never recover.

When the moratorium on subsidized housing was announced, the government gave assurances that funding already "in the pipeline" would keep construction going until new mechanisms were established. As it turns out, much of this "pipeline" money is earmarked for construction already in place, and some projects that had proceeded into construction on verbal commitments have had to be halted. Since subsidized housing has recently accounted for 16 percent of all housing, the effect on construction activity as a whole will be a mild decline (p. 54). Planning is, of course, pointless for the time being, and agencies all over the country have told architects to lay down their pencils.

Except for specific exemptions involving favored programs (such as new communities, which the Administration cor-

"Don't expect nothin' from nobody, especially the Government."

Archie Bunker, "All in the Family," CBS TV, 1973

rectly recognizes as having overriding national priority) subsidized housing programs in the U.S. are likely to remain stalled for many months to come. Most of us will be waiting anxiously for the outcome of the contest in Washington, but we can be doing more. Those of us who understand the design, financing, construction and administration of housing have an obligation to speak out for real advances over previous programs. New programs could, for instance, confront the inordinate costs of construction, financing and land; they should reflect recent findings on these constraints to development by the AIA's National Policy Task Force. (The report of the AIA's national "Constraints Conference" should be in chapter hands by now and is available from AIA headquarters in Washington.) New programs could introduce more advanced ways of judging cost—in terms of *life* cost rather than *first* cost; they could (probably *will*) make it easier to incorporate shops, schools and other services within housing developments, and to plan for stronger relationships between new development and existing context.

This current disruption of the status quo—severe as it is—can be an opportunity for architects, engineers and builders to apply their specific expertise to *improving* housing and development programs.

John Morris Diefen



A long, mid-rise building at the top of the hill is essentially "closed" in the front, but the rear is largely glazed to give views across the valley.



Near the end of the site a row of townhouse units opens directly to picnic and playing areas before the wooded hill drops away to the canal below.

UDC Ithaca Scattered Site Housing Project, Elm Street site

Scattered site hill town

This public housing on a hillside overlooking downtown Ithaca, N.Y. looks like an immense megastructure from the opposite side of the valley. But as in European hill towns, here the site was also the main influence on design in producing a feeling of intimacy and privacy

The UDC Ithaca Scattered Site Housing Project, designed by Werner Seligmann & Associates, is not the most ideal housing ever built. Bear in mind, however, that it is publicly assisted housing that was constructed within severe budget limitations for just under \$25 a sq ft. Within walking distance of down-

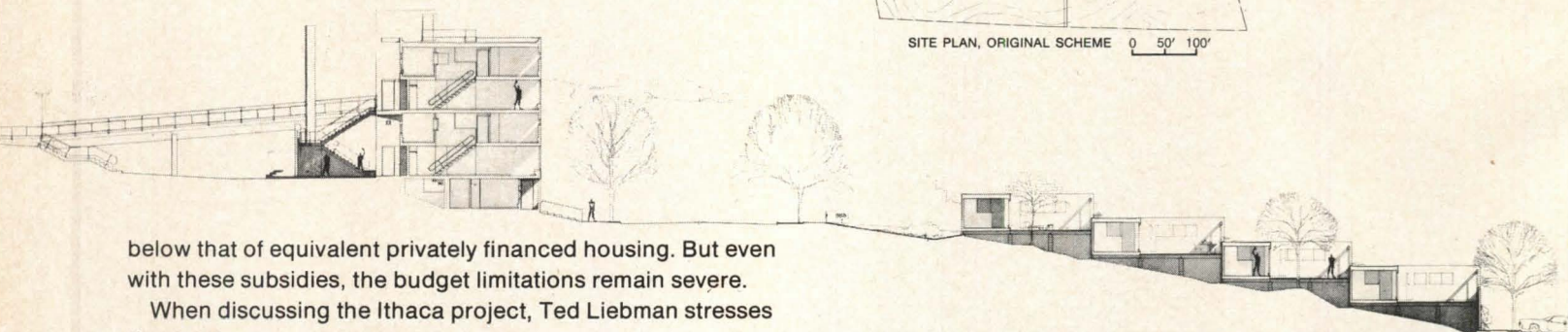
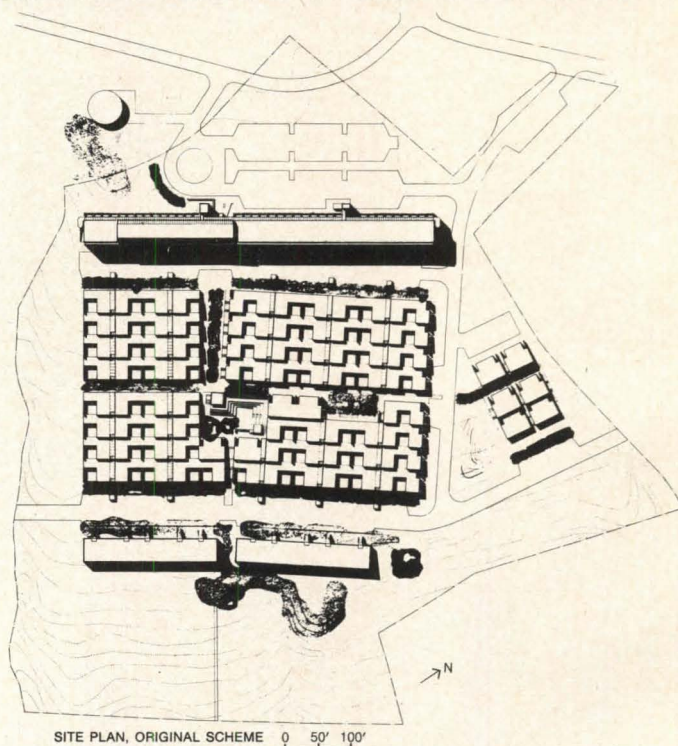
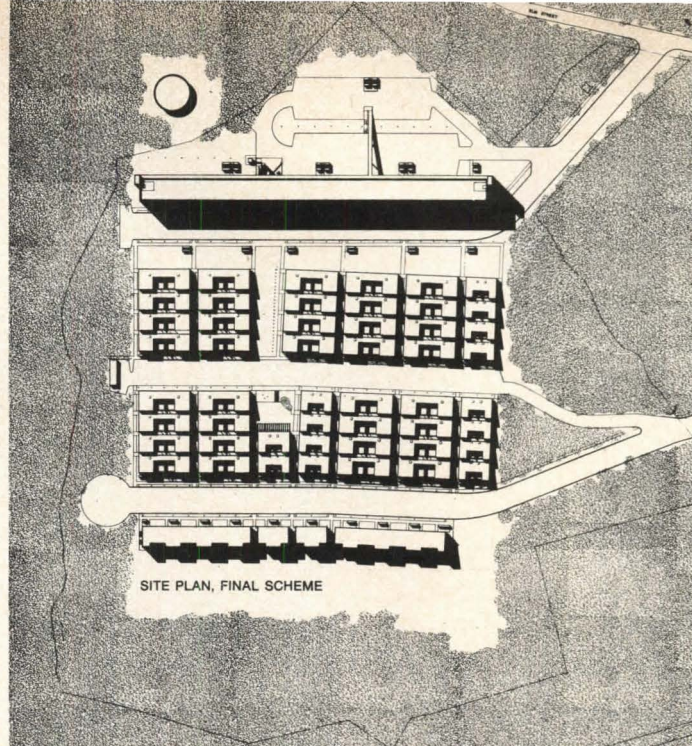
Atrium units between the mid-rise building and townhouses occupy most of the site; each has an enclosed courtyard and private entry off stepped street.

Scattered site hill town

town Ithaca, every family unit has a private outdoor living/play area, every unit has its own private entrance, no residents can see into any other's living area and, because there are no double-loaded corridors, all 235 units, except for the 37 one-bedroom lower-level units, have cross ventilation (an important consideration for families who may not be able to afford the luxury of air conditioning). Every unit is carpeted and has well-sized, handsomely appointed kitchens and bathrooms, and every apartment has several views, including at least one panoramic vista across the wide, open valley. That this has been accomplished at a density of 15 units per acre, with 120 percent on-site parking, is no small feat. It is, in fact, additional proof which should no longer come as a surprise to anyone, that through its sponsorship of well-designed housing the New York State Urban Development Corporation continues as perhaps the country's most enlightened public housing authority.

How does the UDC do it? Their Chief of Architecture, Ted Liebman, answers quite simply: "We hire good architects." But he's quick to admit there is more to it than that. "We have to juggle a complicated formula," he says. "We work from what we can afford to pay for a project, to what people can afford to pay in rent, or, put another way, our real problem is how to build housing for those who need it most, at a rent they can comfortably afford." The UDC, which was created by State Legislature only four years ago, has been doing just that at a rate of \$1 million a day.

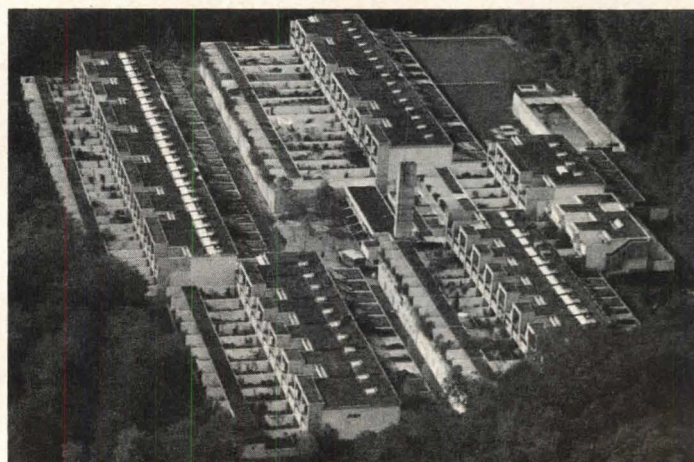
While the Corporation has been given extraordinary powers and resources to do the processing and "packaging" of housing developments, it has no subsidies of its own; it must seek these at the state and federal levels. Through a combination of programs that permit low interest rates on bonds and mortgages and also allow rent subsidies to be paid to housing owners or to local public housing authorities, the UDC has been able to provide housing at rents substantially

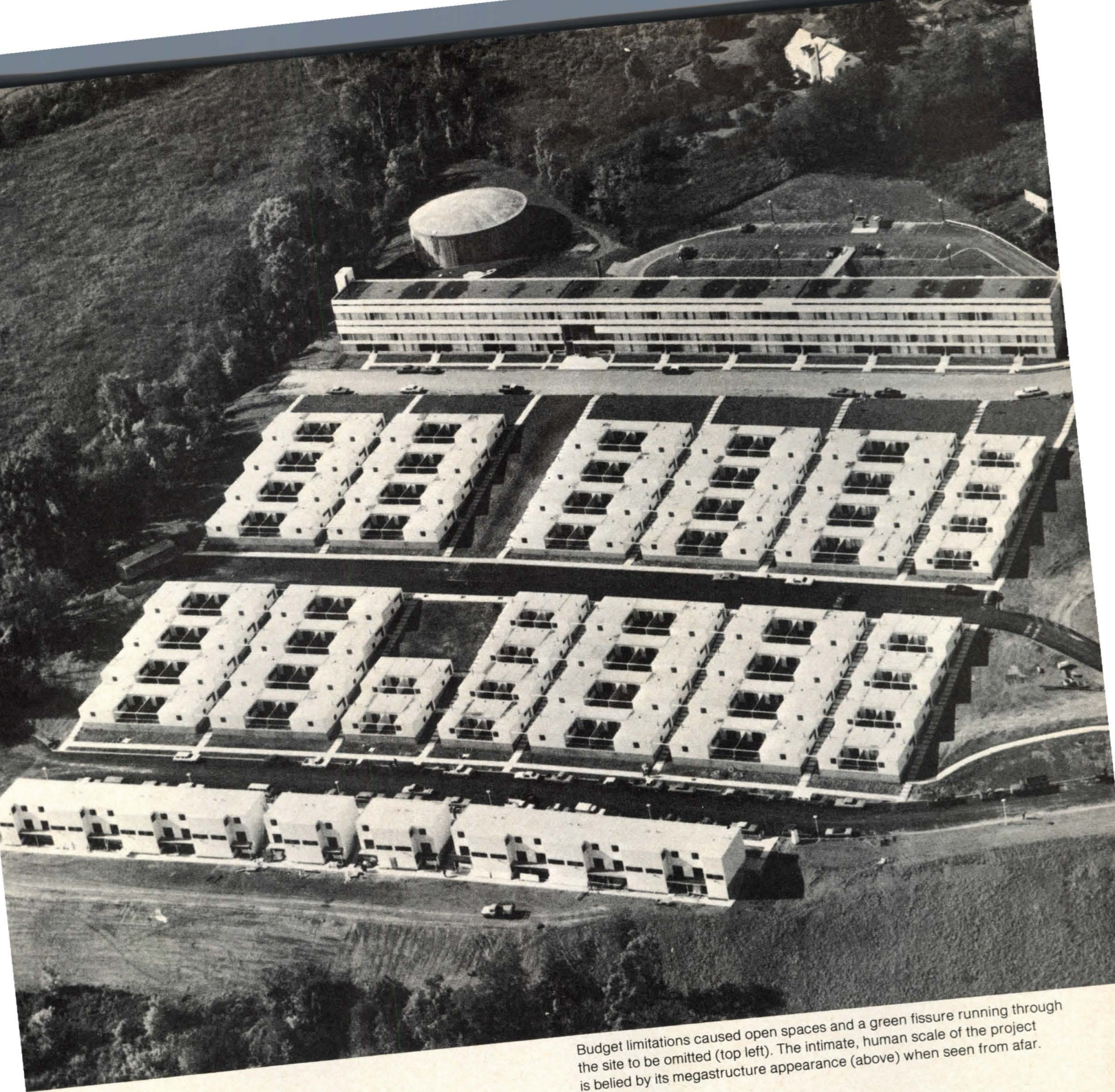


below that of equivalent privately financed housing. But even with these subsidies, the budget limitations remain severe.

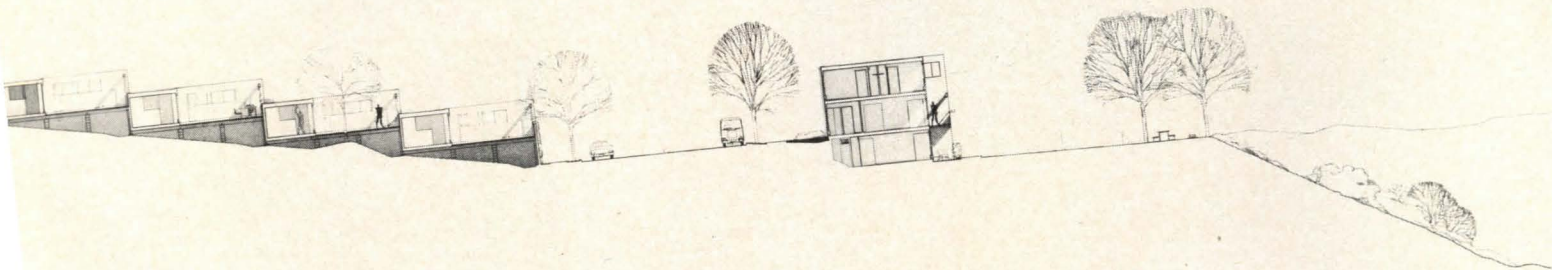
When discussing the Ithaca project, Ted Liebman stresses that it is important to acknowledge what it is not. It is not, he reminds us, high-rise or even clustered housing, either of which, at this density, could not have provided the obvious benefits of privacy, ventilation and views found in this particular scheme. It is, he points out, "an experimental ex-

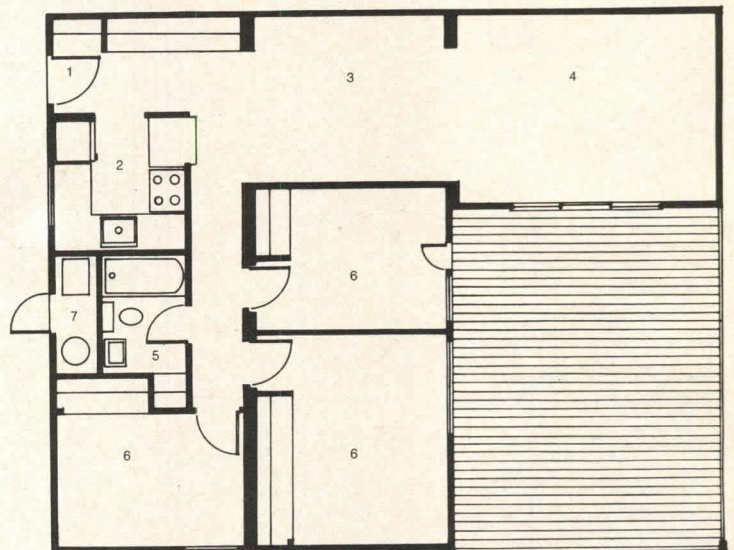
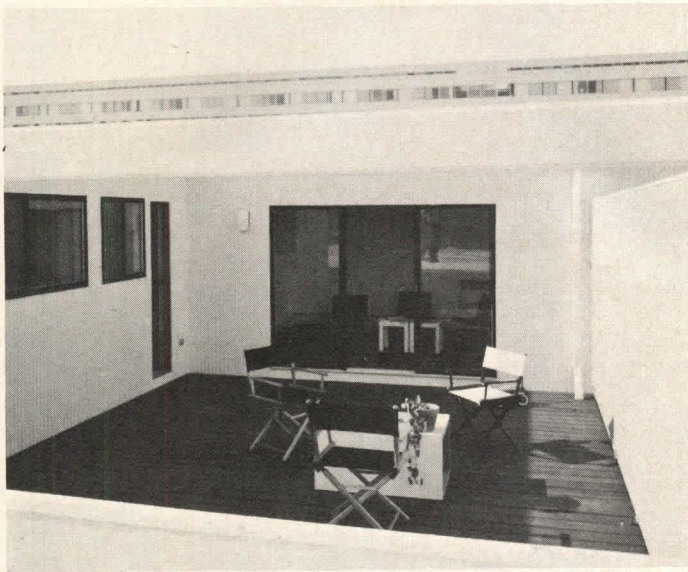
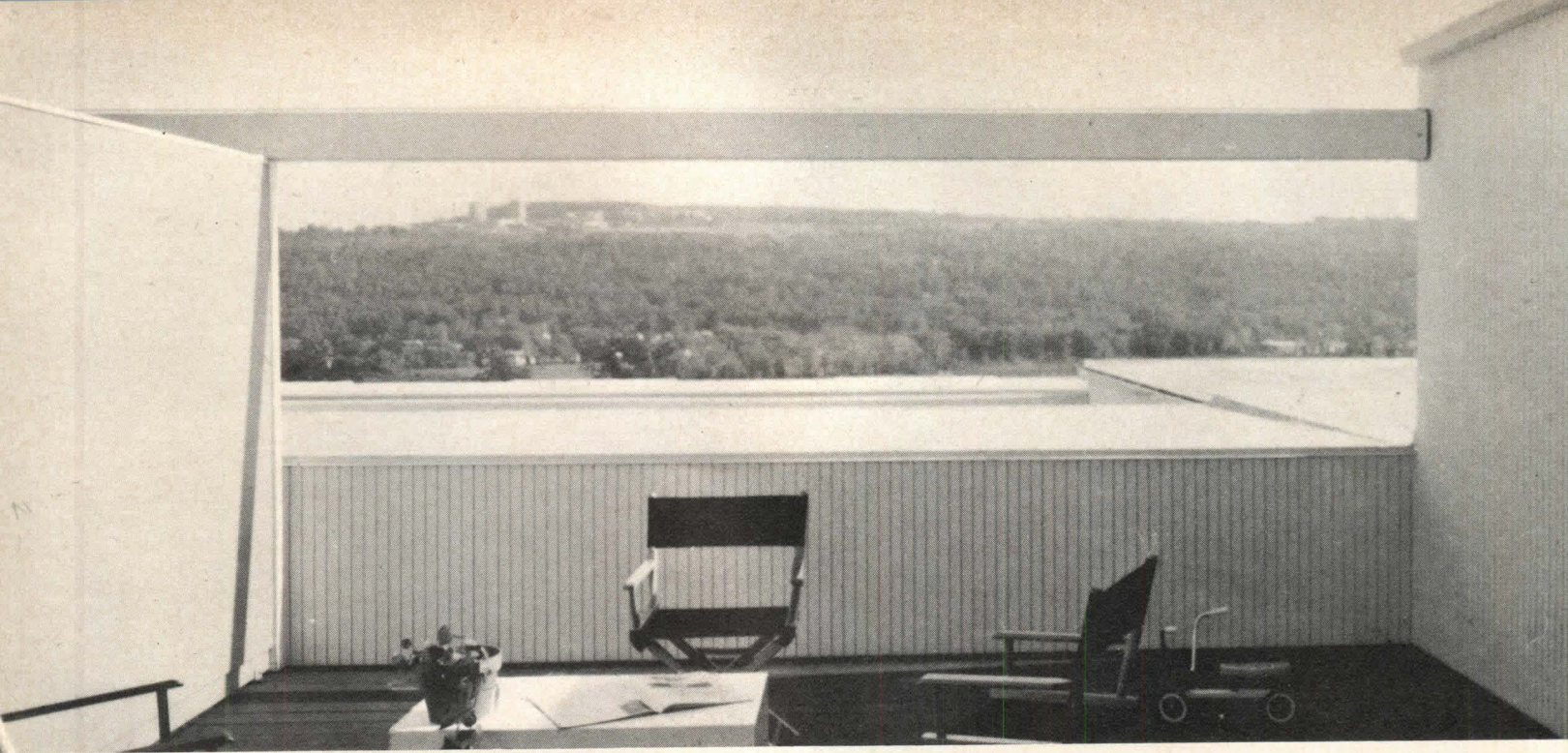
Although rare in the U.S., high-density low-rise housing of this type is more common in Europe. Atelier 5's Halen housing (right) near Bern, Switzerland, completed in 1961, was an influence on Seligmann's scheme.



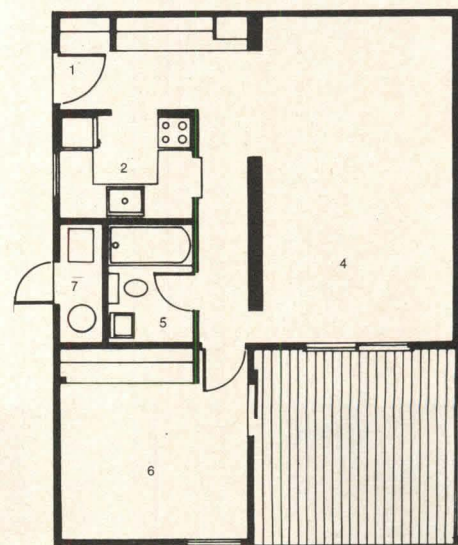
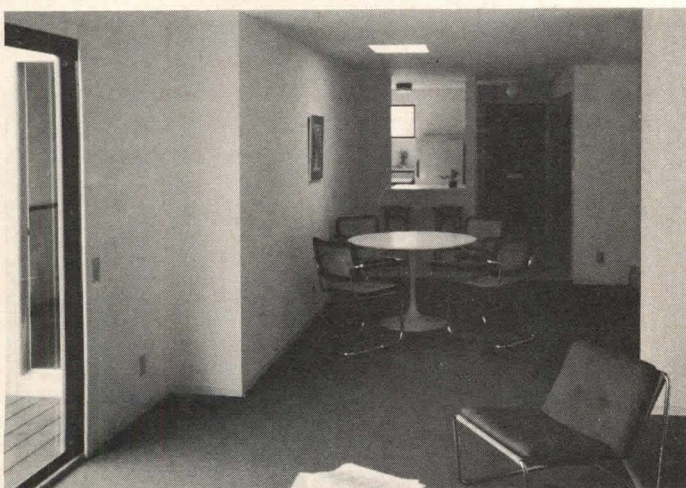


Budget limitations caused open spaces and a green fissure running through the site to be omitted (top left). The intimate, human scale of the project is belied by its megastructure appearance (above) when seen from afar.
Photo: Lyonfoto





3 BR ATRIUM UNIT PLAN



1 BR ATRIUM UNIT PLAN

- Legend**
- 1 Entry
 - 2 Kitchen
 - 3 Dining
 - 4 Living
 - 5 Bath
 - 6 Bedroom
 - 7 Utility
 - 8 Utility Chase
 - 9 Storage
 - 10 Porch

Atrium units (this page) are organized around private, outdoor spaces overlooking the valley. In both one- and three-bedroom plans, entry to atrium is through living room or bedroom. Wherever possible, as in the three-bedroom unit (above), interiors are designed for largest possible visual dimension to increase sense of spaciousness.

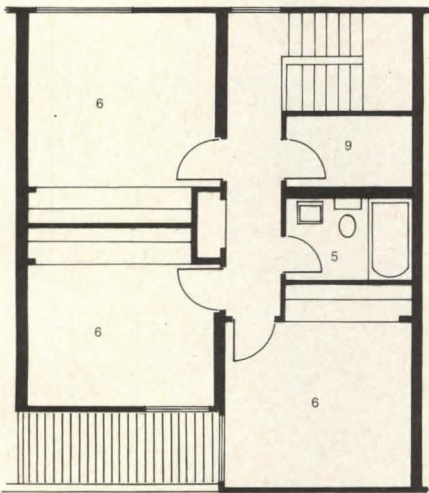
Scattered site hill town

amination of the aggregations of the single house."

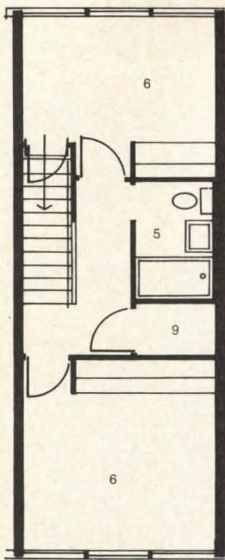
In this project, the likeness to single-family housing is fostered by a system of pedestrian streets connected directly to the private entrance of each unit. At the top of the sloping site there is a long, five-story building of two-bedroom duplex units at grade level; similar units above them are reached either by a bridge extending from the upper parking area or by stairs toward the other end of the building, which lead directly to the elevated "street" serving those units. This mid-rise building is a gateway to the whole complex, and after passing through its main portal one comes to the rear, where one-bedroom units occupy the lower-grade level. Farther down the hill there is a dense grouping of one-story atrium units aligned on a steep, grid system of streets, where each of the one- and three-bedroom family units has a private entrance and private outdoor living area. In a line of three-story buildings at the bottom of the site there are four-bedroom duplex

family units with private outdoor balconies. The lower-level one-bedroom units below them have private entrances on the rear sides of the buildings. Throughout the complex, the interiors of the FHA minimum-standard dwellings have been carefully designed for the largest possible visual dimension to increase the feeling of spaciousness.

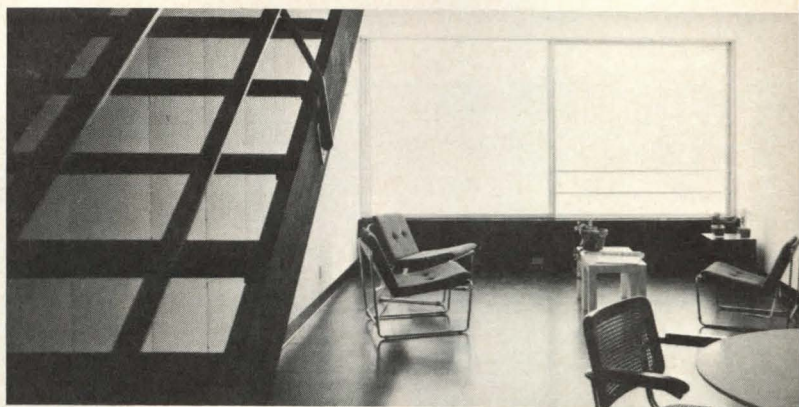
When Seligmann talks of the project he becomes his own severest critic; he remembers many of the niceties that had to be eliminated because of the stringent budget limitations. He is the first to admit that the whole project is rigid and lacks adequately developed communal outdoor play and gathering areas. But to loosen the present configuration, while maintaining the same density, would have resulted either in high-rise construction or in fewer units. In one case this could bring the problems commonly associated with high-rise buildings and would negate some of the advantages of this scheme, and in the other case, it would have resulted in a



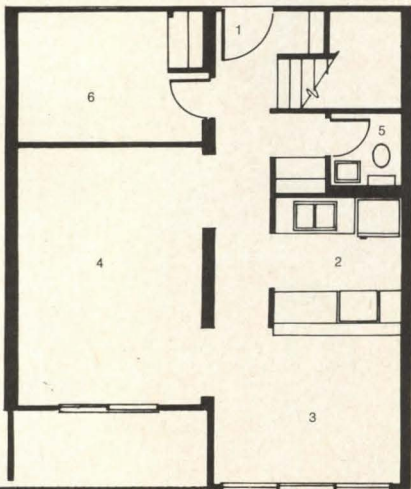
4 BR DUPLEX PLAN, UPPER LEVEL



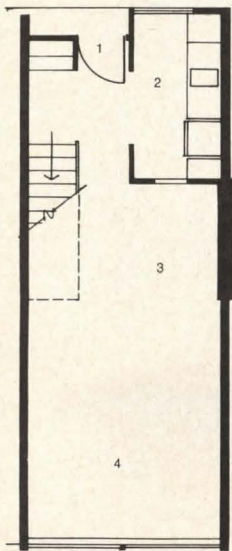
2 BR DUPLEX PLAN, UPPER LEVEL



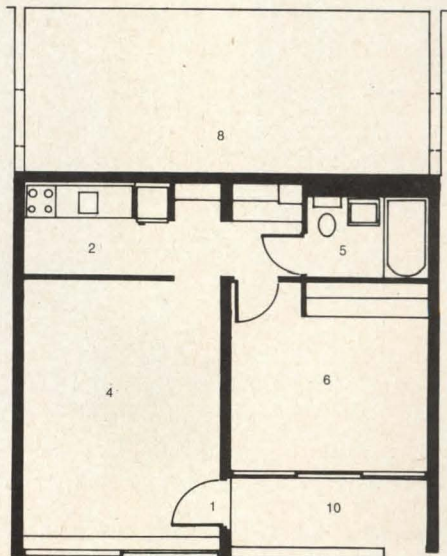
In the four-bedroom duplex units at the bottom of the hill, sliding glass doors open onto outdoor balconies. Originally, the two-bedroom units in the mid-rise building were to have inset balconies but budget restrictions eliminated them; the living room wall was brought flush to the exterior plane and glazed (photo). Under the mid-rise building and the townhouses, lower-level one-bedroom units extend into the ground through half a floor.



4 BR DUPLEX PLAN, LOWER LEVEL

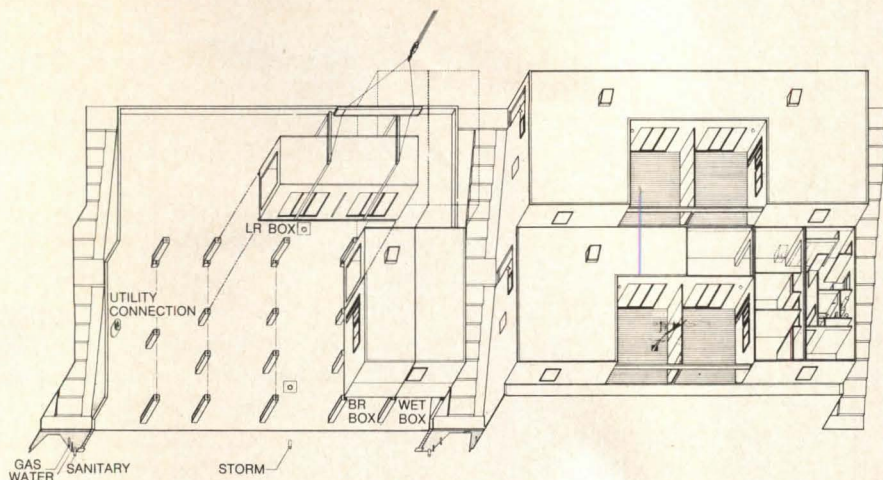


2 BR DUPLEX PLAN, LOWER LEVEL

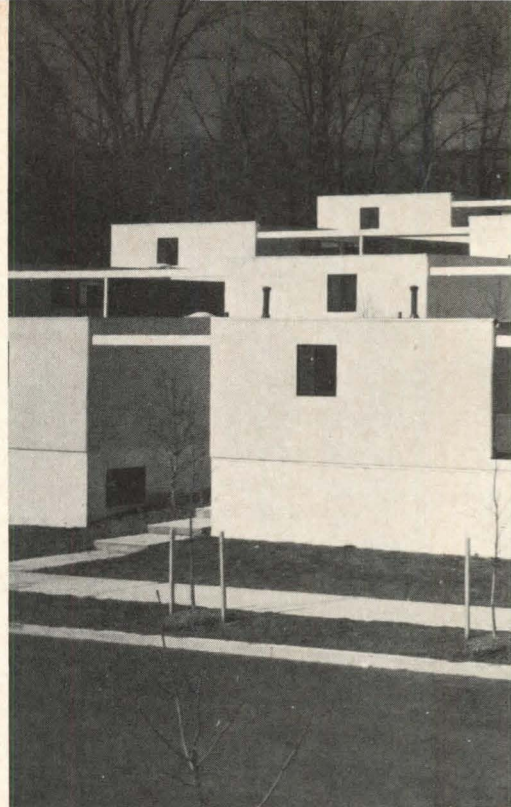


1 BR LOWER-LEVEL UNIT PLAN
0 6' 12'

Scattered site hill town



The steel-frame and plywood atrium unit modules were factory assembled and shipped over 200 miles to the site where they were crane-lifted onto concrete piles. Diagram shows erection procedure of three-bedroom unit.



Main portal through mid-rise building (above) leads to lower-level units, to management office, community rooms and laundries. The openings on the side of the atrium units (right) go to utility and mechanical spaces.





higher per-unit cost. Other things had to go, too. The duplex units in the mid-rise building were originally designed to have outdoor terraces. The private courtyards in the atrium units were designed to be at grade so the tenants could plant or pave them as they wished; but for economy the garden became a deck. In the very first scheme, when the atrium units were conceived as concrete rather than as steel-frame and plywood units, their roofs were to be earthed over and planted with grass. The vertical access streets were to have glazed roofs. In addition, there was to be a green fissure running from the water tower at the top of the hill to the canal at the bottom. It was to be the central east-west connection and to have along it a playground, a green space for toddlers and elderly farther on, then a large playground and multi-purpose space, culminating in a spacious lawn and picnic area.

It is unfortunate that budget limitations do not allow more amenities in publicly assisted housing. There is a lesson to be learned here though, because even with the restrictions, the combination of Seligmann's overall concept and individual-unit plans results in a surprisingly satisfying urbanistic housing scheme. And as the years go by one suspects that it will mellow quite nicely. One of the things that will contribute toward that is the vast amount of new landscaping and planting that has been put in recently. On what was originally a barren site—a pig farm in fact—each pedestrian street has been lined with a different kind of blossoming tree; around the site and along the main streets 2000 pine and spruce seedlings have been planted. A playground with a wading pool is anticipated at the center of the atrium units, and the picnic grounds at the bottom of the site overlooking the valley have recently been terraced and planted. If all of this will not be enough, there is the consolation that vast woodlands surround the site in every direction.

Although this project may not be the most ideal housing ever built, the direction it takes must surely rank it among the most encouraging public housing one is apt to see. And one thing seems certain: that due to its emphasis on the idea of the single house, with its sensitivity to and respect for the individual's privacy, one suspects that the project could not encourage the crime, delinquency and vandalism common to so

many public housing projects. If there is a direct relationship between housing type and incidence of social unrest—and evidence increasingly seems to indicate that there is—it seems unlikely that it will ever be seen here. [DM]

Data

Project: UDC Ithaca Scattered Site Housing Project, Elm Street site.

Architect: Werner Seligmann & Associates; job captains, Hansueli Jorg, Bruce M. Coleman.

Program: a scattered-site-housing, high-density community where communal spaces are scaled to pedestrians and where family units have private outdoor living areas; for low-, moderate- and middle-income renters. The emphasis, similar to that of a European hill town, is on dwellings of maximum privacy and view, without sacrificing the inherent urbanity of a tightly grouped site organization.

Site: the site, selected by UDC, is on West Hill, a prominent hillside within walking distance of downtown Ithaca, N.Y. Originally a pig farm without trees, the slope of the site and the view from it were the primary influences on the design. At the top of the hill, a five-story mid-rise building contains 80 two-bedroom duplexes and 20 one-bedroom units; descending the hill below it are 28 one-story one-bedroom units in combination with 72 one-story three-bedroom units; and near the end of the site a line of three-story buildings contains 18 four-bedroom duplex units and 17 one-bedroom units directly under them.

Structural systems: the mid-rise building consists of 21 bays between expansion joints off identical structural units. Each gang-formed, poured-in-place concrete bay is 36' x 24'-8" x 16' and contains two duplex units. Within each bay, a center, wood-stud load-bearing wall separates units and, with other first-floor load-bearing wood-frame walls, supports the second-level wood-panel floor; second-floor wood partitions are nonload bearing. All other units, except for the one-bedroom lower grade units, are factory assembled modules with steel-frame chassis, plywood skin.

Major materials: mid-rise building; concrete bays with wood-stud and gypsum walls, plywood exterior end walls. Modular units; steel-frame chassis of plywood skin with metal-stud and gypsum walls. Carpeting throughout, with vinyl tile in appropriate areas.

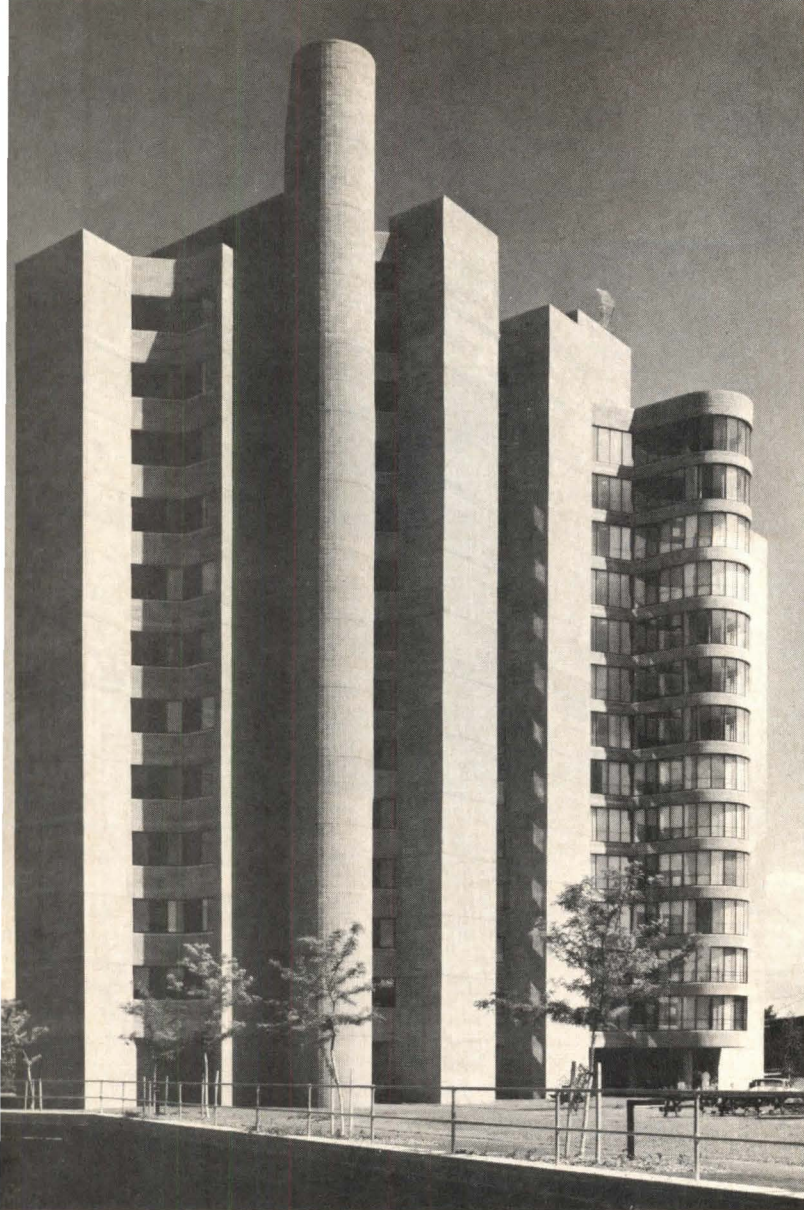
Mechanical systems: the mid-rise building is equipped with a central hot water boiler, each atrium unit has individual water heating system, four-bedroom duplexes have hot water boiler for each block; utility runs are buried under the pedestrian streets.

Consultants: Galson & Galson, mechanical; Severud-Perrone-Strum-Conlin-Bandel, structural; Dr. Donald P. Greenberg, structural consultant.

Client: The New York State Urban Development Corporation.

Costs: \$7,098,141; \$24.53/sq ft.

Photography: Nathaniel Lieberman; except pp. 64, 65; Bruce Coleman; pp. 68, 69.



Torrington Tower

A non-box for the elderly

Built on the site of an abandoned factory, a 14-story public housing tower for the elderly serves as a new focal point for an old New England industrial town

As if to prove that public housing needn't be stripped of "design," Ulrich Franzen & Associates have provided Torrington, Conn. with a 200-unit tower that is definitely not a "box for old people." Instead, it is a sculptural statement with 72 sides (true vertical planes) and two semicircular projections that house, on one side, stairs, and on the other, solariums that serve as gathering places for the residents of each floor.

Franzen chose the tower shape rather than a low-rise town-house concept because, he reasons, it is easier for residents to visit each other via elevator than via wet or icy sidewalks and stairs. He also intended the building to read as a point structure marking the downtown area, now in the process of renewal. The scale of the surrounding buildings is mixed, with small buildings and large old factory structures. One of these, a long-abandoned-and-reduced-to-an-eyesore pile of rubble, provided the site itself. What was once ideal for manufacturing is now ideal for housing the elderly; tenants are close to downtown shops and activities, and the grounds have, in effect, become a riverside park.

Although the project is large, especially for Torrington (population 31,952), efforts were made to break up the interior spaces for both privacy and informality. Living units are small, but the corridors, which are bent to prevent their seeming "institutional," lead to the solariums on each floor which are intended to be extensions of individual living rooms.

The site itself proved difficult to prepare. Once the rubble had been removed, the rock elevations, which varied between 5 ft and 32 ft below grade, called for a two-step foundation system. Concrete piers were used in the high rock areas, and steel piles were driven elsewhere. A conventional flat plate floor structure was chosen not only for economy and its minimum construction depth, but because it permits irregular column arrangements that could conform to the architectural space layout.

Exterior walls are warm gray concrete block scored 4 in. o.c. Interior public areas are the same block, while partitions in the living units are gypsum board, movable if necessary to change the room layouts. Windows are sliding aluminum sash



Solariums overlook grounds and town.





A non-box for the elderly

and the entire building is carpeted.

A total energy system supplies all light and power, space heating, domestic hot water heating and cooking; provision has been made for future air conditioning by means of self-contained units in all apartments and public spaces.

The apartments are equipped with several safety features: emergency pulls automatically set off a flashing light and unlock the apartment door; bathroom doors can open both ways; clotheslines above the tub are retractable; intercom systems in each apartment and telephones in the elevators keep tenants in touch with the main office; venetian blinds open by rotating, not by pulling. Each apartment, has two exposures, giving different views from the angled-in windows.

The ground floor houses a meeting room, clinic, laundry room, craft workshops and offices for the housing authority, in addition to the lobby and mail rooms. Outside, walkways lead to a promenade along the riverbank; a pond, a fountain and much of the planting have been privately donated. [RR]

Data

Project: Torrington Towers, Torrington, Conn.

Architect: Ulrich Franzen & Associates; Samuel Nylen, associate in charge.

Program: 178 efficiency and 22 one-bedroom units for the elderly, federally subsidized.

Site: formerly occupied by an industrial plant, at riverside near central business district; difficult subsoil conditions.

Structural system: poured concrete, flat plate floor system.

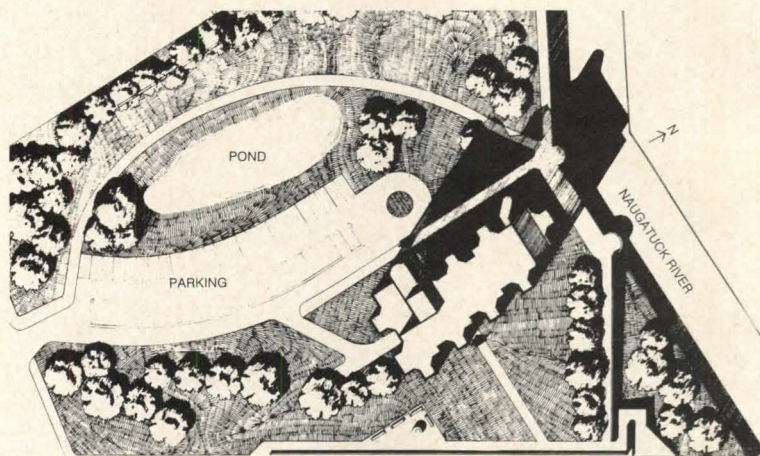
Mechanical system: total energy system supplies all light and power for space heating, ventilation, domestic hot water, cooking; apartment heating is by baseboard units; provision has been made for future air conditioning. Plumbing includes Sovernt single-stack copper drainage and vent system.

Major materials: poured concrete, scored concrete block, gypsum board partitions, carpet, black aluminum sliding sash.

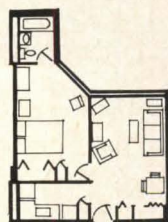
Costs: \$4,285,000, or \$27.88/sq ft, including abnormal site conditions but excluding site development and building equipment.

Consultants: Aaron Garfinkel & Associates, structural engineers; Aaron Zicherman, mechanical engineers.

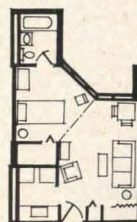
Photography: George Cserna.



SITE

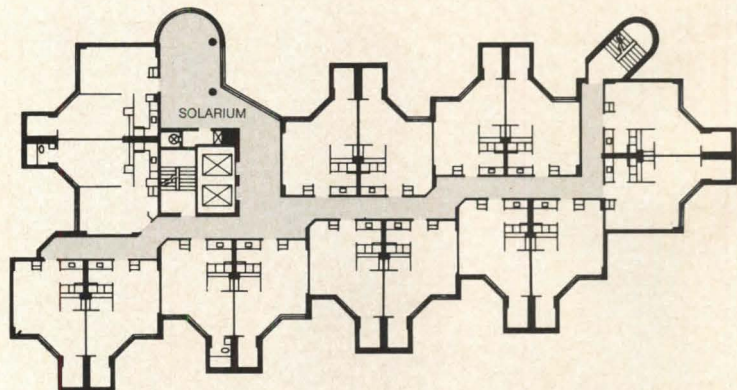


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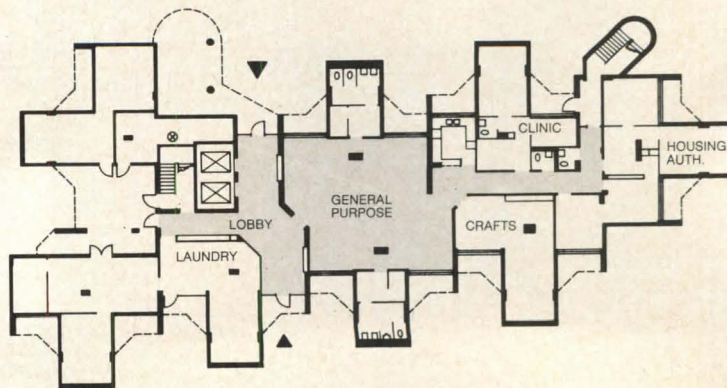


EFFICIENCY

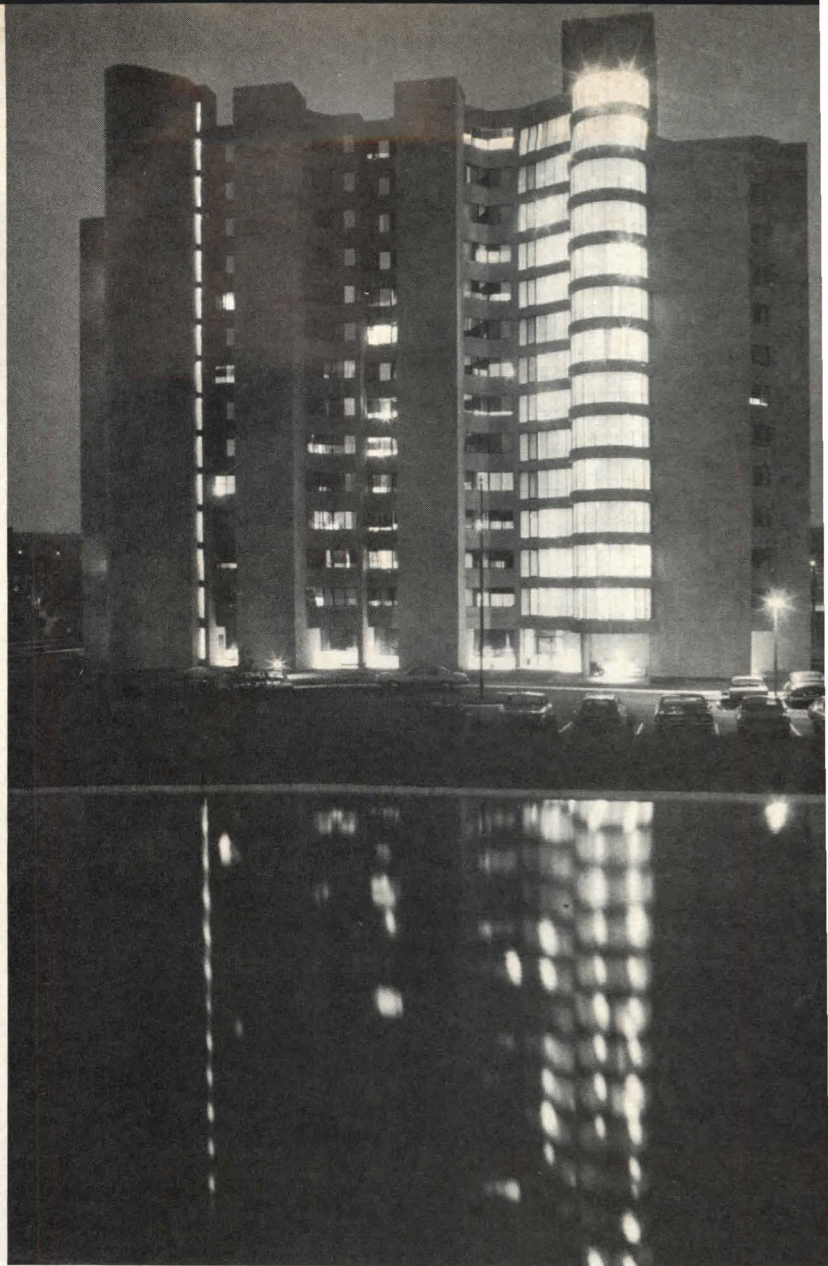
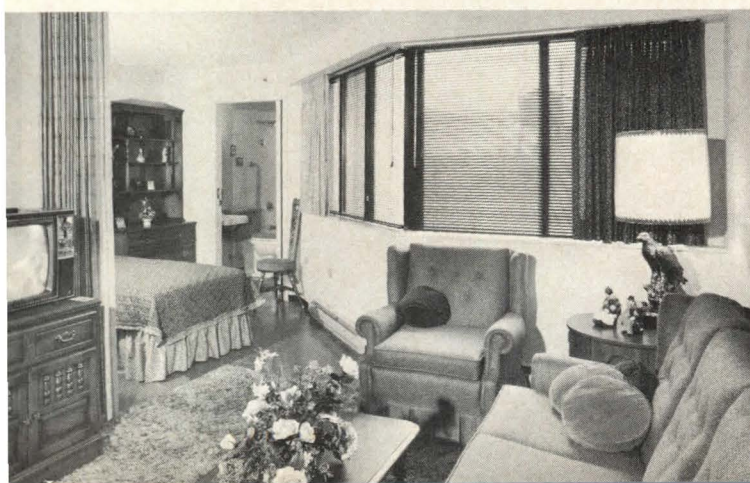
Tower, dominating Torrington skyline, has 22 one-bedroom and 178 efficiency units. Ground floor has offices for the housing authority as well as services for tenants.



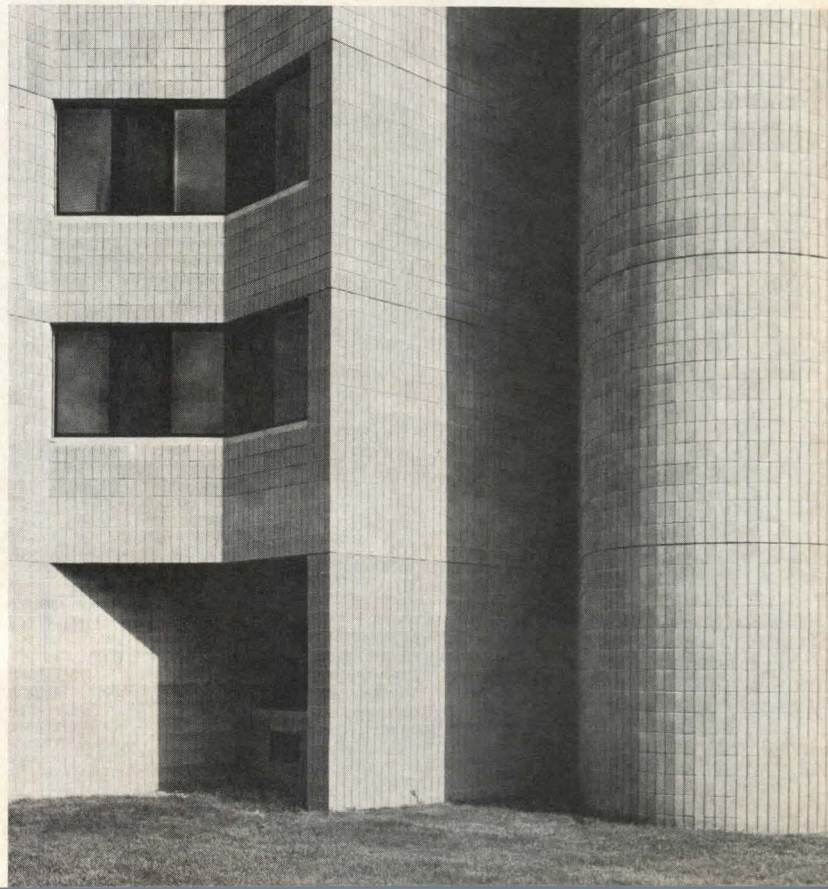
TYPICAL FLOOR



GROUND FLOOR 0 12 24'



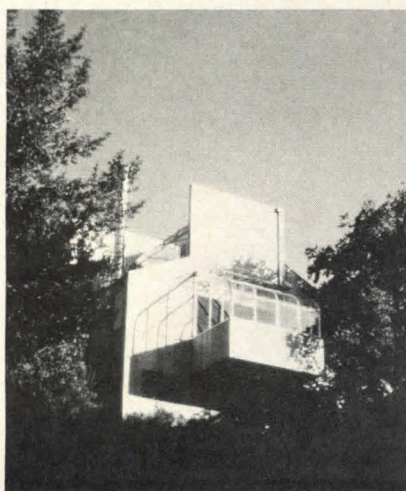
Solarium lights are reflected in the pond at night; scored concrete block gives texture to exterior (below) and to lobby (top left). Solarium is shown before addition of plants. One-bedroom units have different views from bed and living rooms; efficiency (bottom) has angled windows.





Lozano house

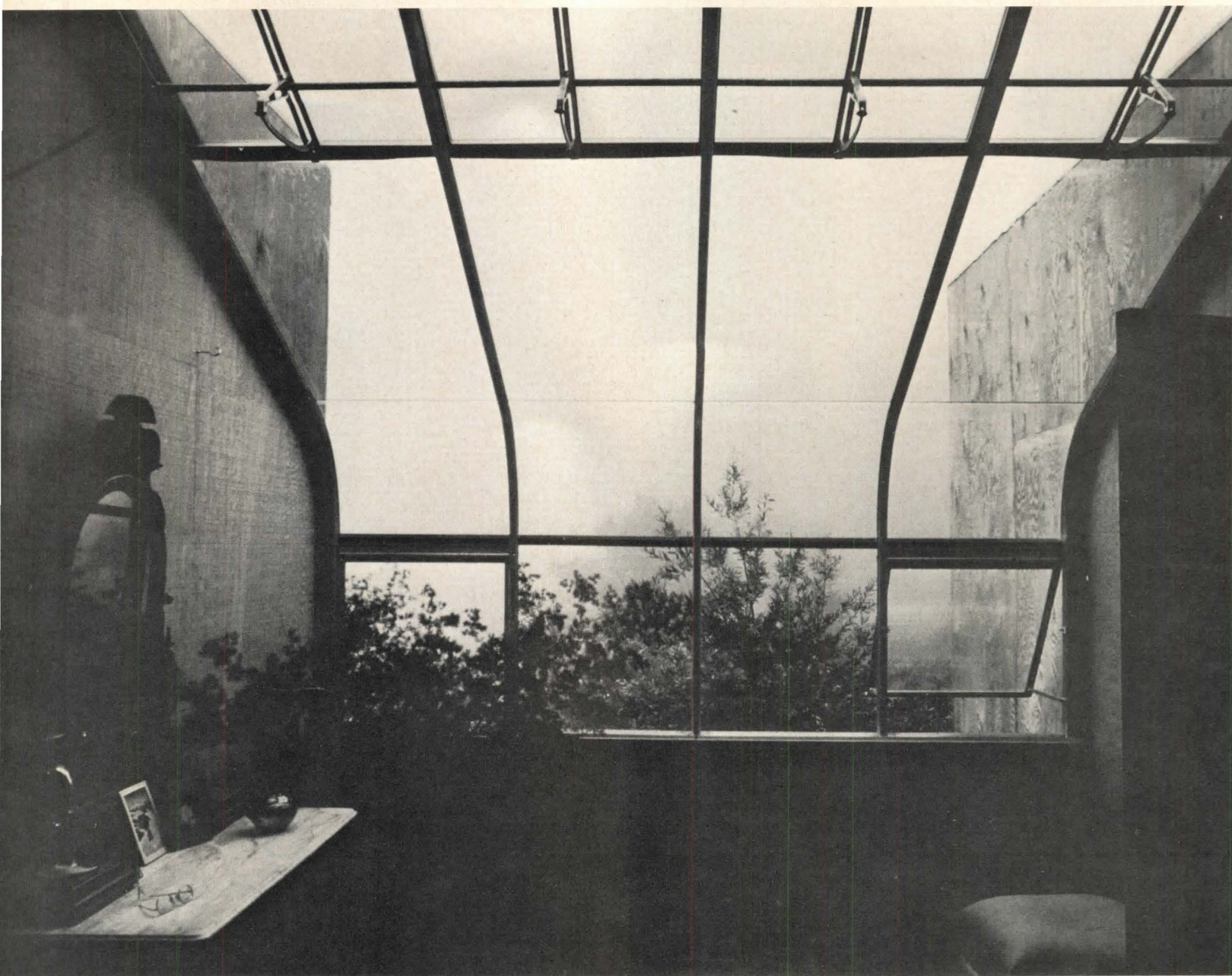
Light from a book



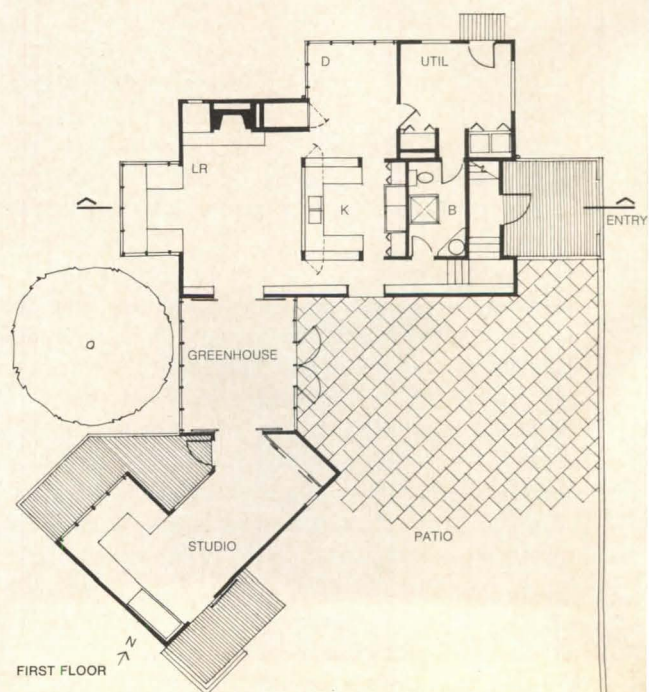
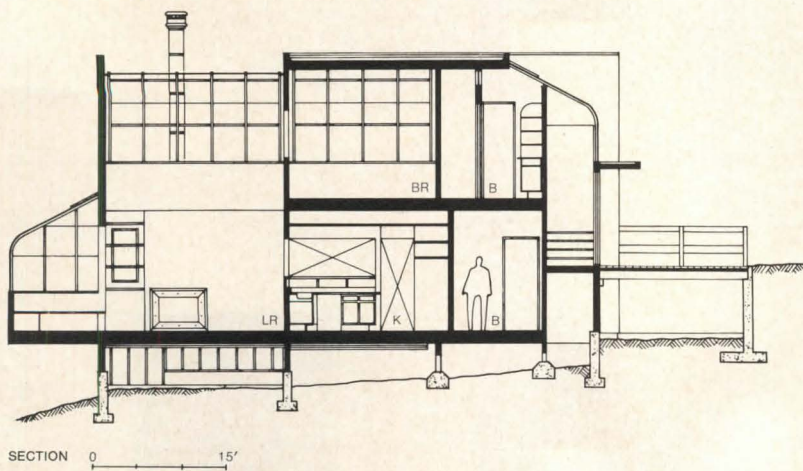
California house design makes the most of standard pieces to give architectural expression and satisfy the owners' requirements for less than twenty percent of project cost

Catalog design? Not exactly, but the most prominent elements of a house near Los Gatos, Calif. are from the Lord & Burnham catalog. Bob and Judy Lozano, graphic artists and high school art teachers, asked architect Peter Behn of Behn & Gavin to design a house for them that incorporated wood, a greenhouse, light and views. Starting with the greenhouse request, Behn proposed the use of similar standard units to provide light-filled living spaces as well. Resawn cedar plywood, left to weather to a silver color, was chosen as the





Greenhouse components and resawn cedar plywood, used in large sheets, are the major elements of the house. Interior detailing was done without trim to enhance the impact of the owners' works of art to be displayed there.



Light from a book

wood, and the site, seven acres surrounded by redwoods on the north slope of the Santa Cruz Mountains, provided the views.

However, the owners' budget and contractors' prices did not quite meet. When bids came in too high, the traditional owner/architect/builder roles were abandoned. The owner became owner, contractor and builder; the architect became a builder as well. With one additional carpenter from Berkeley, "we went to the site, pitched tents and started building," Behn says. "In four months Bob, the carpenter and I had the house closed in, and then Bob and Judy finished the interior on weekends and evenings during the winter." The owners did, however, subcontract the plumbing, electrical and sheet metal work. With the addition of some shades that Judy is designing for the bedrooms and some corrective measures for a stubborn leak, the house seems to have settled in very nicely. [JM]

Data

Project: house for Robert and Judy Lozano, in the Santa Cruz Mountains near Los Gatos, Calif.

Architect: Peter Behn of Behn & Gavin.

Program: design a year-round house for graphic artist/teacher couple, incorporating wood, a greenhouse and as much light as possible.

Site: seven acres on the north slope of the Santa Cruz Mountains, bordered by redwoods.

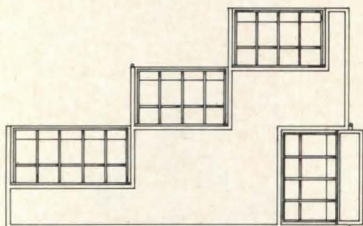
Structural system: standard wood frame, on reinforced concrete foundations.

Mechanical system: forced warm air.

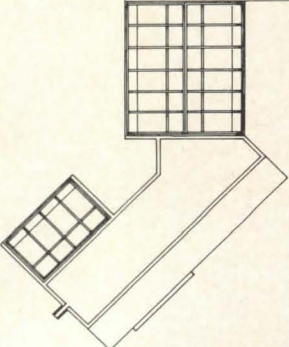
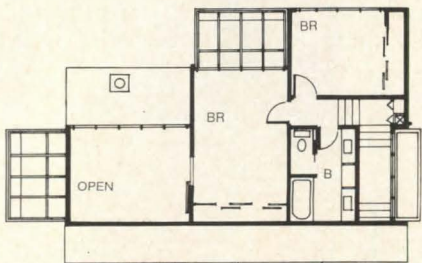
Major materials: exterior, 3/4" resawn cedar plywood and standard greenhouse units; interior, 3/4" resawn cedar plywood without trim, white oak and vinyl asbestos tile floors.

Costs: approximately \$40,000 (\$19/sq ft).

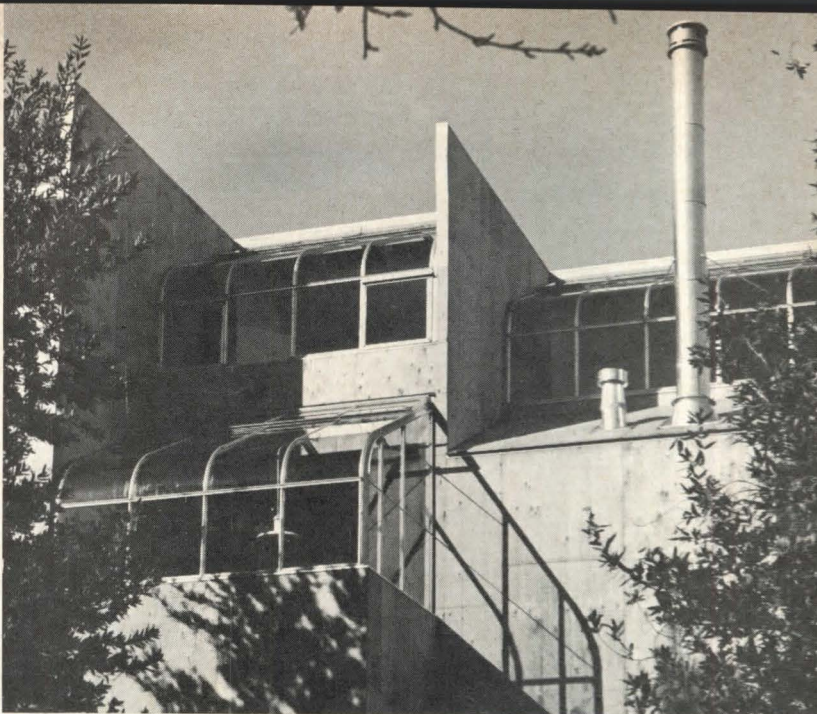
Photography: Peter W. Behn, except right, top and bottom, p. 77 and lower right, p. 79 Stephen Green-Armytage, courtesy of American Home Magazine.



ROOF PLAN



SECOND FLOOR



Urban redevelopment

To save a fabric

An impressive series of analyses has given residents of some aging sections of Toronto new tools with which to halt a steady high-rise march while preserving a heritage

There are only a few metropolitan areas in North America that still have large old residential sections within walking distance of the city core. Architects A.J. Diamond and Barton Myers have set out to prove that those in Toronto need not be displaced by high-rise apartments. In addition to their social concern, they are using the developers' own weapons: hard-headed cost/use analyses.

Their fight is based on a number of premises aimed at the way development has proceeded in Toronto.

First, say the architects, "We have to challenge the notion that land in these areas has some finite, intrinsic value. Revenue expectations give it a value, but as a commodity, there

Composite streetscapes (below) or Sherbourne Street (top and bottom) and Henry Street (center), from two different studies.



are three orders of value: potential, allowable and 'what can I get?' Developers scream about costs, then buy land, get it up-zoned and make their profits." Further, city by-laws encourage (in fact, almost mandate) certain building configurations, land-use figures and parking quotas that all but assure high-rise apartment developments. Setback, open space and density figures, liberally applied, will supplant existing housing patterns almost by definition.

Parking allocations, based on general assumptions, often fail to take into account an important aspect of the areas in question: the proximity of the neighborhoods to the city has historically drawn people because an automobile was unnecessary. Over the years, various ethnic groups, immigrant groups to Toronto—not able or anxious to have a car—have settled as close to their work downtown as possible. Rules for parking, which might be prudent for apartment units farther away, are a paradox when applied in these neighborhoods

(unless resident displacement is assumed).

Accepting the notion that density must increase to stave off economic pressures, Diamond & Myers have set out to prove that destroying the neighborhood fabric is not a prerequisite. In their first study, the architects chose a block near downtown that they considered a prime target for development. Like many of the surrounding blocks, it is made up of single-family houses 60 years or more old, but structurally sound. There are alleys, or lanes, through the centers of the blocks, serving adjacent garages and open parking. Standard procedure would dictate that a developer acquire the block, level the existing buildings and build apartment towers conforming to city open space, setback and parking rules. Diamond & Myers see three possible counterproposals, all aimed at keeping scale down, privacy, social amenities and density up. Two of the schemes would provide the 70 to 80 dwelling units per acre that developers would want, and the other could reach



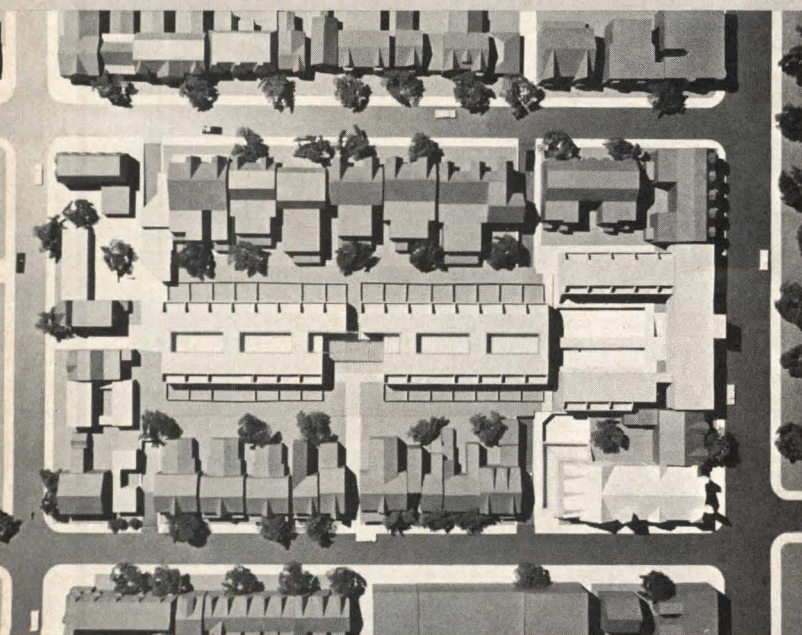
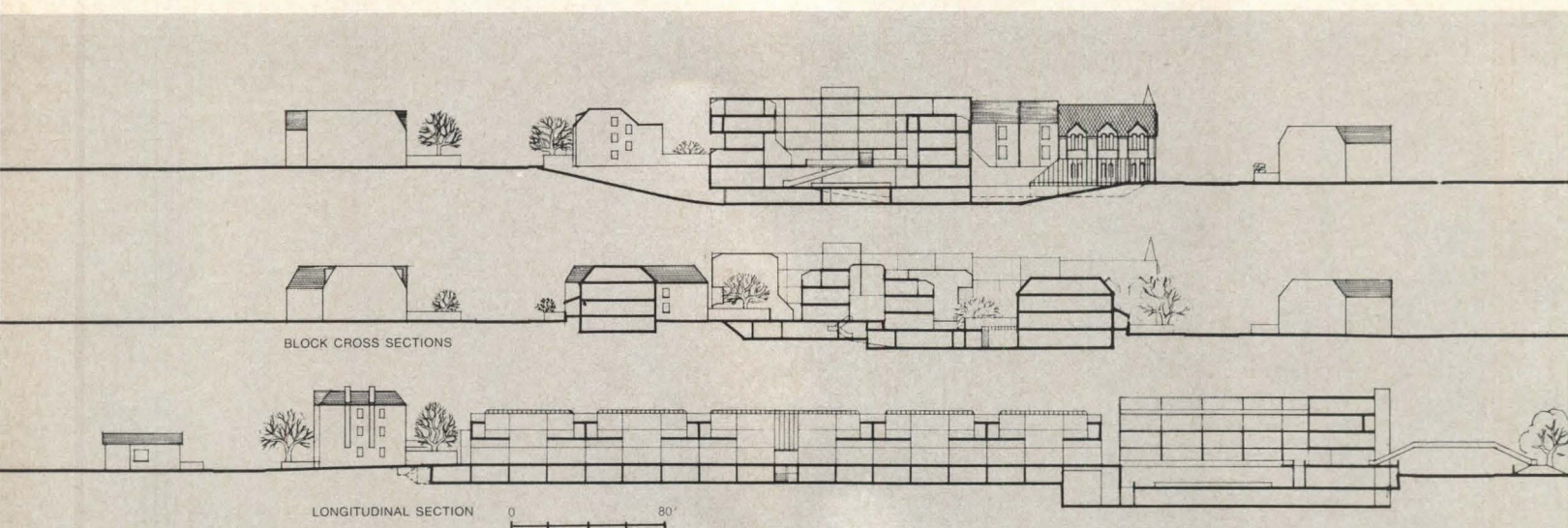
To save a fabric

56. The two with the higher density would require that the block be cleared for new construction, but the third proposal would not. A low scale, however, is common to all three.

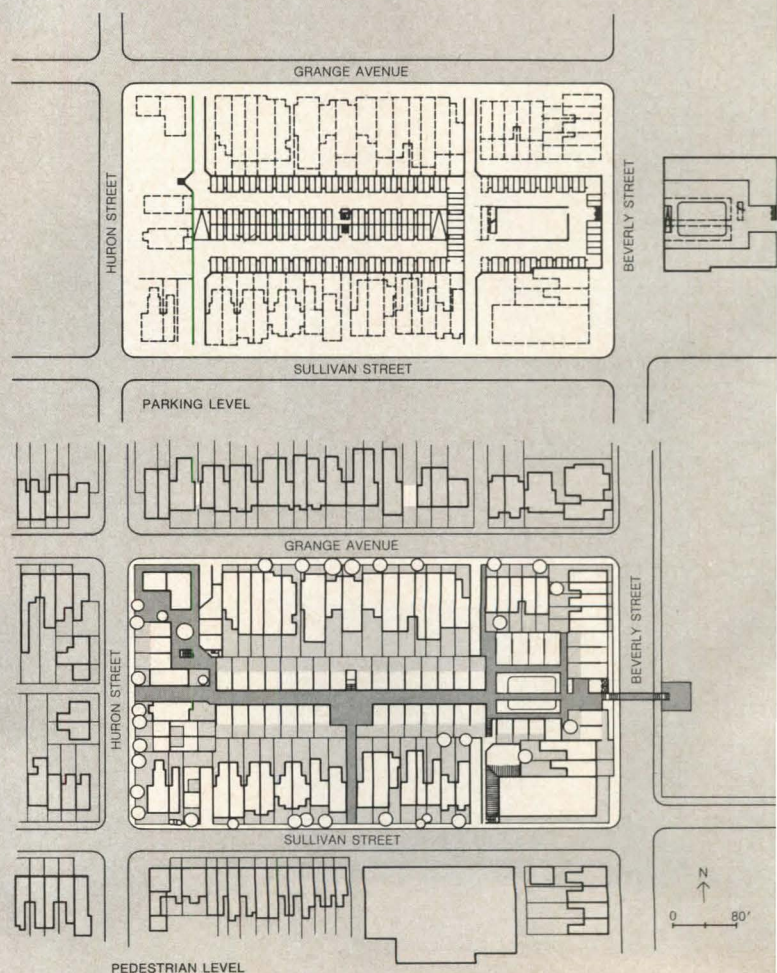
One of the two new-construction schemes would combine low stacked townhouses with medium-rise (10 story) apartments. In the other, "arcade" housing in two six-story blocks would produce the same 80-dwelling-unit-per-acre capacity. Shopping facilities could be located along the enclosed arcade spaces, sharing the first floor with two-story family townhouses. Parking, in all three schemes, would be below grade. Above the townhouses, the third and fourth levels would be

for two-story apartments and the fifth and sixth levels would contain bachelor and one-bedroom apartments. Each ground floor unit includes private garden space, and upper units gain a private courtyard through the stepped-back building configuration. An apartment developer, because of open space incentives, would be forced to put up one 40-story building on the site to achieve the same density and a satisfactory investment return.

Although the third alternative cannot reach the same densities, it does offer a different kind of benefit for a block with sound existing housing. It is an infill and renovation scheme



Infill scheme would preserve most of the existing houses and increase density from 11 dwelling units per acre to a maximum of 56. Existing laneways and underused back yards are replaced by low units with underground parking and a skylit central walkway. Old houses, converted to duplexes or triplexes, would retain the flavor of the past.

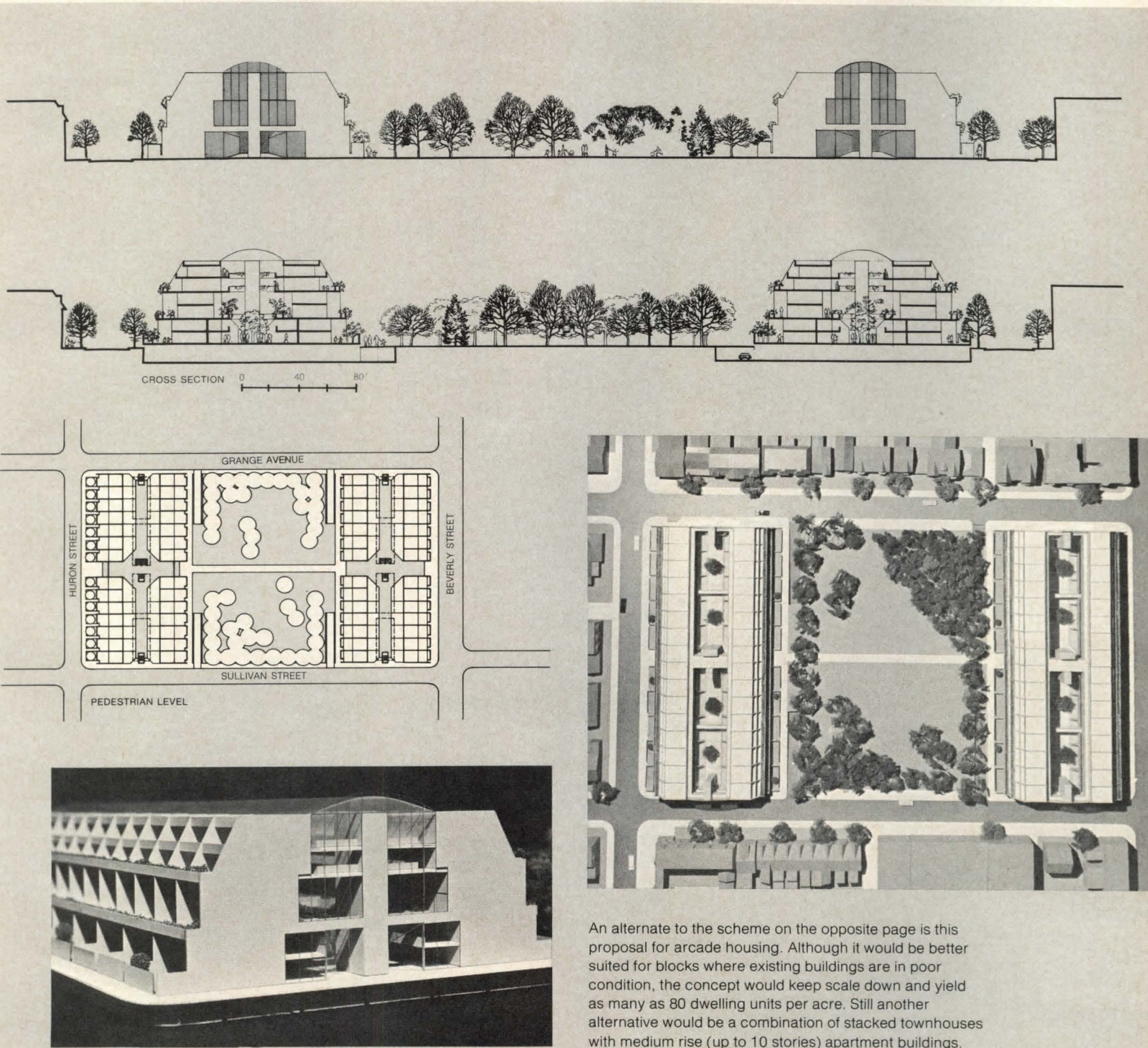


that would keep the integrity of the residential streets intact. The key to getting the proposal going is joint participation by block residents. Property owners would form a cooperative corporation, investing about \$2000 to establish equity financing. In addition, they would pool the existing laneway with that portion of their backyards that now generally serves for parking or garages. Stacked townhouses could then be constructed in the center of the block, with new parking underground. At ground level, a central walkway would give access to shopping facilities. Above that level would be townhouses and apartments with separate entrances and patios. The cen-

tral space would be glazed at the roof, bringing light to the walkway between the two halves of the building. Owners could expect to receive a \$1000 yearly income from the rents paid on the structures.

While the infill housing would bring the density up from 11 dwelling units per acre to 34, additional units could be gained within the existing houses. By converting these large structures into duplexes or triplexes, densities of 45 to 56 dwelling units per acre are possible. With an average floor area of 3000 sq ft, the houses would be ample, even when subdivided.

Diamond & Myers began the first study, of course, with a



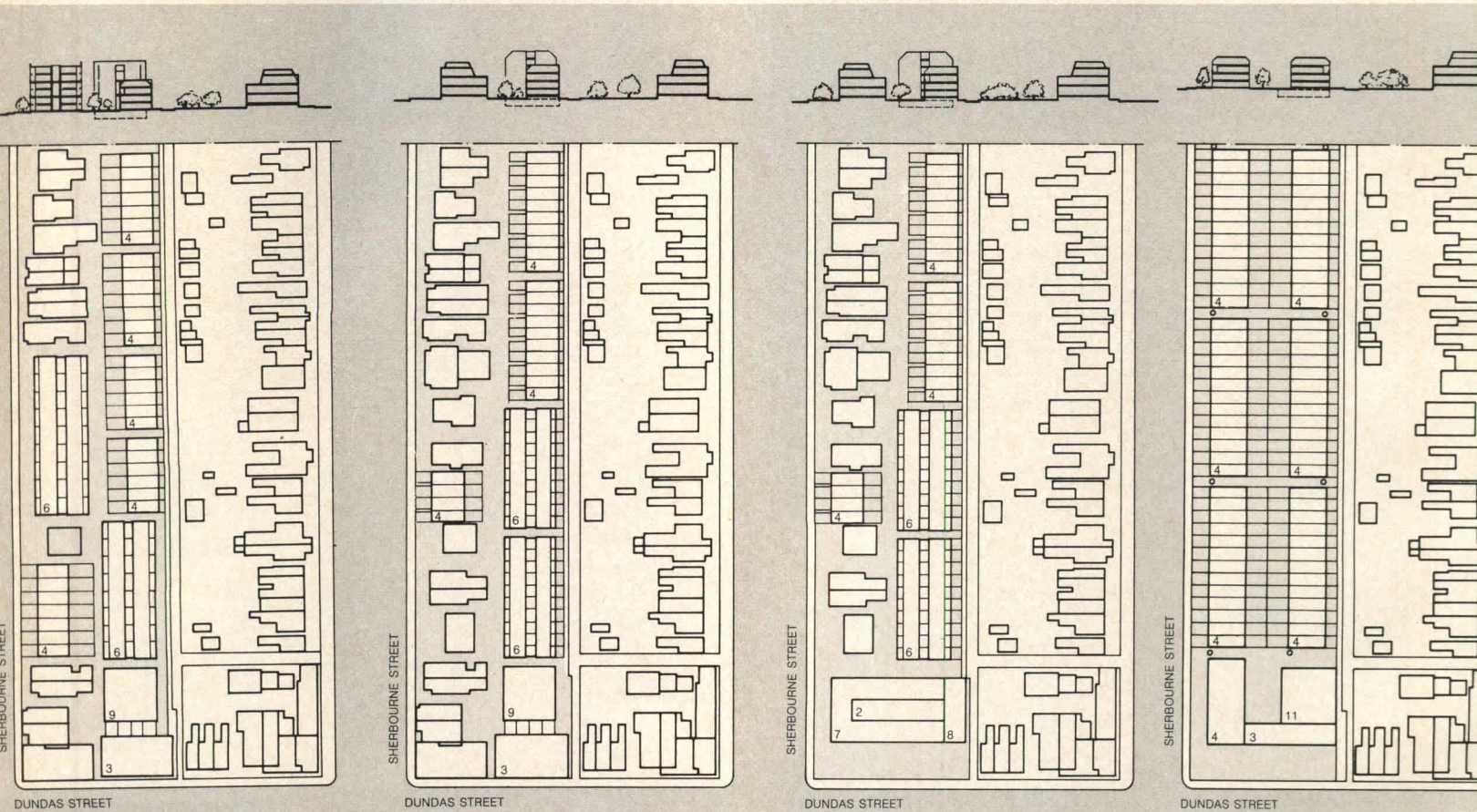
An alternate to the scheme on the opposite page is this proposal for arcade housing. Although it would be better suited for blocks where existing buildings are in poor condition, the concept would keep scale down and yield as many as 80 dwelling units per acre. Still another alternative would be a combination of stacked townhouses with medium rise (up to 10 stories) apartment buildings.

To save a fabric

concern for the quality of life in Toronto's old neighborhoods. They were not out to knock either developers or high-rise buildings, per se. Developers, they say, are merely doing what codes allow, and high-rise construction is appropriate in some situations. Still, it is becoming more and more apparent that sacred axioms, both aesthetic/social (lots of shared open space) and economic (compress apartments into tall buildings) are seriously flawed. Obviously, the pilot scheme(s) for the Toronto neighborhoods will demand a re-evaluation of by-laws in order to succeed. The architects have advanced several hypotheses, backed by a thorough cost breakdown. What that analysis shows is that, regardless of how the housing is built, the total project cost does not differ significantly. "Production costs," says Jack Diamond, "are not a variable,

as some people contend. Revenue, rent structures and land costs are linked and variable. Parking is also a variable." Having shown the economic feasibility of their schemes, Diamond & Myers can now concentrate on the things that prompted them. "Once we've shown that density *can* increase without the need to destroy, we can go on to make decisions based on more important considerations—the neighborhood fabric and the people that live there," says Barton Myers.

Publicity resulting from the first study has generated two subsequent feasibility reports, for clients, based on similar comprehensive investigations. Diamond & Myers retain an enthusiastic optimism about saving the old neighborhoods and getting by-laws changed. They have developed convincing arguments that deserve action. [JM]



The Dundas-Sherbourne feasibility study was carried out to show development alternatives for a half-block site, ranging from new infill (far left) to all new construction (right). Numbers indicate story heights of new buildings. Buildings on the opposite page are also part of the Dundas Street area.



Some decorated sheds or Towards an old architecture

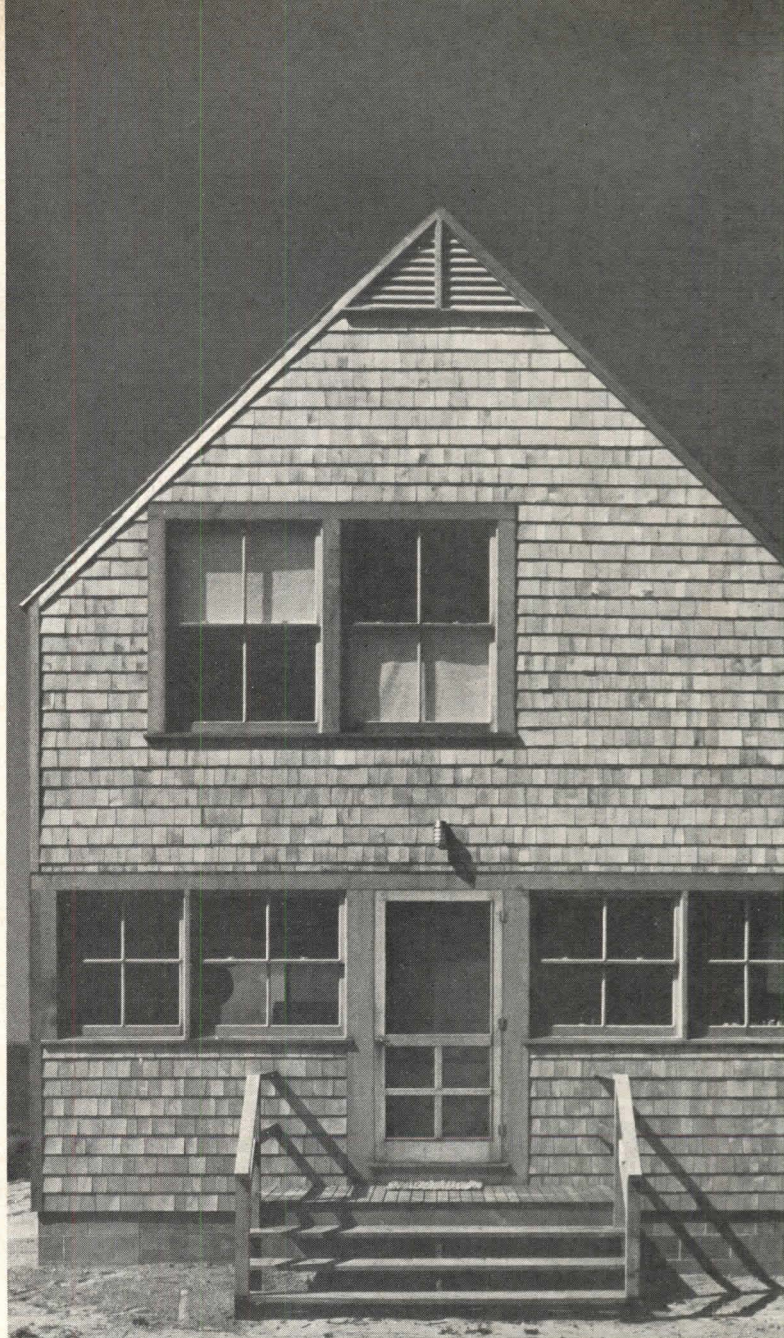
Two vacation houses by Venturi & Rauch on Nantucket Island, one “ugly and ordinary,” one “complex and contradictory” demonstrate the process of learning from the local vernacular

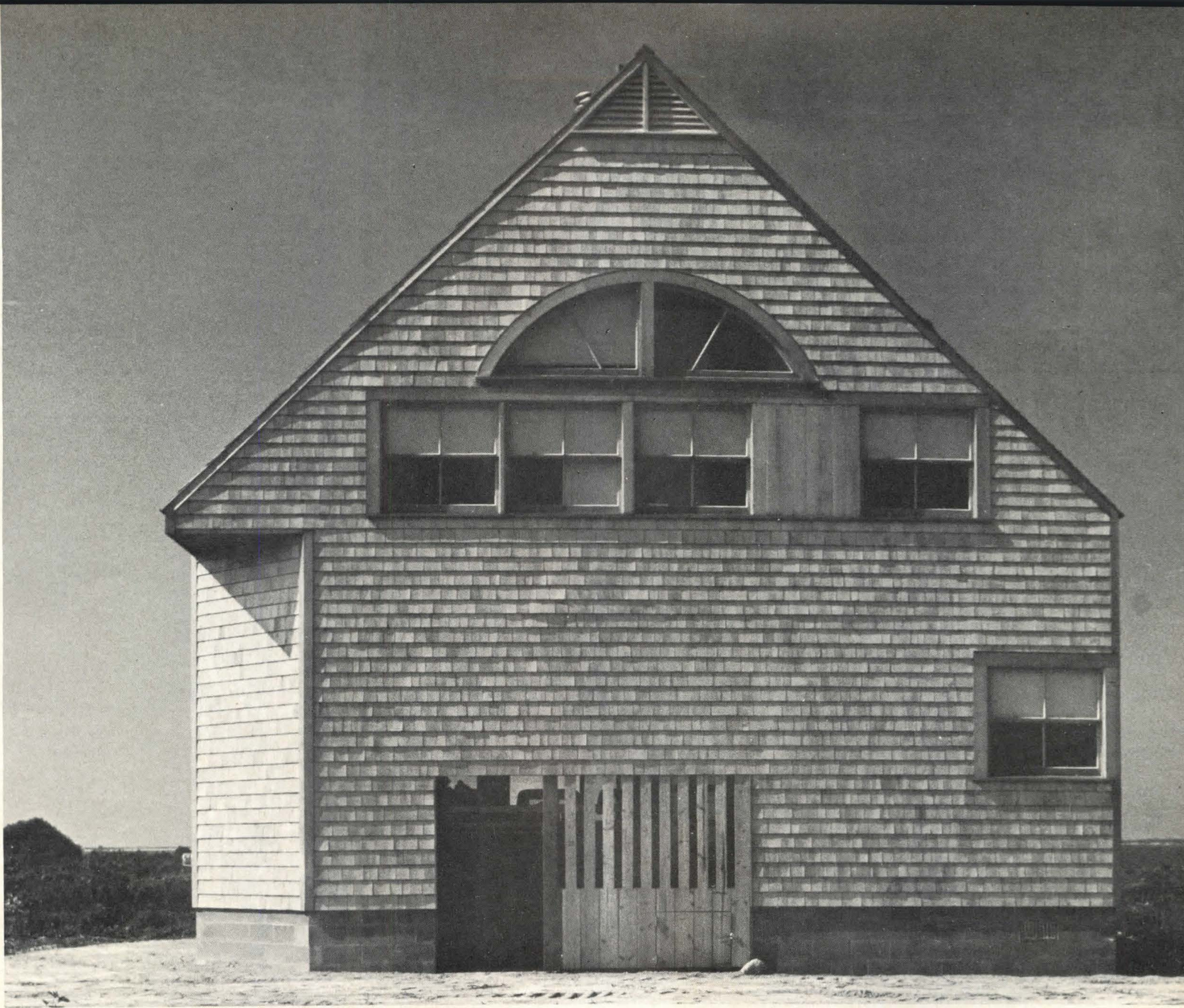
Robert Venturi and his writing associates, Denise Scott Brown and Steven Izenour, have a way of summing up many-sided issues with terse, two-part titles. The head for this article is assembled from parts of two different chapter titles in their recent book *Learning from Las Vegas*. These phrases could be applied quite literally to the Trubek and Wislocki vacation houses, since they might be mistaken, at first glance, for old fishing shacks. In fact, the houses demonstrate very well the special meanings the author/architects assign to these phrases: they are simple volumes with applied superficial symbolism and they reinterpret the symbolism of a preceding tradition.

Individually, the houses represent two different, but related qualities. In the eyes of their designers: “The larger house is complex and contradictory; the smaller house is ugly and ordinary.” In fact, one house is larger and more complex because the Trubeks had a larger family and a larger budget; both houses are quite basic.

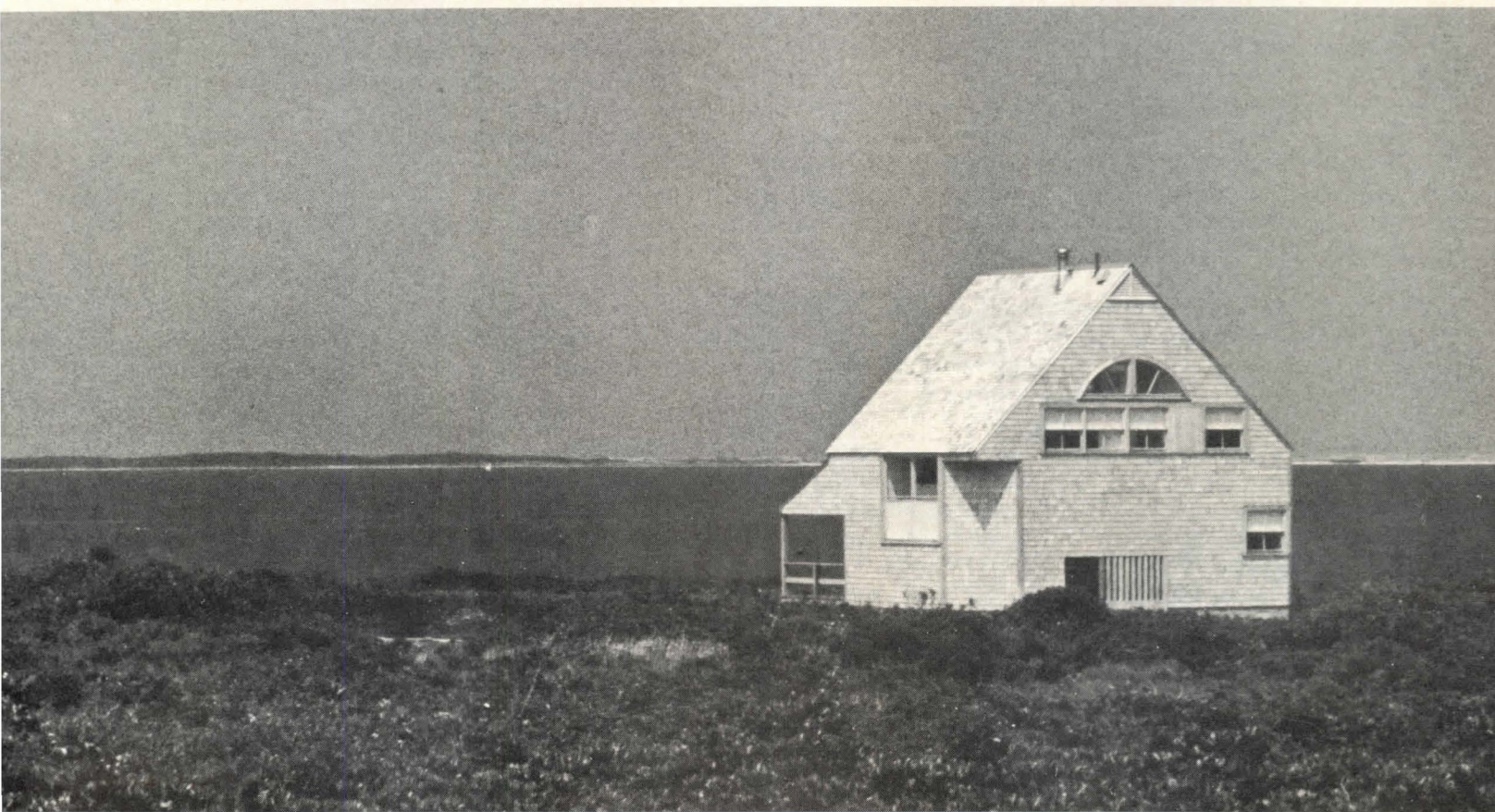
The Wislockis know what Venturi means by “ugly and ordinary,” and are pleased that their house demonstrates the concept with such finesse. Of the two, their house looks more like a 19th-Century fisherman’s cottage—a simple rectangle, with its gabled roof pulled down to leave just enough head-room under the eaves. Concessions to the modern vacationer: porch steps extend all across the waterside as sitting places; windows are bigger (4’-3” wide) than the originals they are patterned after. Because the shapes of the windows and their casual, interior-dictated placement are familiar, the outsized windows raise questions about scale: they make the house as a whole look deceptively small, its shingles and window frames unusually fine-scaled, its walls extra thin.

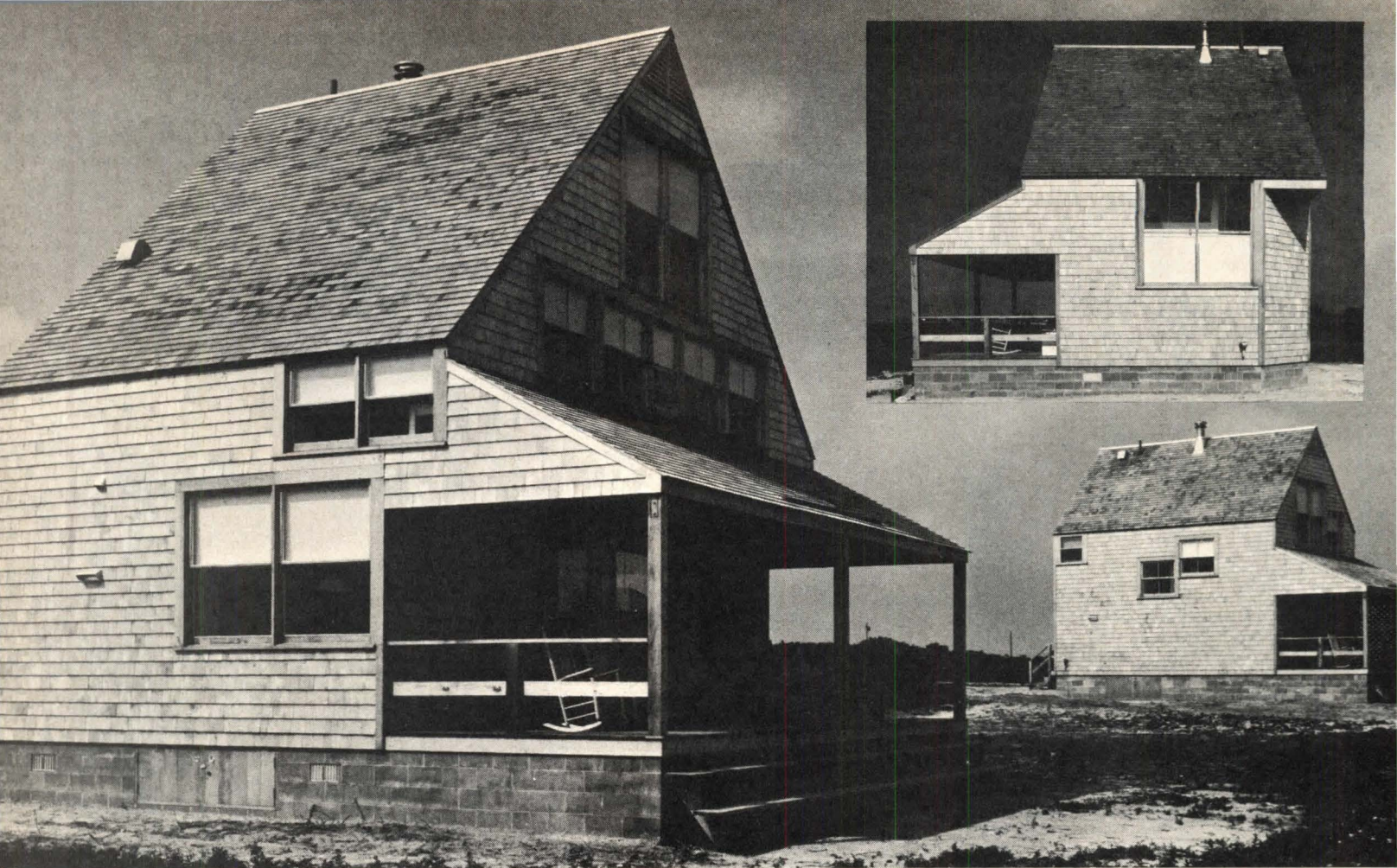
The larger Trubek house recalls—at least from the land side—the complexities and allusions of more sophisticated 19th-Century resort cottages. Its long side faces the sea and its gable spans the long dimension, exaggerating its slightly greater size and making room for usable third-floor spaces. Where the forms of the Wislocki house are simply additive, the porch here is partly swallowed into the volume of the





Wislocki house (left) is basic cottage; Trubek (above) shows Queen Anne flourishes. Together, (below) they form a single, extended composition.





Facing the water, Trubek house (foreground) has porch similar to Wislocki; west side of Trubek (inset) has super-sized stairwell window.

house. All of these devices were common in the shingled houses of 1890s seashore and suburbia.

In the handling of the main stairs, the Trubek house is firmly established as 1970s Venturi rather than 1890s builder's companion. Springing from an enlarged window seat, which is all curves and angles in plan, the stairs cut diagonally across their own well and bump into the wall at the top. Outside, a corner of the house is lopped off to show where all this happens. The stairwell makes possible an extra-large window, a traditional four-paned image blown up to more than three times customary scale, with sill height to match. "The great Palladian window on the north façade of Mount Vernon is not quite the same thing," say the architects, "but we were thinking of it." George Washington's big window, of course, took the form of a recognized status symbol, while the Trubek window is a blown-up symbol of ordinariness. And Washington added a well-known portico at the same superscale as his window, while the porch here remains stubbornly human-scaled—giving away the whole game.

The Trubeks and Wislockis decided to call in the Venturi office because they liked Robert Venturi's approach to the small house, in particular his mother's house (P/A, May 1965). "We were intrigued to know what he could do for us," Trubek recalls. They wondered, of course, whether Venturi might turn out to be "just a crazy theoretician." Instead they found architects "who could build reasonable houses in a reasonable time, with real attention to detail." Once both clients and architects adjusted to the high cost of building on Nantucket, the relationship was not only smooth, but warm. The houses were completed within 3 percent of budget and within three weeks of schedule.

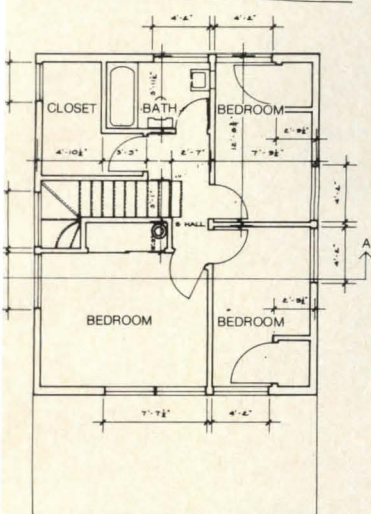
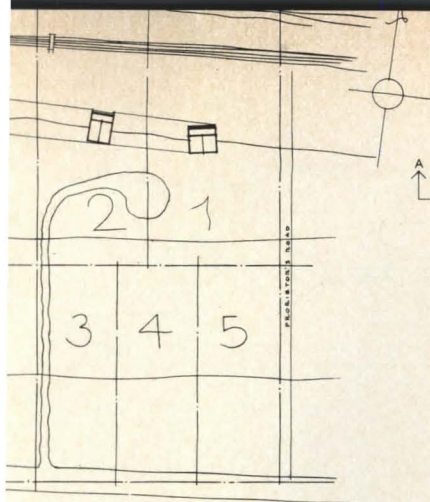
While Venturi & Rauch had strong convictions about de-

tails, they were wise enough to take advice from the island contractor and local architect, Christopher Holland, on flashing and other details to withstand the steady winds and driving rains of exposed Nantucket sites. After a year of use, the houses remain perfectly weathertight.

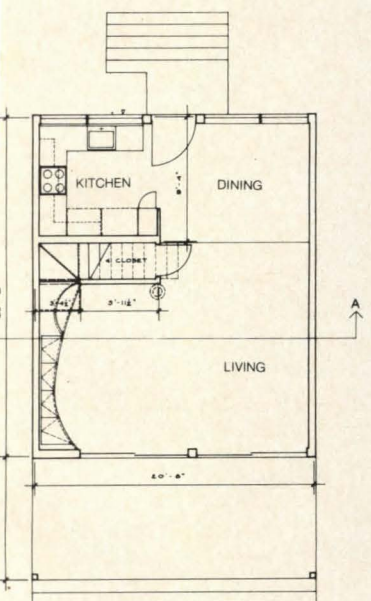
"In terms of living accommodations we wanted," reports Trubek, "the houses couldn't be better." The clients did question the value of the porches, compared to interior space they could have had for the same money. Venturi defended them, partly for the sake of the seashore cottage image and partly because he thought they would be useful. As it turns out, they are used whenever the weather is warm enough ("You can just hose them down after lunch") and the full-width steps are popular seating places, as intended.

Reminiscent as they are of older island architecture, the houses did not win quick approval from the Nantucket Historic District Commission, which took them up just after its jurisdiction had been extended beyond older, built-up zones to include the whole island. Here they had to decide whether the designs preserved the "historic character" of an area developed only in the past 20 years, largely with vacation A-frame and pseudo-saltboxes. The overall massing and materials of the houses were immediately approved, but the unorthodox composition of openings was accepted only after much lengthy discussion.

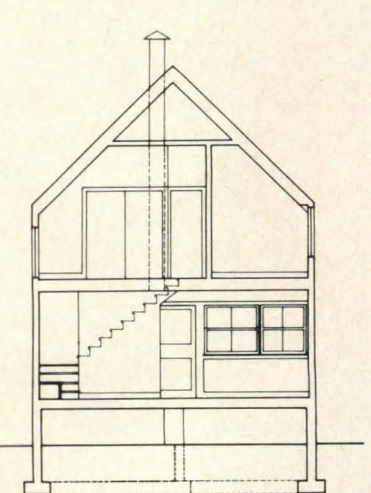
The Venturi office has shown here that it can learn from the vernacular of the American seacoast, applying the lessons with both hard-nosed practicality and subtle wit. On one level, these houses meet real user needs and fit almost imperceptibly into an existing pattern of development; on another level, they are revealing comments on the most basic American building traditions. [JMD]



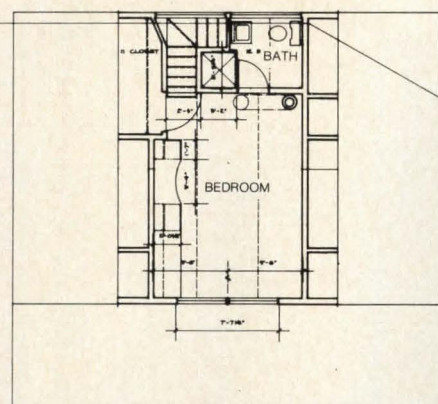
SECOND FLOOR



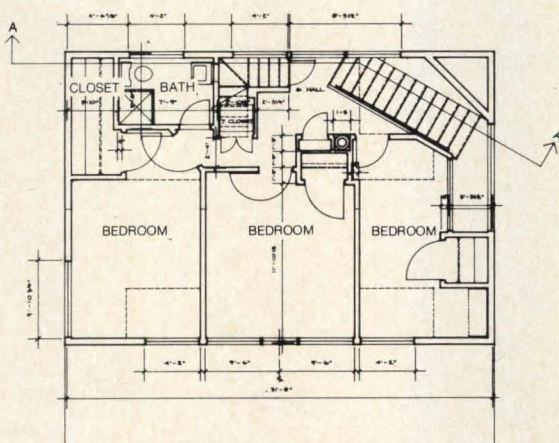
FIRST FLOOR



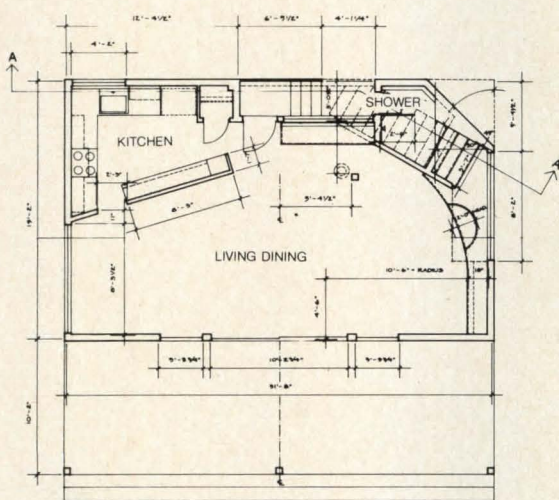
SECTION AA



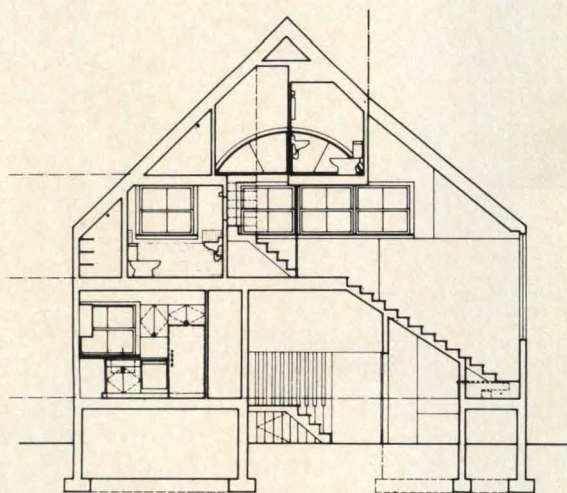
THIRD FLOOR



SECOND FLOOR



FIRST FLOOR



SECTION AA



Trubek living room



Wislocki living room



Data

Project: Trubek and Wislocki Houses, Nantucket Island, Mass.

Architects: Venturi & Rauch, with the assistance of Terry Vaughn. Project architect: Christopher Holland.

Program: vacation houses for one family with three children and a related family with two children.

Site: 300 ft of beach front at the northeast extremity of the island.

Structural system: standard wood frame on concrete block foundations.

Mechanical system: electric heating units installed in floors.

Major materials: white cedar shingle exterior walls and roofs; gypsum board interior partitions.

Consultants: structural engineers, Keast & Hood Co.; mechanical-electrical engineers, Vinokur-Pace Engineering Services; interiors (Trubek house), Diane Boone.

Costs: withheld; island construction costs not representative.

Photographs: Steven Izenour.

Alternate housing

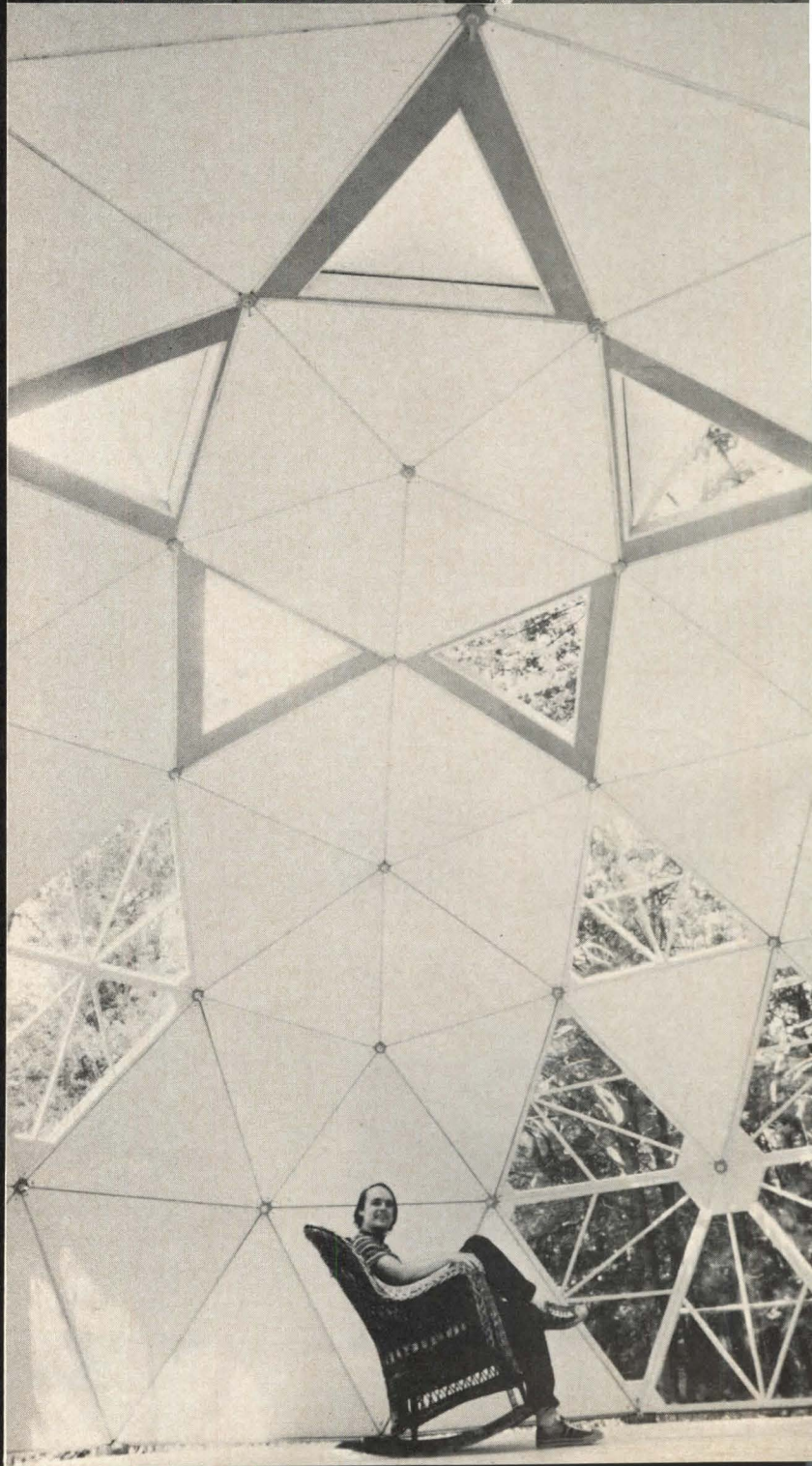
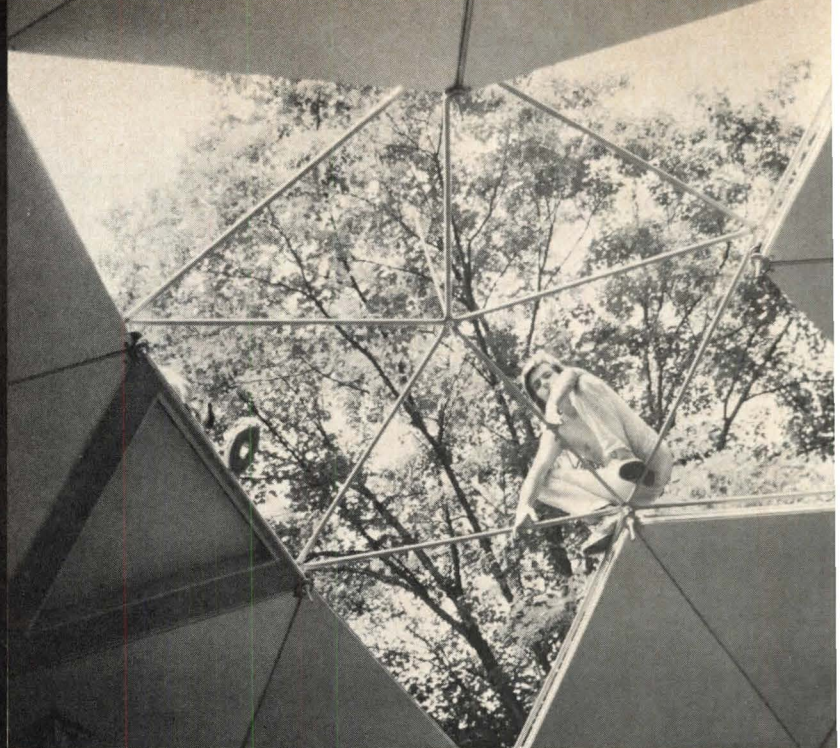
Other ways

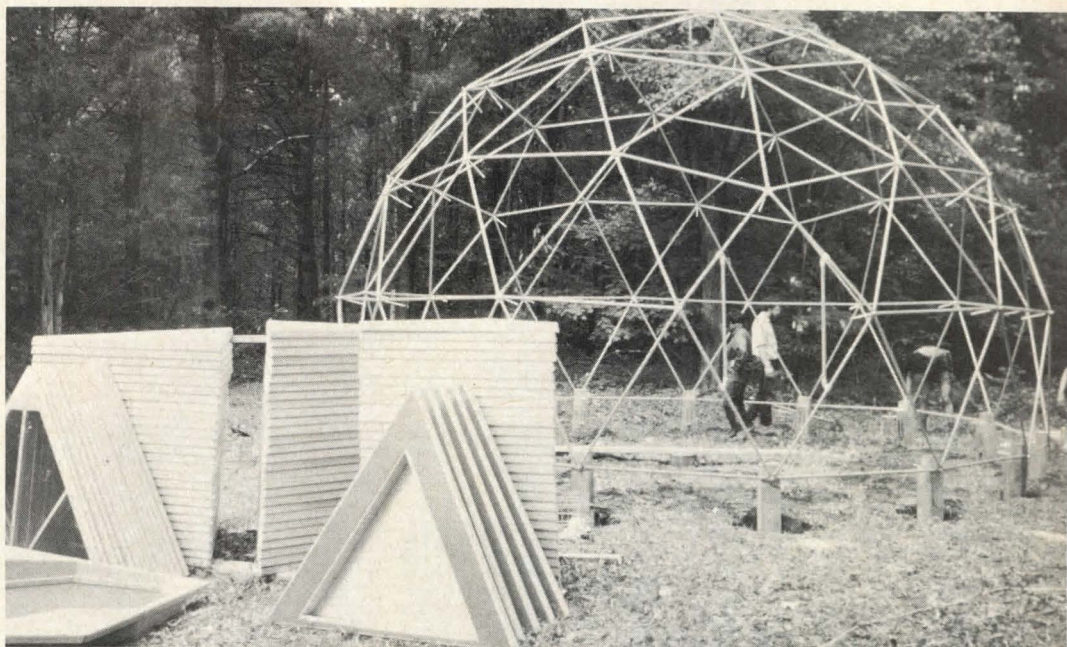
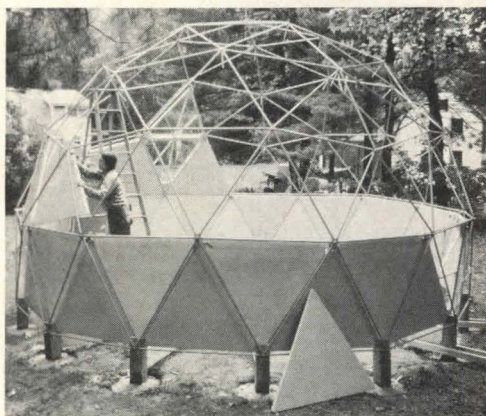
Some people, usually out of conviction as much as out of necessity, prefer to create their own kinds of housing, using familiar materials in a form of contemporary folk art

For whatever reasons, and in whatever manner, "lifestyle" means a great deal to most people. Despite its generalized use, however, the term is more descriptive when preceded by "alternate." In that form, it usually alludes to living patterns, and shelters to house them, that are established by the people they serve. The actual enclosures are, in fact, alternatives to standards set by others, and reactions range from bitter condemnation through interest to frantic praise. Are they communist-inspired symbols of moral decay? Or maybe the outward manifestation of the *I Ching*? Are they hedonistic or religious in origin? Don't laugh—believers can be found for all of the above, and then some. To some observers, the living patterns expressed conjure up a specter of rebellion or disregard for established social or legal norms. For others, the housing shown on the following pages represents the very highest form of respect, not only for self, but for land and resources as well.

Reasons for going this route are numerous, as are the actual forms that result. Most share the advantages of self-expressive living styles and reduced cost. Most are assembled, or at least rearranged, by the owners. Some, such as the houseboats and the van/bus housing, use no land at all. Some reclaim building materials and/or existing resources, such as a boat hull, lumber, windows or existing space.

Still another category, overlapping the others, is a do-it-yourself movement linking technology and craft. The variety of shelters at Whiz-Bang Quick City 2, and packaged domes from Woodstock are cases in point. In almost all of the results, there is an unmistakable sense of the owners' joy at having built their own place in a manner and out of materials that are uniquely theirs.





Workshop dome

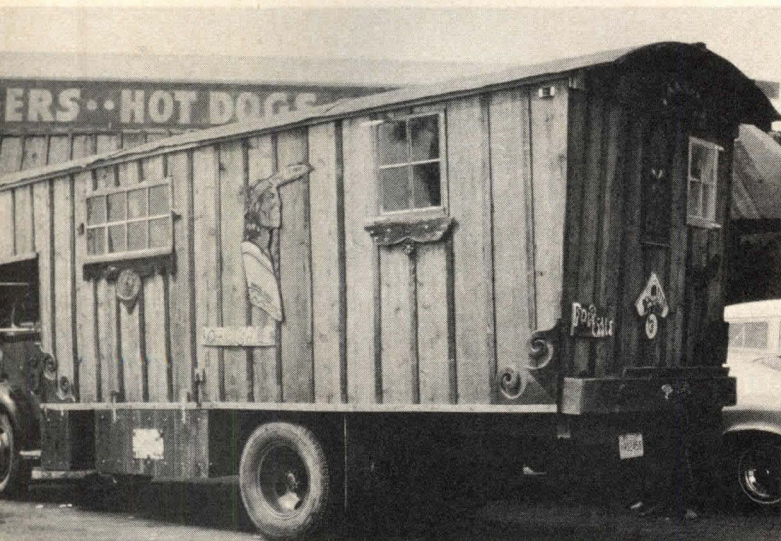
Few building forms have become so identified with the search for alternatives as has the dome. People have been transposing R. Buckminster Fuller's principles into self-built enclosures all over the world, for all kinds of reasons. Architect Les Walker, at the request of *Popular Science Magazine* (where plans are available), designed, fabricated and erected a dome in Woodstock, N.Y., documenting his process along the way. Walker's structure, a $\frac{1}{8}$ sphere 24 ft in diameter, was built for a total cost of \$1400 (fully insulated) and about 550 manhours of labor. Electrical conduit was used to build components of the dome's exoskeleton. Insulated stressed skin plywood panels, like the frame, were made up during the winter in Walker's workshop.

After the conduit frame was assembled, foundation holes were sunk and the 6x6 foundation posts were attached to the frame. Fifteen 2x10 joists were then set on a center post and

fastened to the foundation posts with joist hangers. Concrete pads encasing the bottoms of the foundation posts were poured after leveling operations. Through adjustable hub assemblies, the panels were suspended inside the frame and connected. To ensure weather tightness, Walker selected four important materials: polyurethane marine enamel for the panels, foam tape along the edges of each panel, silicone caulking and aluminum tape after panel placement. The hubs were tightened, drawing the assembly together before the final caulking and taping. With $\frac{1}{2}$ -in. plywood fastened to the bottoms of the joists, 6 in. of fiberglass insulation was placed between the joists. Tongue and groove 2x6 spruce flooring finished off the space. Five panels at the top of the dome may be opened for ventilation, using a small winch and nylon cords. Completed just before Hurricane Agnes, the dome made it through 10 days of rain and wind without a leak.

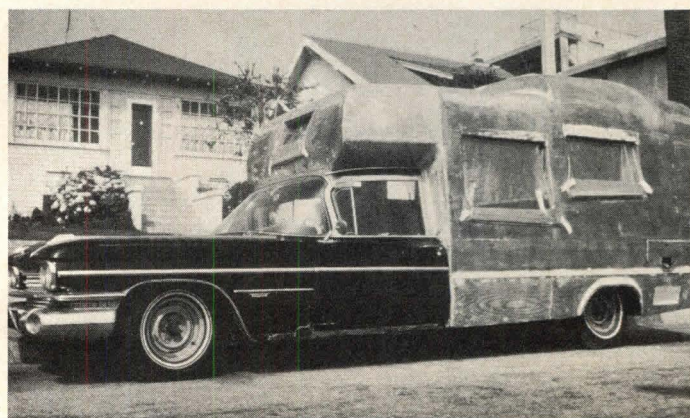
Other ways

Four-on-the-floor



Mobility used to be thought of as a mobile home, fixed in one place, but easily moved to another. Obviously these homes weren't mobile enough for some people, as these trucks and buses converted to housing will attest. While not offering all the amenities of the mobile home, many converted vehicles acquire the image of house through their additions or decorations.

Crazy Pete, often parked at a bus stop on Second Ave. in New York City, advertises that he is going on a world tour. Appended to the bus, for further mobility, are a bicycle, a canoe and two motorcycles.

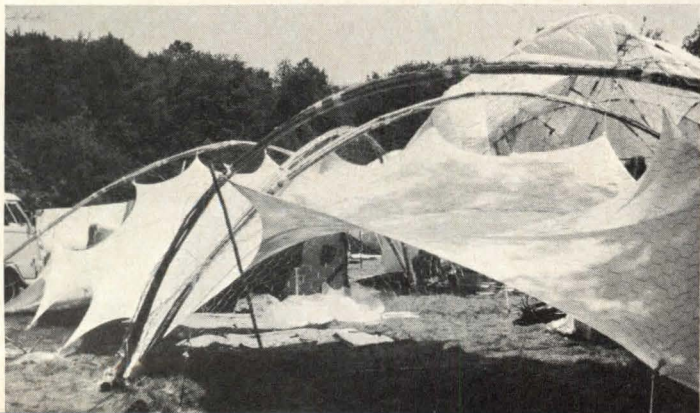
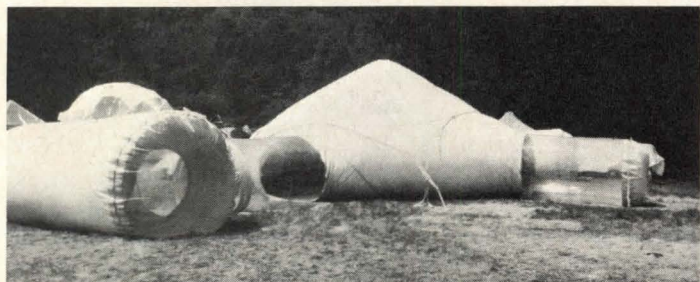
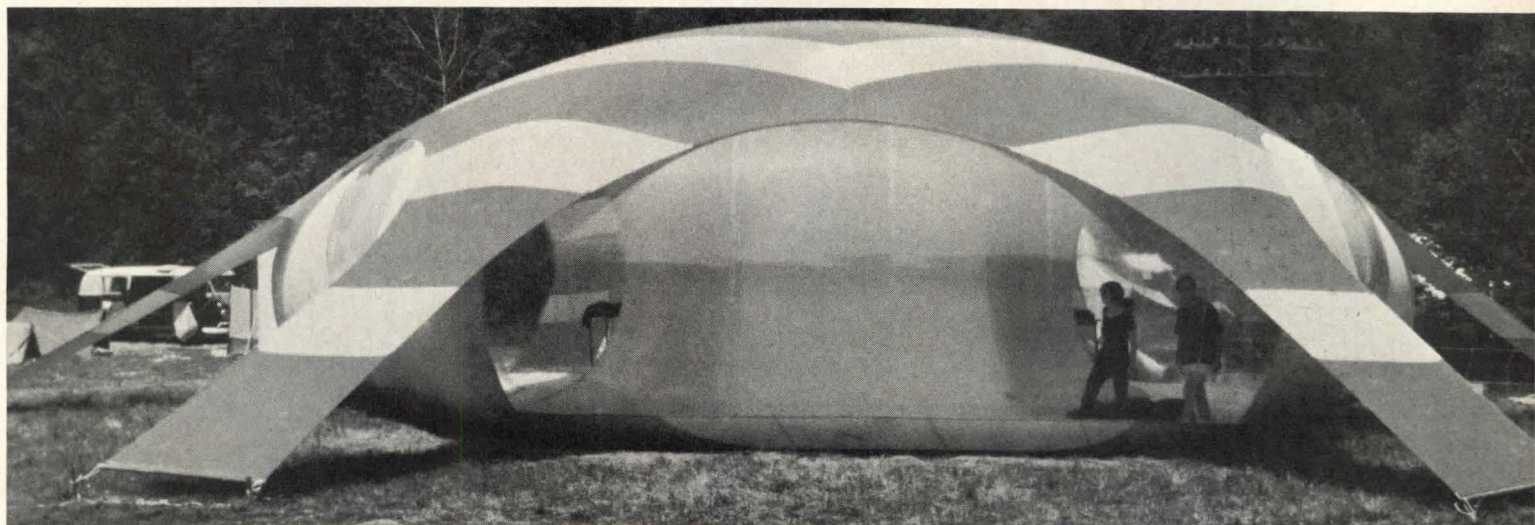


Other ways

Whiz-Bang Quick City 2

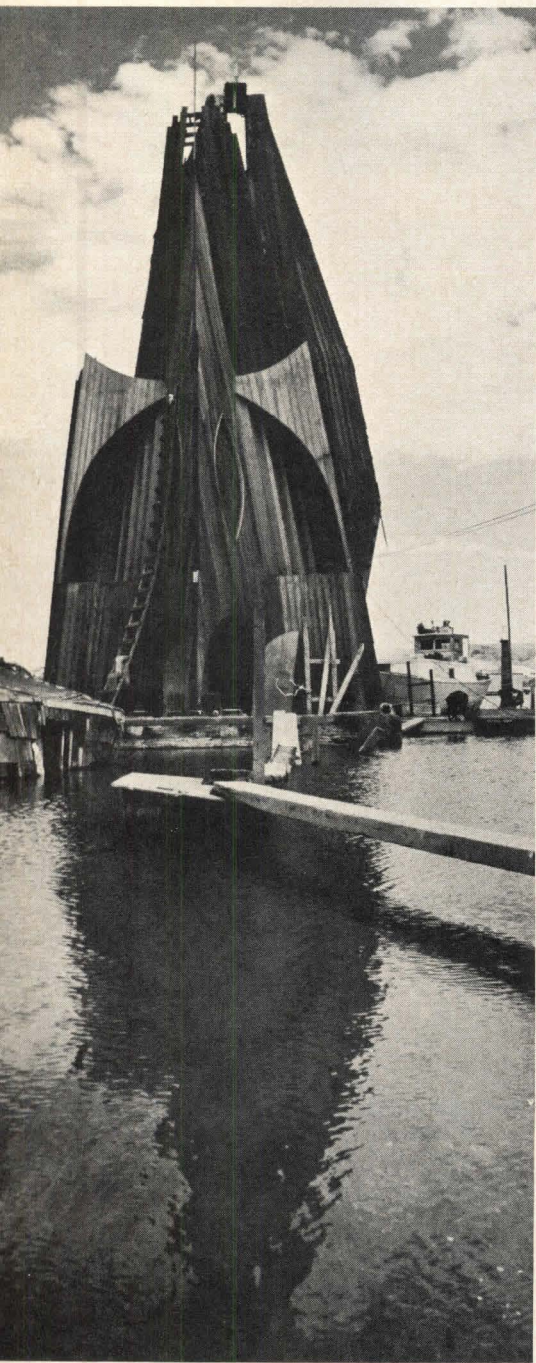
Early last June, 250 students from 30 schools gathered near Woodstock, N.Y. under the direction of Robert Mangurian and Les Walker of Works East to build for two days and live together for five more. Structures of various sorts—domes, inflatables, tensioned and post tensioned membranes—were plopped down on the land as minimal shelters. Besides providing an opportunity for building experimental structures, the WBQC2 program also explored aspects of community design. Last year's planning efforts, however, hampered by several days of rain, soon gave way to the sheer instinct for survival in knee-deep mud.

The finished community provided shelter for nearly 500 residents on 180 acres of land which the owner had lent for the week. Funds came from the Educational Facilities Laboratory and the New York State Council on the Arts, and several manufacturers donated building materials. Not deterred by the elements, WBQC3 will make *its* appearance somewhere, sometime soon.

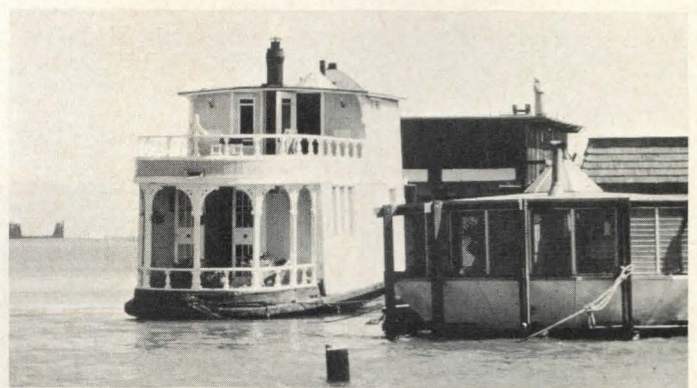


Other ways

Homes on the bay



Houseboats are an old form of alternative housing and, at least in areas like the orient, are recognized as low-income dwellings. These examples in Sausalito, Calif. run a broad gamut from trashy and minimal to something resembling a floating suburban house. Most of the harbor dwellers base their choice on economy of investment, as well as the immediacy of being able to realize one's thoughts and ideas. Some of the expressions such as the "Madonna" (opposite page) by Chris Robins approach sculptural qualities, both inside and out. Others are fanciful (right), homey and lived-in (lower right) or even just a little bit forlorn (below). Not all are owned by the occupants, but rent for prices comparable to apartments.

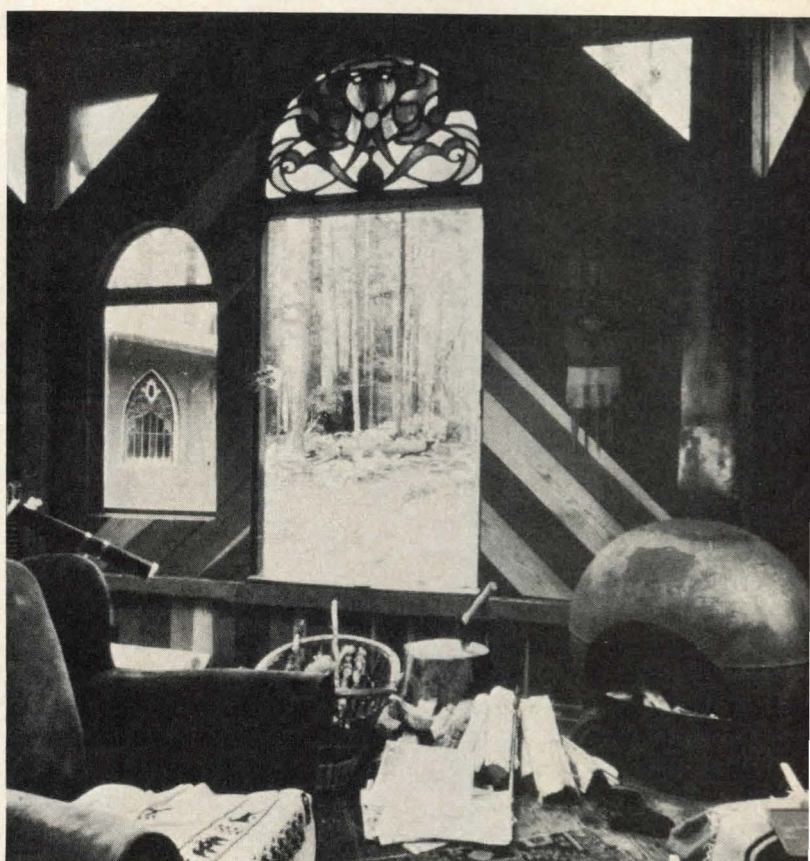
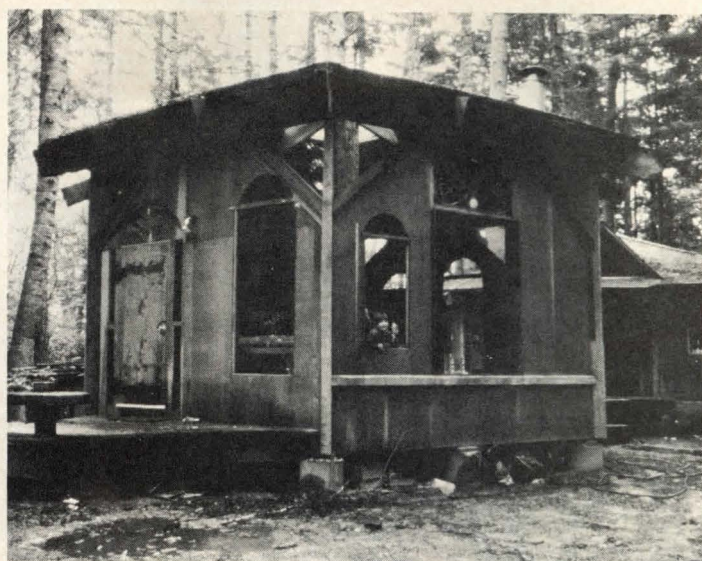


Photos: John Veltri

Other ways

Woodbutcher's art





The photographs and captions on these two pages are excerpts from a new book *Hand-Made Houses—A Guide to the Woodbutchers Art* by Arthur Boericke (Scrimshaw Press, San Francisco \$12.95). The author, some eight years ago, began building a house for himself which he describes as "not a design that the bank or a contractor would consider prudent or reasonable, but a place salvaged from remodeling and demolition jobs, flea markets and country dumps . . . In short, a solid little shed that has some of the spirit and personality of the builder. . . ."

Some five years later, what the author had considered an eccentric hobby has become a serious movement, and in searching out similar examples, he had to admit that the ingenuity of these newcomers surpassed his own. "In fact, . . . almost overnight it seemed, sturdy little places had started up; there were woodbutchers making do with salvaged lumber, hand-hewn beams, barn shakes and redwood bark along upland creeks and steep ravines. For no mistaking it, like organic farming, building your own place has become the four-square gospel . . ."

Besides compiling a book of thoughts and pictures on these hand-built houses, Boericke is teaching a course on the handmade house at the California College of Arts and Crafts. In his own words, "A well-built place reflects all the activities and the commotion in it, the changing seasons, the passing clouds, the time of day."

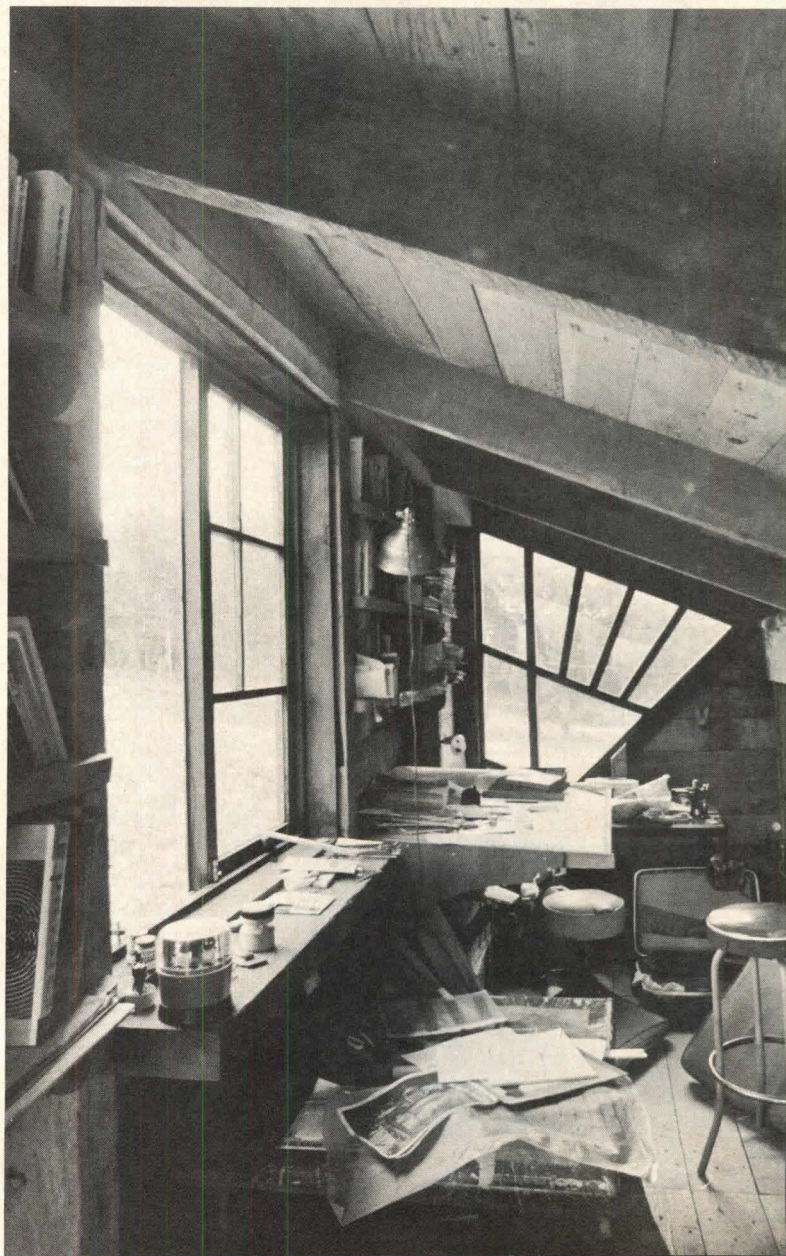
The hills are alive



Reclaimed wooden shipping pallets are the major material in this house designed and built near Bolinas, Calif. by architect Doug Dahlin.

California, for whatever else "outsiders" may think, has a special call for individualists. (Consult your ouija board, tarot cards, local shrink or chamber of commerce definitions of outsider.) Its climate and natural resources have always been kind to its inhabitants. The fact that people have not always been kind to California has even further separated the ideals of concerned individuals from those of developers bent on financial exploitation. This, among others, is a generating rationale for the forms expressed in this section. For the owner/builder of each, there are probably common points of agreement with the others. A re-awakening has taken place in their minds. (Detractors would call it a regression.) For all of man's abilities in technology, the computer and systems housing, no solution has touched their lives. Their choices were made willingly, based on their decisions about life, with its dues and finances, the meaning of "progress," and values of self. Those are the choices that can be read in these accomplishments—including the desire to build for oneself, with friends, a place. What that place is depends on how its owner(s) see it, and build it. Little can be added in two dimensions; three or more are needed. Notes are added to the photos to give credit where it is due, or quotes to bring out a point. Beyond that, explanations are either redundant or inadequate.

At the very least, these housing solutions serve somebody. It doesn't stop there, of course, because a plaintive (but not helpless) voice carries a message from each one. In uncomplicated generalized terms, the housing speaks of a choice of lifestyles, from individual standards, not from mass solutions. They do not represent the majority, either silent or vocal, of homeowners; they wouldn't want to. There are, however, lessons in each type that are neither liberal nor conservative. Like other forms of education, they can be ridiculed, ignored, accepted or loved—that's our choice. The people living there have made theirs. [JM/SLR]

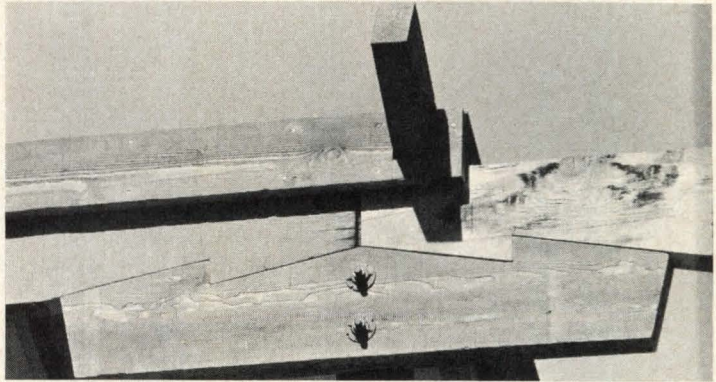




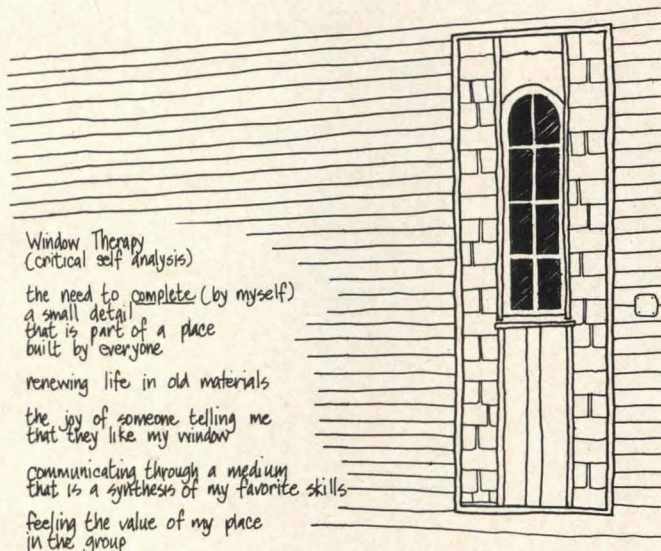
Photos: John Veltri



Segment of a house near Canyon, Calif. by David Linn.



Detail of Sym Van der Ryn house.

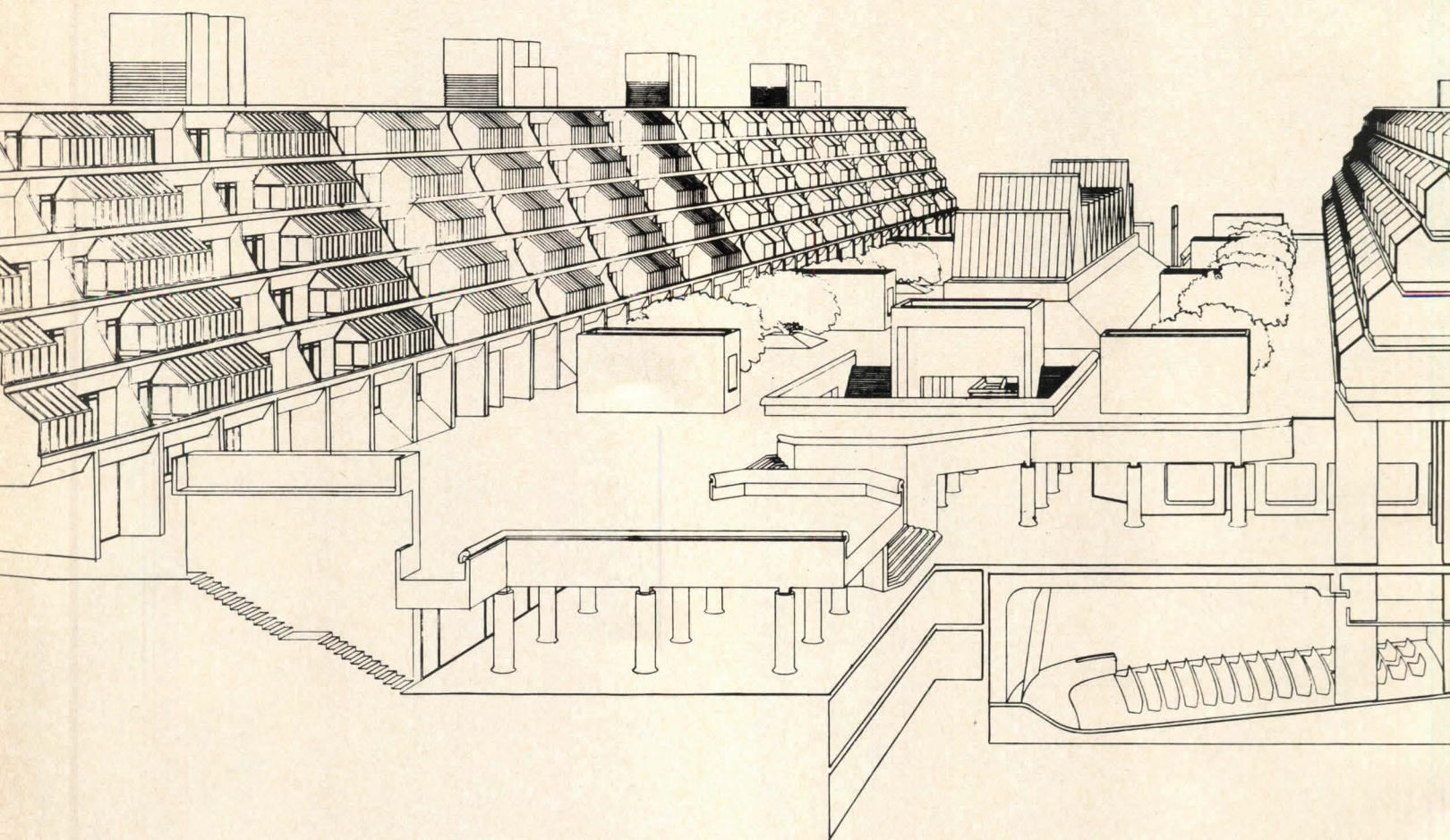


There is no fussiness or pretense, but a spirit of genuine response to need pervades them—
from *The Craftsman*, vol. 13, 1907–8.

It is taking a long time to accept the simple satisfaction of doing what I am doing, living in the present

Sym Van der Ryn

Forward through the past



Conceived as a reaction against the slabs of urban renewal, Brunswick Center emerges as London's contribution to the low-rise, high-density, in-city housing problem

Brunswick Center, in London's Bloomsbury district, stands *only half-realized* some 12 years after the initial scheme was drawn up, and it seems that not enough political pressure can be brought to bear to ensure its completion. Over these years, the program has remained relatively constant: 560 units of housing, 80 shops, offices and 925 parking spaces. But to delineate the history of sponsoring agencies, contractor and

client difficulties would in no way increase our understanding of the building. The process has little value in analyzing what has been built, in this case, as the design concept has remained remarkably constant.

London is a city rich in the Georgian tradition, full of endless diversity of rowhouse and street. One marvels not only at the variety of these pieces, but also at the manner in which they were assembled. Nash's crescent is one invention of urban form built when speculative building didn't have the cheapness now associated with it. Nash did not just create a crescent as urban housing, he also created a city space, a "room" proclaiming the end of the Regent Street axis and the



Brunswick Center (above and below) relates the lower mass of the perimeter block to the scale of the existing housing. The abruptness of the building's end—or beginning—leaves one with the feeling that it might well have continued if the street had not intervened. Section (left) shows the original concept of glass roofs over the commercial areas on the ground level.

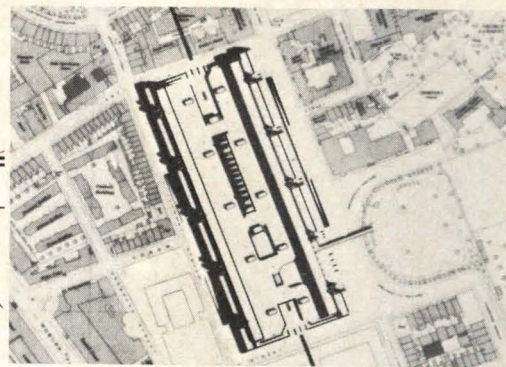
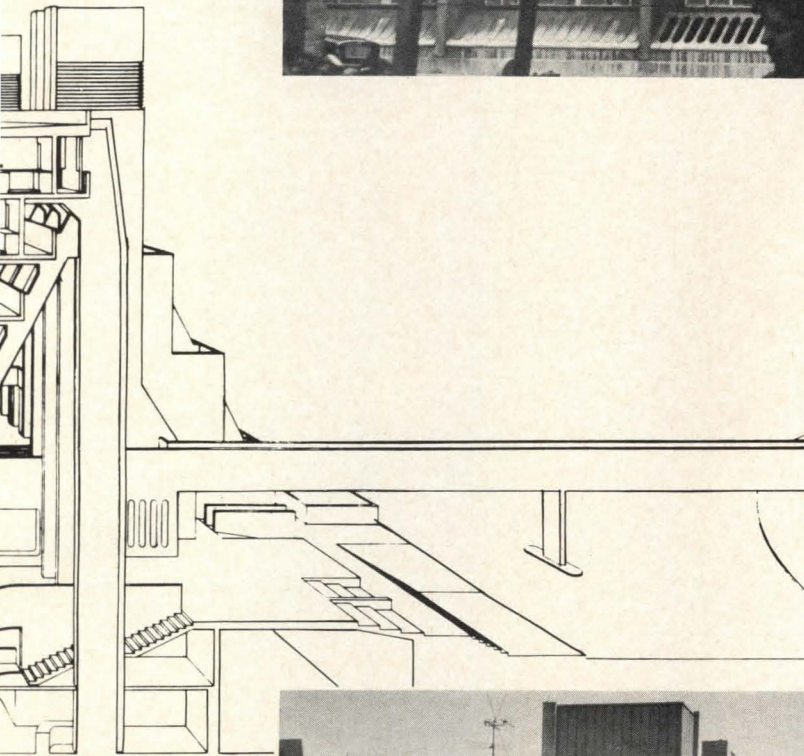
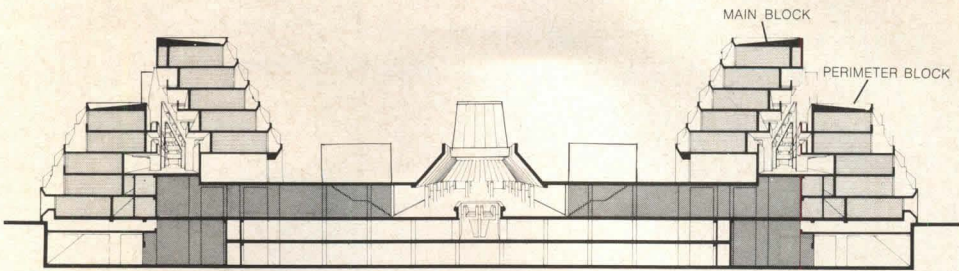
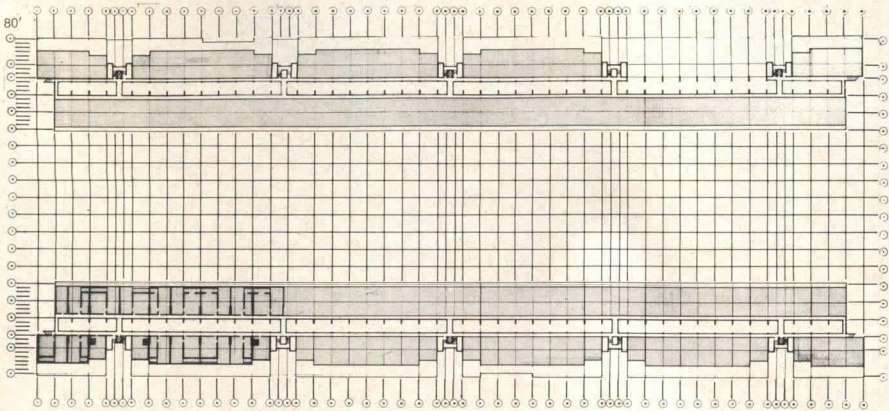


Photo: Richard Einzig

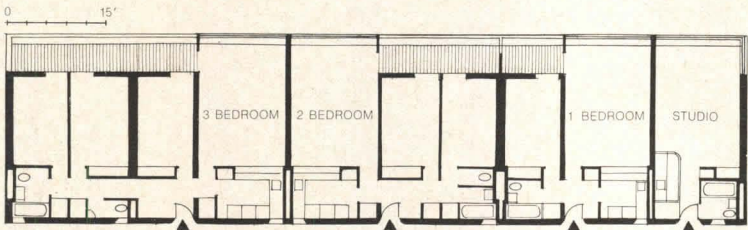
Forward through the past



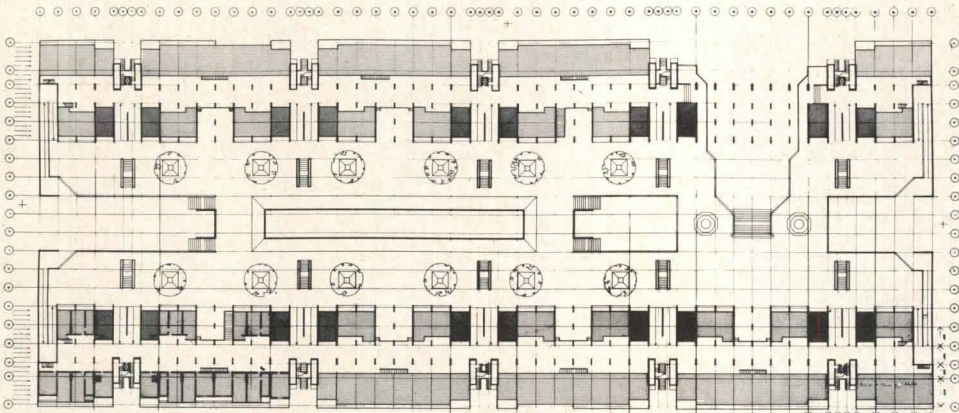
SECTION THROUGH HOUSING AND INTERNAL STREET



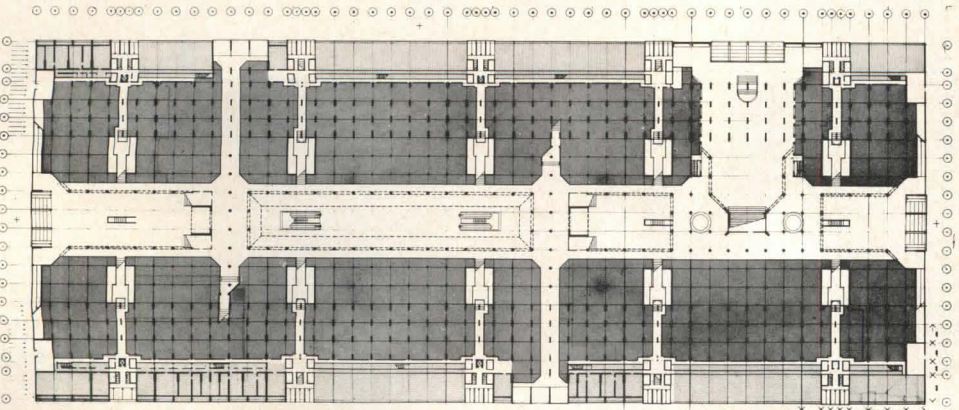
HOUSING LEVEL



TYPICAL UNITS

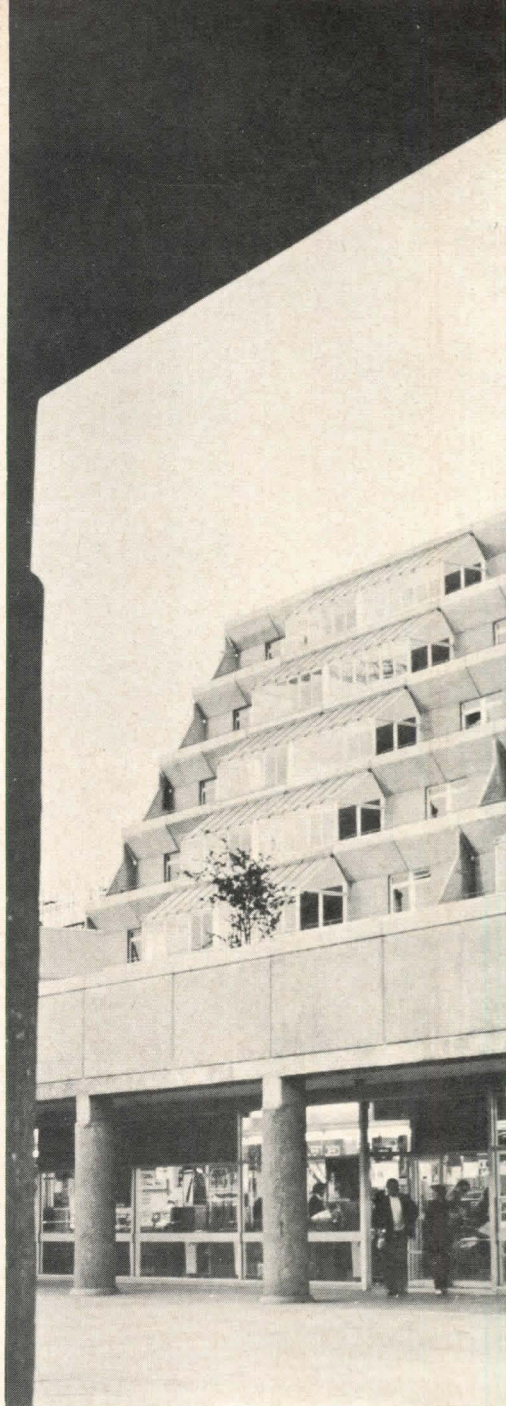


PLAZA LEVEL



SHOPPING LEVEL

N ← 0 30'



At the end of the living spaces, a floor-to-ceiling glass cage allows sunlight to flood the room. Bedrooms are set back and the space outside becomes a balcony.

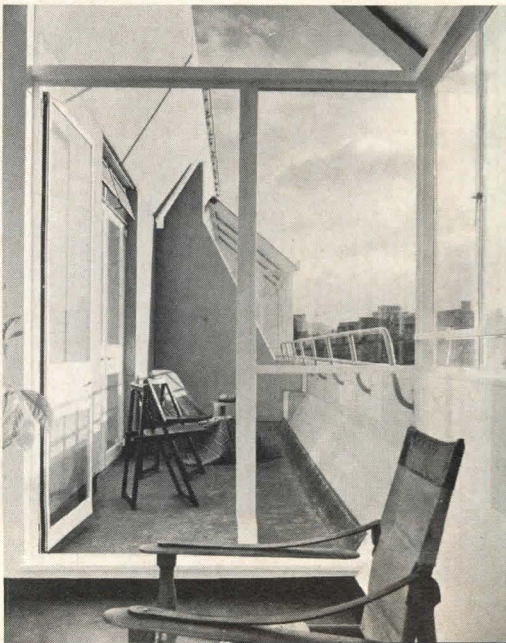
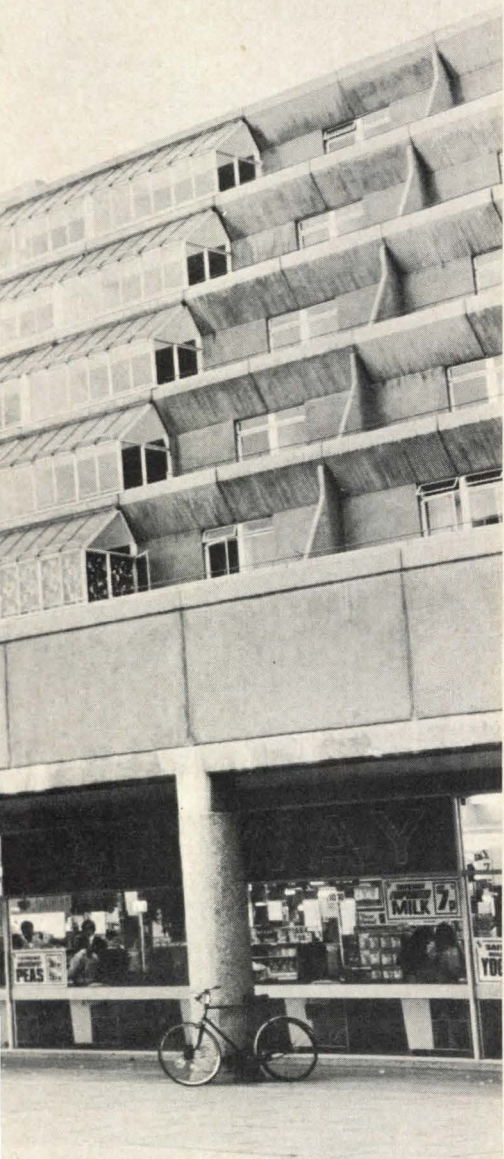


Photo: Richard Einzig



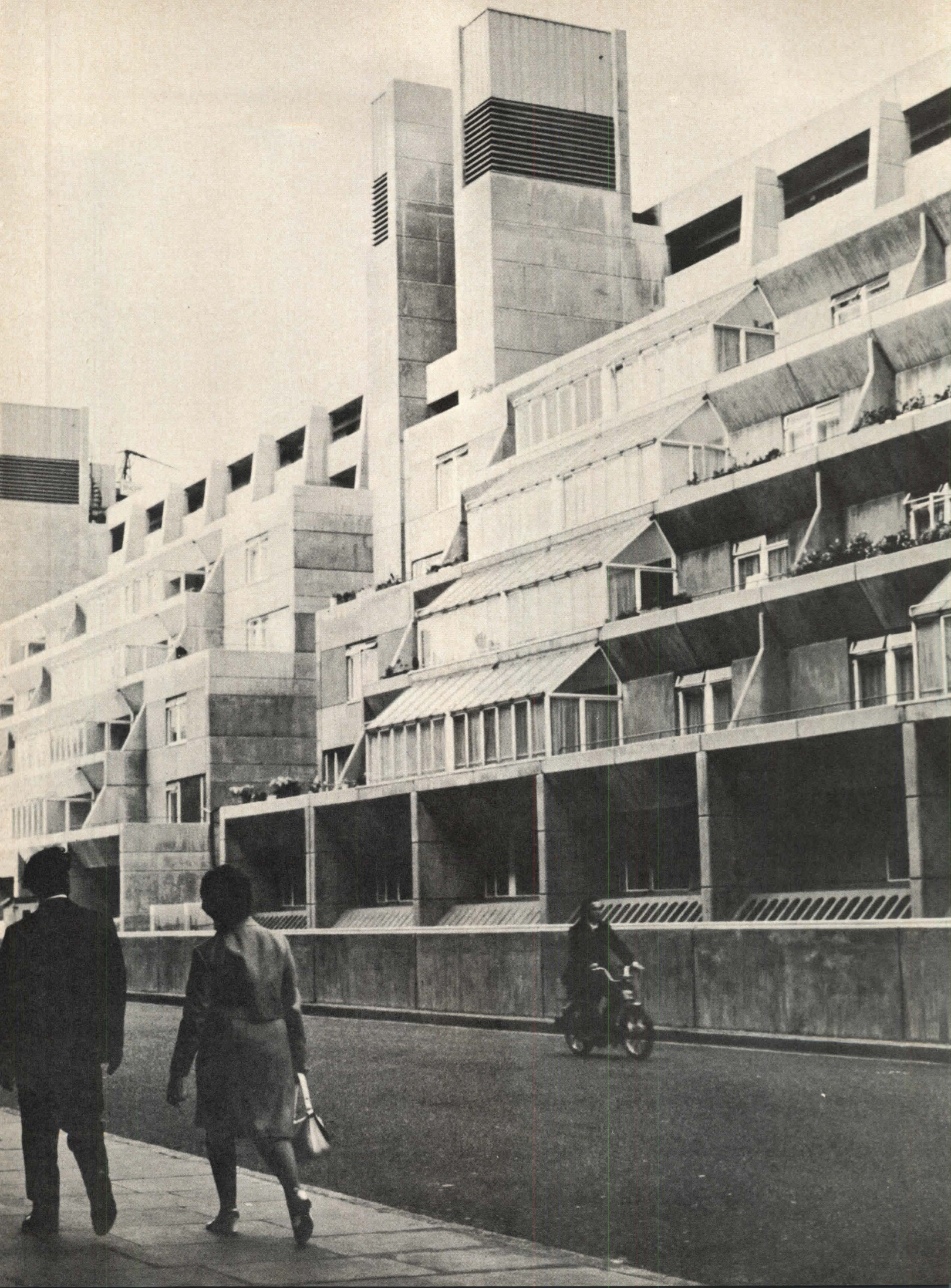
beginning of another urban element, Regents Park.

According to Patrick Hodgkinson, architect of the project, there are two important aspects to consider in housing; its capacity for homemaking and its urban capabilities. Brunswick Center, in its urban capabilities, incorporates this well-known notion of solid/void, city "room." To build low-rise housing in a city abundant with historical precedent and to choose a historical form is to leave oneself vulnerable to criticism.

Brunswick Center, on the site of the former Foundling Hospital, is partly bounded on one side by Brunswick Square and on the other three primarily by low-scaled housing. The two main blocks of housing maintain the street line as it existed, an important consideration particularly where the building touches the square. Housing units are oriented both toward the external streets and toward the internal court. Since very little commercial use exists in the immediate neighborhood the addition of the ground-floor shopping space adds much needed amenities. All of these commercial spaces are oriented along the internal street to encourage pedestrian movement through Brunswick Center, to make a social meeting space and to provide a focus for future growth.

View of the commercial street (above, left) from under the covered walk that protects the shop entrances. Interior block of housing is in the background. The multistory pedestrian access to the housing units (above) seems to resemble a parking garage more than an entrance to one's home.

There are other aspects of the site planning, however, that do not resolve existing external circumstances. A major axis through the center establishes a strong linear movement along a now extinct minor street. While this linearity respects the existing grid pattern, it in no way acknowledges the primary diagonal points of arrival, dictated by the proximity of several major transportation centers—the Russell Square Station of the underground to the south, Euston, St. Pancras and King's Cross railroad stations to the north and west. While the prime movement is through the internal court, there is little articulation of entrance from the street except for a minor setback of the elevated plaza and a set of stairs. This minimal gesture tends to be overwhelmed by the mass of the housing, which ends in a manner that suggests it might well have continued if the street had not intervened. The only major gesture of entry occurs perpendicular to the major axis of movement,



Forward through the past

as a very formal response to the axis of Brunswick Square. The anticipation of arrival, however, is not fulfilled, as once through the portal, the axis is interrupted by the internal court, and the monumental set of stairs opposite leads one rather grandly to an ignominious concrete plaza above. By responding to such formal site conditions, the development misses the opportunity to make a unique place, resolving the various external and internal constraints.

Within the project there are also numerous points for discussion, mostly revolving around the issue of scale and aesthetic: the perfectly inconsistent finish of the concrete that was to be painted a glossy, cream white; the glass roofs that were not built over the court to provide enclosure for the commercial spaces and to relieve the barrenness of the upper plaza; the internal pedestrian access to apartments that resembles a parking garage more than an entrance to a house. These are all matters of concern for residents.

While the public spaces seem to suffer through omission, there are some thoughtful additions in living units. The typical studio, one- and two-bedroom flats are very straightforward in plan. But, unlike most of our own recluse, urban dwellings, the living rooms of these flats end in a flood of sunlight through a glass cage. Adjacent to this is a terrace entered from the bedroom. The step-back profile of the buildings allows the maximum amount of light to penetrate the interior and assures that the terraces, oriented east or west, receive maximum exposure to the sun. A central pedestrian space with open balconies for access to the living units is created inside each pyramidal block. Elevator access to each balcony level occurs at frequent intervals articulated on the exterior by the regular rhythms of the large rectangular towers. The perimeter housing, lower in height, maintains the existing street scale; the taller interior blocks face a raised plaza and form a grander enclosure to the "room."

Even though the whole development has that not-quite-finished feeling, window boxes full of geraniums and petunias have appeared on the terraces and colorful curtains hang in the glass enclosures. The variety of textures, patterns and colors give a sense of life, of activity, of response. Despite its apparent weaknesses, Brunswick Center presents a clear and strong alternative model for high density housing, both in form and materials. And as such it must be taken apart so that the pieces may fit together more snugly the next time. [SLR]

Data

Project: Brunswick Center, London, England.

Architect: Patrick Hodgkinson (early proposals prepared with Sir Leslie Martin).

Site: 13.2 acres in the Bloomsbury district of London.

Program: first phase (now completed) includes housing for 1300 residents, shops, offices and parking.

Structural system: two-way reinforced concrete slabs supported on cast-in-place columns, 18 ft on center.

Mechanical system: central boilerhouse with warm air exchanger in each unit.

Major materials: concrete, hard-burnt, dark brown brick facing on columns, metal-framed glass enclosures.

Cost: approximately 7.5 million pounds, 18 million dollars (1970).

Photography: courtesy of architect except as noted.

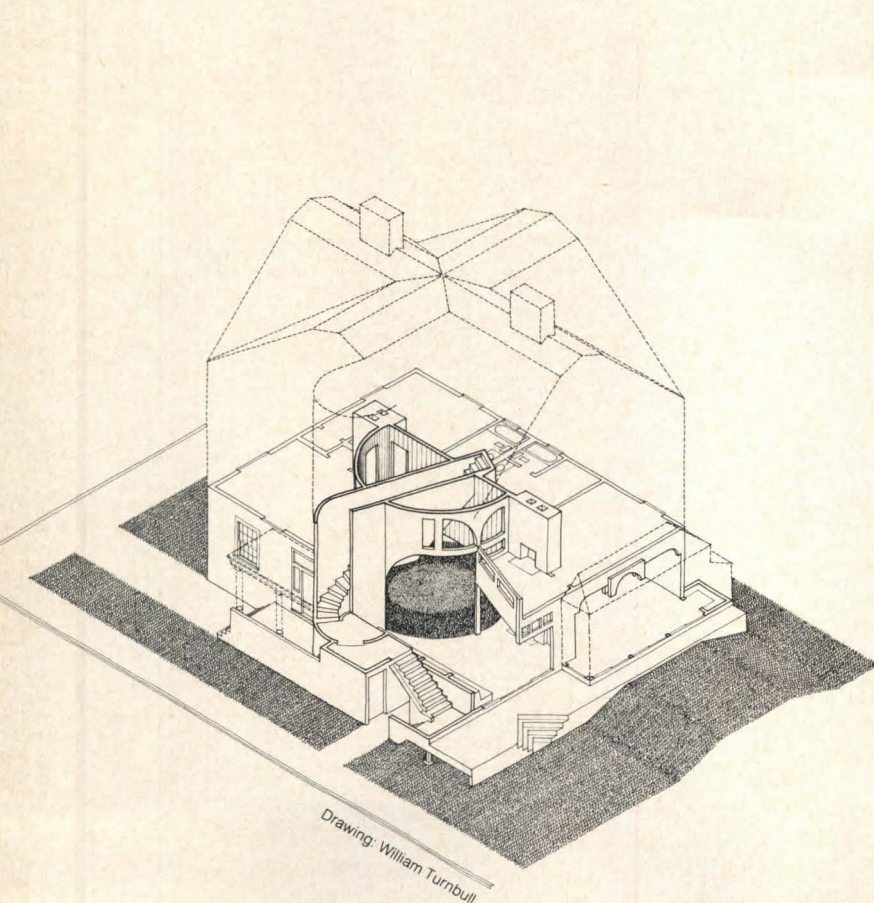
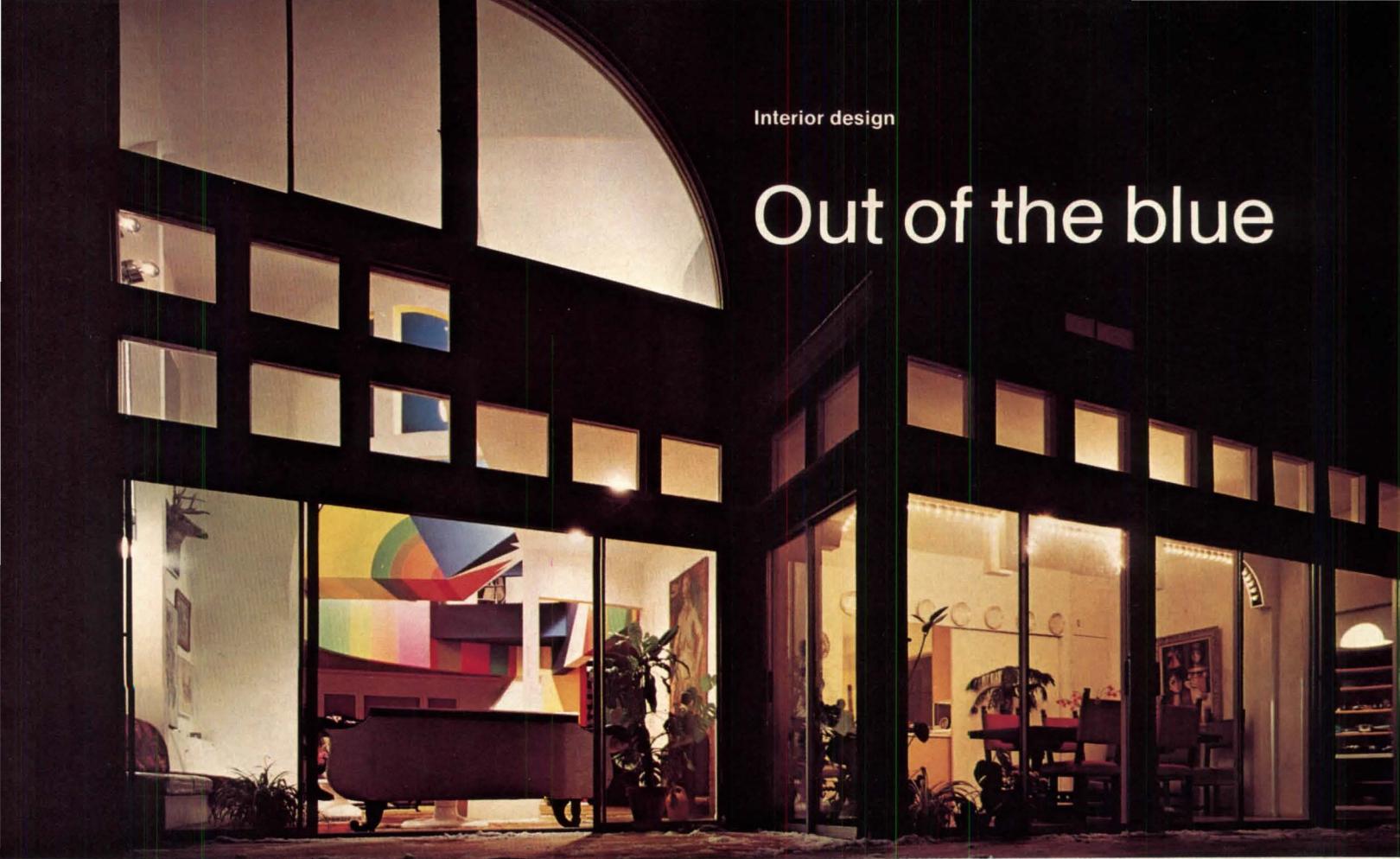


The monumental entrance off Brunswick Square (above and below) leads pedestrians to the project's internal commercial street and upper plaza.



Interior design

Out of the blue



Working within the shell of a shingle-style house, architect Charles Moore designed a new interior that both mirrors and contrasts with the original façade

With its stalwart shingle-style façade facing on a crowded street in Cambridge, Mass., the Murray house gives little clue to what happened inside during remodeling. Floors were removed to make two-story spaces; new walls have cutouts that repeat the openings in the new back façade that now lets light penetrate the interior. With much of the interior painted white, the spaces have a lofty quality very unlike the usual interiors of shingle-style houses. In other respects, the pattern of the window openings in the new rear façade, the cutouts in the interior walls and the assemblage of objects-as-design on the walls reflect much of the same eclectic quality present in the original style.

Renovating the three-story-plus-basement house was a fairly straightforward job in terms of program. The first two floors are a duplex for the owners, and the basement and third floors are income-producing apartments. Architect Charles Moore also recalls that the clients wanted something on the order of a Corbusian-style interior. While the spatial requirements were successfully fulfilled, the style in which they were executed bears little resemblance to Le Corbusier—which in the end didn't seem to concern the clients.

The first floor of the duplex contains the living room, dining room, kitchen and, somewhat removed from the house

proper, a home for a cheetah; the second floor has bedrooms, baths and a study. Inserted into the duplex is a grand, two-story, circular entry hall. Faced with the problem of providing access to the third-floor apartment, Moore designed an enclosed stairwell tumbling down through the two-story hall. Having conveniently solved this problem, Moore was faced with another: What does one do with this strange shape that crashes through the circular space?

There is not much to say about why a thunderbolt was painted on the underside of the stairwell. After making such a pompous and extravagant gesture as the circular entry hall, Moore felt that the solution to the stairwell problem should also be a put-down for the space. Among the group from Moore's office assembled to solve this dilemma, someone suggested painting clouds in the stairwell, but no one felt qualified as a cloud-painter. One thing leading to another, the idea of the cartoon-style thunderbolt was not long in coming.

Compared to the traditional mode of drawing board decision-making, this process of design may seem like a lack of forethought on the part of the designer who does not have his solution in hand before the opportunity arises. What is unique, however, is that leaving things to chance gives one the opportunity to do something so relevant and so irrelevant at the same time. No amount of forethought six months prior to construction could have produced this solution.

And of course the only reasonable thing to do, given the bolt of lightning, was to finish off the room with a rainbow, completing the marriage of nature and art. [SLR]



Data

Project: Murray house.
Architect: MLTW/Moore-Turnbull Associates.
Site: Cambridge, Mass.
Major materials: wood framing, plaster, paint.
Cost: not available.
Consultants: structural, Herman D.J. Spiegel.
Photography: Robert Perron.

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LOF

Incineration of hospital solid wastes

Lawrence G. Doucet

Solid waste generated daily in hospitals is ever increasing. How to evaluate and select an incinerator system that will handle this problem efficiently is discussed below

Increased use of disposable items has caused the quantities of solid waste generated at hospitals to have increased tremendously in recent years. Proper waste handling plays an important role in the control of infection, whereas improper collection or disposal methods may create health and safety hazards for patients, staff or visitors. On-site incineration has proved to be the most effective and, in many cases, the only legal method for disposing of these continually generated wastes.

Incinerator systems, however, vary widely according to type and method of operation, and their selection and performance evaluation is important to owners, architects, engineers, constructors, government agencies and others with varied interests. As a result, differing opinions often exist about what constitutes acceptable incinerator performance. However, of common interest are six factors that apply to all types of systems. It is through these factors that individual systems can be evaluated. They are:

1 *Capacity.* This is the weight of refuse per hr that an incinerator can burn. Selecting the proper capacity is probably the most important factor in planning and designing any installation. It affects equipment type and size, space and utility requirements, site selection, costs, and staffing requirements.

The actual selection of capacity is based on empirical data and on-site waste surveys; however, careful consideration must be given to daily and weekly peaks and frequencies, legal requirements, potential downtime and projected increases in waste loads.

Capacity should be selected in close conjunction with planning the total solid waste handling system. For the successful performance of overall waste handling operations it is imperative for the incinerator to burn satisfactorily at its design capacity.

2 *Reduction.* A properly designed and operated incinerator system can reduce hospital type of waste by as much as 90 to 98 percent of its original volume and, in addition, convert it to an easily handled, noncontaminated ash. When it does not, unburned combustible items are evident in the ash residue,

and the increase in the quantity of residue can be substantial.

The most common causes of poor reduction are: inadequate capacity; burning waste other than that for which it was designed, especially excessively wet material; improper operating procedures; improper operation or adjustment of incinerator equipment or auxiliary components. Poor reduction usually results in serious overloading of ash removal systems, significant increases in operating costs, and unsanitary and noxious conditions.

3 *Adaptability.* Hospital incinerators, except those specifically designed for pathological waste, must burn a heterogeneous mixture of many types of wastes. Usually, the average composition of this mixture is highly variable in moisture content, calorific value, specific volume, and quantities of glass, metals and plastics. Therefore, in order to be adaptable to this diversity, the installation must be designed for the most difficult burning conditions. Failure to do so often results in an installation of inadequate capability.

4 *Reliability.* This is the predictable availability of the incinerator for operation. A high degree of reliability is essential to the efficient operation of the entire waste handling system; excess outage can be disastrous in many ways. A reliable installation can be achieved by providing multiple units for stand-by capabilities; using materials of highest quality and durability; employing regular preventive maintenance programs; providing adequate inventory of spare parts for repairs; anticipating and providing for expansion of facilities and waste loads. Installed capacity must be increased as reliability decreases.

5 *Operation.* Incinerator operation should be as automatic as possible and require minimal special technique or training. In addition, installations must provide sufficient devices and alarms to assure maximum protection to personnel and equipment from any possible hazardous conditions.

6 *Pollution.* Incinerators have long been stigmatized as sources of malodorous, black clouds of smoke. However, this need no longer be so, since proper applications of the latest technology in furnace designs, operating techniques and air pollution control devices can assure that any installation will pass even the most stringent air pollution codes.

Pollution immediate to the site, including odors, dirt, dust, noise and contaminated water run-off, often proves more serious. These must be anticipated and eliminated in design, if possible, or otherwise kept to a minimum by proper operating procedures.

The above six factors provide a common basis for comparing the design and operation of the many available systems. A thorough understanding of these factors is essential in order to evaluate and select the system that will provide the best possible performance.

Author: Lawrence G. Doucet is a member of the Central Utilities Group at Syska & Hennessy, engineers, New York City.



A jewel of a library in porcelain-enameled steel

The Tuckahoe Branch is one of five in the Henrico County, Virginia, Public Library system serving the suburban county neighbor of Richmond, Virginia.

The architects created a refreshing expression in clean, crisp planes of matte-finish white porcelain-enameled panels. Any tinge of sterility was forestalled by the skillful introduction of highly reflective glass over large areas of the structure.

Architects are making increasing use of porcelain-enameled steel for aesthetic as well as for practical reasons. The development of Nature-tone finishes adds a new dimension to the use of porcelain-on-steel panels, and designers can choose from a palette of twenty-four low-chroma hues. Porcelain-enameled panels, regard-



less of color or finish, are sturdy, light, corrosion-resistant, colorfast, and clean.

Bethlehem supplies enameling sheets to fabricators who form and coat architectural panels. Write us for information on Nature-tone finishes. Bethlehem Steel Corporation, Bethlehem, PA 18016.

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Curtain wall inspection

Harold J. Rosen, PE, FCSI

Failures occurring in curtain walls prompts these suggested guidelines and procedures to implement a quality control inspection program covering design, fabrication and erection

"Specifications clinic," in Nov. and Dec. 1972 dealt with the need for a contractor quality control program to insure proper execution of the work by means of thorough inspection.

Those articles set the ground rules for the mechanics of such a program. The requirements detailing the specific items to be inspected should generally be specified within each of the technical sections that require inspection.

A case in point is the growing concern with the failures that occur in curtain walls; one, the loss of glass and metal panels during windstorms, which affects public safety; and two, the water infiltration which disturbs the occupants and the building owner. To assure curtain walls relatively free of defects that lead to failures requires proper design and construction. The Jan. 1973 "Specification clinic" reported on the design consideration explored at a joint ASTM/CSI/NBS symposium. It is the construction process involving fabrication erection that now merits attention and inspection.

The Architectural Aluminum Manufacturers Association (AAMA) has published a timely article on "Installation of the Aluminum Curtain Wall," Volume 7 dated Jan. 1973. The article outlines the need for proper installation to prevent even a well-designed system from being degraded by faulty workmanship. The key to a successful installation is recognizing that the curtain wall is a highly engineered factory-fabricated product whose components are manufactured to very close tolerances. Its installation, however, requires that precision components be applied to a field-built structure of a much lower degree of dimensional accuracy. The interrelationship of these widely divergent elements requires good teamwork by the architect, the general contractor and the curtain wall subcontractor.

To implement a quality control inspection program that will monitor all the aspects of design, fabrication and erection, the following guidelines and procedures are suggested.

Design phase

1 Review of design drawings and specifications by professional consultants versed in curtain wall design and construction.

(At the present writing, there are no more than a half dozen such qualified consultants.)

2 This review should include assumed wind loads, glass thickness selection, mullion anchorages, glazing system, structural adequacy, thermal expansion and contraction.

Shop drawing and mock-up phase

1 The review of shop drawings for structural adequacy, glazing system, thermal movement by the engineer and the architect of record and by a professional consultant.

2 Submission of necessary calculation for design of structural elements by the fabricator and checking by the engineer and the consultant.

3 Observation of tests of curtain wall mock-up for structural performance and water infiltration.

4 Recommendations for changes to design based on test of mock-up.

5 Review of all materials submitted for approval, including glass, gaskets, sealants, metals, flashing, for compliance with specifications.

Fabrication phase

1 Inspection of shop welding and bolting by a certified laboratory, the engineer of record or the curtain wall consultant.

2 Checking tolerances of metal components.

Erection phase

1 Metal component installation

a. Check erection tolerances.

b. Check clearances for proper installation.

c. Check alignment.

d. Check structural connections and fastening systems.

e. Check flashing and drainage systems.

2 Glass installation

a. Check glass for thickness, nicks and abrasions, edge conditions, tolerances.

b. Check actual installation procedures such as handling, wedging, forcing, etc.

3 Sealant application and glazing techniques

a. Check weather conditions.

b. Check glazing rabbet for cleanliness and absence of foreign objects.

c. Check cleaning and preparation of glazing rabbet.

d. Check installation of setting blocks.

e. Check application of primer.

f. Check mixing of sealant.

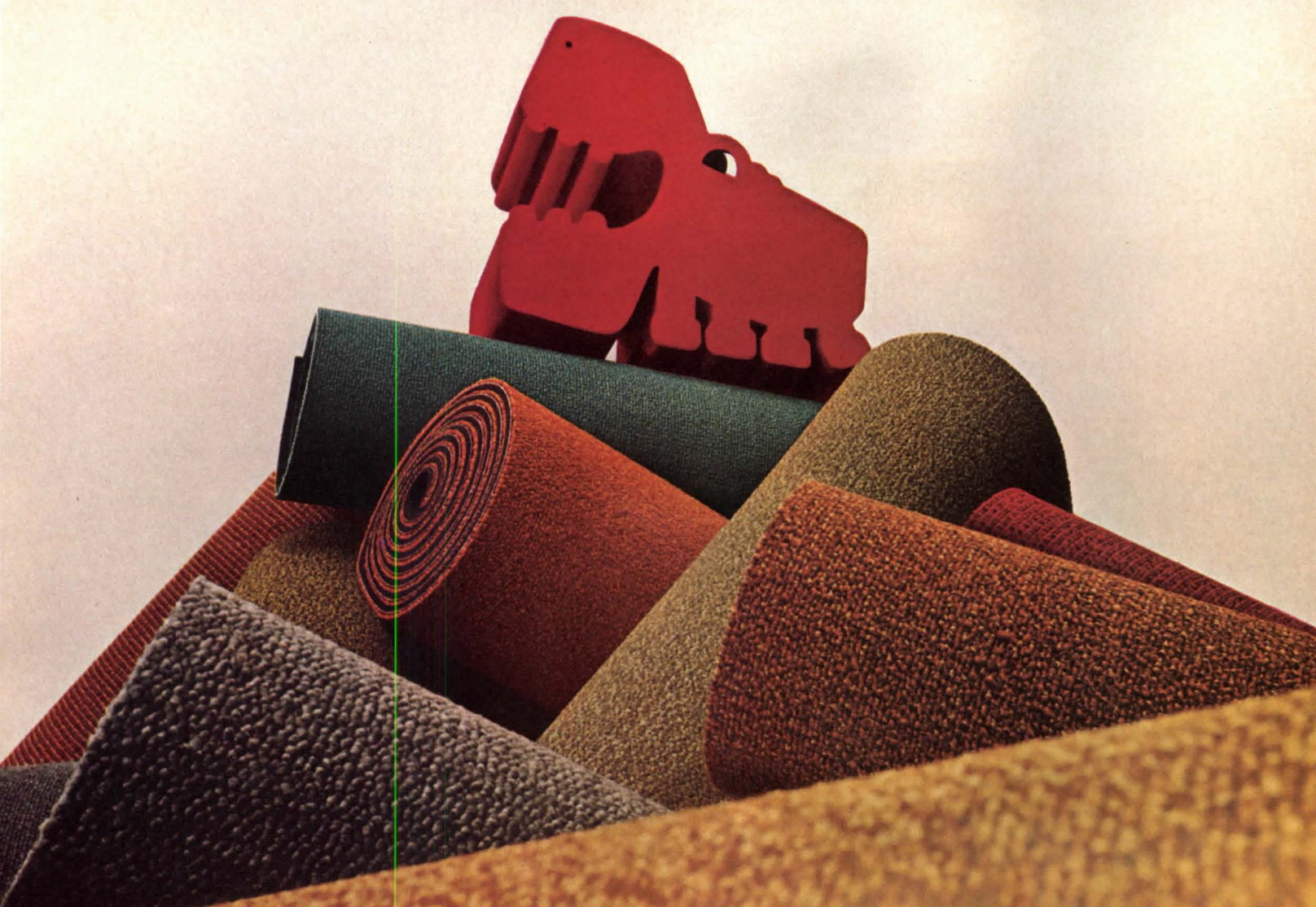
g. Check sealant applications, joint configuration and tooled appearance.

4 Field check for water leakage

a. Observation of selected areas subjected to field hose tests performed in accordance with NAAMM tests method FC-1-69.

5 Report on failures and recommend corrective measures by curtain wall consultant.

Author: Harold J. Rosen is Chief Specifications Writer of Skidmore, Owings & Merrill, New York City.



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Settling negligence claims

Bernard Tomson and Norman Coplan

Does an insurance company's unreasonable delay in acting on a negligence claim justify its insured in settling without the insurer's consent? Two courts have said no

Despite the fact that an architect carries liability insurance, an owner may attempt to withhold payment of his fee because of alleged errors or omissions. The architect who finds himself in such a situation is in a very difficult position. If he settles the owner's claim, he may jeopardize his insurance coverage. If the insurance carrier delays in resolving the dispute or takes the position that there is no liability, the architect is subject to a hardship arising from the withholding of his fee until the matter can be resolved through litigation or otherwise.

Although an insurance carrier is not obligated to settle a claim asserted against an architect, or other person, it must act with reasonable expedition in processing and dealing with such claim. If it fails to do so, the claim may be settled by the architect without loss of coverage under the policy, and despite a specific provision in the policy that settlement may not be so effected. This was pointed out by the Supreme Court of Nebraska (*Otteman v. Interstate Fire & Cas. Co.*) which had before it a situation where the insurer failed to act over a period of seven months on a claim asserted against its insured and the insured settled the claim without the insurance carrier's consent. The Court, in that case, stated:

"We have no hesitancy in finding that the evidence amply discloses an unreasonable delay on the part of the defendant in processing the plaintiff's claim. We further find that such delay amounted to a denial of coverage and constituted a waiver of any right to insist on the policy provision regarding defense or settlement."

The New York Court of Appeals, in a recent decision (*Rosen & Sons, Inc. v. Security Mutual Ins. Co.*, 31 N.Y. 2d 343) had occasion to consider similar issues in a suit instituted by a building subcontractor against a liability insurance carrier under a "wrap-up" policy which had been secured by the general contractor and under which the subcontractor was named as a party insured. In this case, the general contractor had asserted a claim against his subcontractor arising out of damage to the roof installation allegedly caused by the negligence of said subcontractor. At the time of such claim, there was owing by the general contractor to the subcon-

tractor the sum of \$80,000 for work performed. The general contractor refused to make payment unless it was reimbursed for the damages which it claimed.

After a period of time the subcontractor made a settlement with the general contractor so that he could be paid the balance of his fee. The subcontractor then instituted suit against the insurer for reimbursement of the loss under the terms of the policy. The insurance company resisted the legal action on the ground that the policy of insurance, by its express terms, provides that the insured shall not "voluntarily make any payment" on any risk within the obligation of the policy, and that no action shall lie against the insurer until the amount of the insurance obligation "shall have been finally determined either by judgment . . . or by written agreement of the insured, the claimant and company."

In this litigation, the subcontractor took the position that when the claim was made against him, he had notified the insurance carrier, but that the carrier had done absolutely nothing to adjust or otherwise process the claim. He asserted that the insurance company would neither assert nor deny its coverage and that he was placed in an untenable position due to the large amount of money being withheld because the insurance company remained completely inactive under its insurance policy.

The New York Court of Appeals, in considering the rule of law to be applied to the issues presented, said:

"The New York rule is that where an insurer 'unjustifiably refuses to defend a suit, the insured may make a reasonable settlement or compromise of the injured party's claim, and is then entitled to reimbursement from the insurer, even though the policy purports to avoid liability for settlements made without the insurer's consent.' . . . But the insurer's obligation to act in good faith for the insured's interests may be breached in other ways than by refusing or neglecting to defend a suit. It may be breached by neglect and failure to act protectively when the insured is compelled to make settlement at his peril; and unreasonable delay by the insurer, in dealing with a claim, may be one form of refusal to perform which could justify settlement by the insured."

In response to the insurance company's motion to summarily dismiss the action, the Court concluded that a triable issue of fact was presented as to whether the insurance company had unreasonably delayed taking action on the negligence claim. Where the company had notice of the claim and knew, or ought to have known, of the economic pressures for settlement exerted by the general contractor, the Court ruled that a waiver resulted of the provision of the policy which prohibited settlement by the insured without its permission in writing.

Authors: Bernard Tomson is a County Court Judge, Nassau County, N.Y., Hon. AIA. Norman Coplan, Attorney, is Counsel to the New York State Association of Architects, Inc./AIA.

FOUR MO-SAI TEXTURES & COLORS IN PET PLAZA

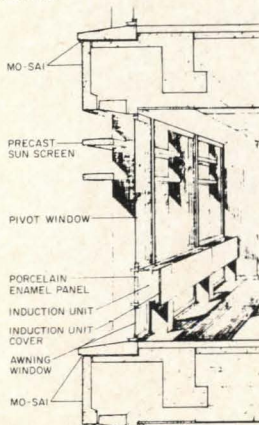
ST. LOUIS, MISSOURI

Mo-Sai color and texture versatility is demonstrated well in this distinctive St. Louis office tower. Four different Mo-Sai colors and textures, in exposed black and pink granite and crushed white limestone, were used to coordinate building and plaza areas. Mo-Sai panels on the main building, paving for the plaza, Mo-Sai railings on observation balcony and surrounding the plaza all complement the architectural design. White concrete sunscreens, also supplied by the Mo-Sai manufacturer, provide a contrasting texture-color.

Clip angles cast in the Mo-Sai units were used to bolt them to poured-in-place concrete structural members.

PET PLAZA / St. Louis, Missouri
Architects: A. L. Aydelott & Associates
Structural Engineers: Severud-Perrons-Sturm-Conlin-Bandel
General Contractor: G. L. Tarlton Contracting Co.

Stouffer's Riverfront Inn, a circular tower motor hotel, also built by a Mo-Sai manufacturer, is in the background.
Architect: William B. Tabler, N.Y.C.



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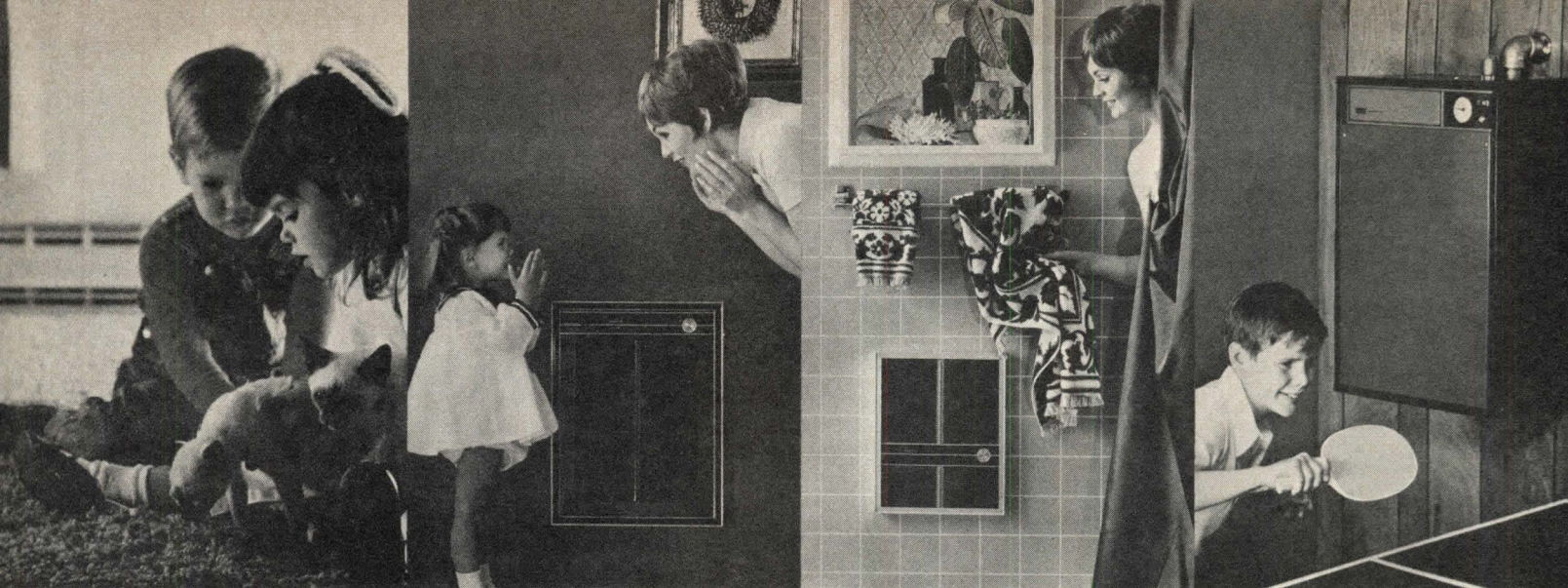
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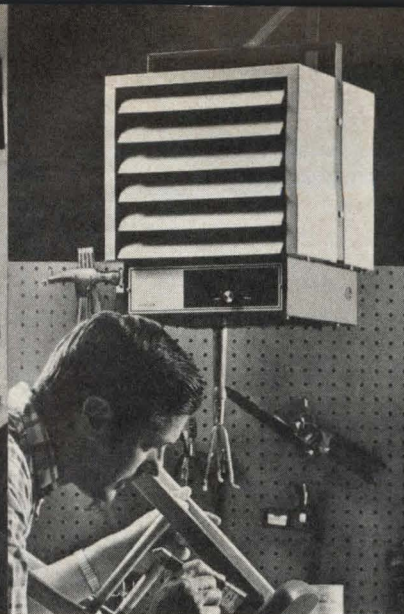
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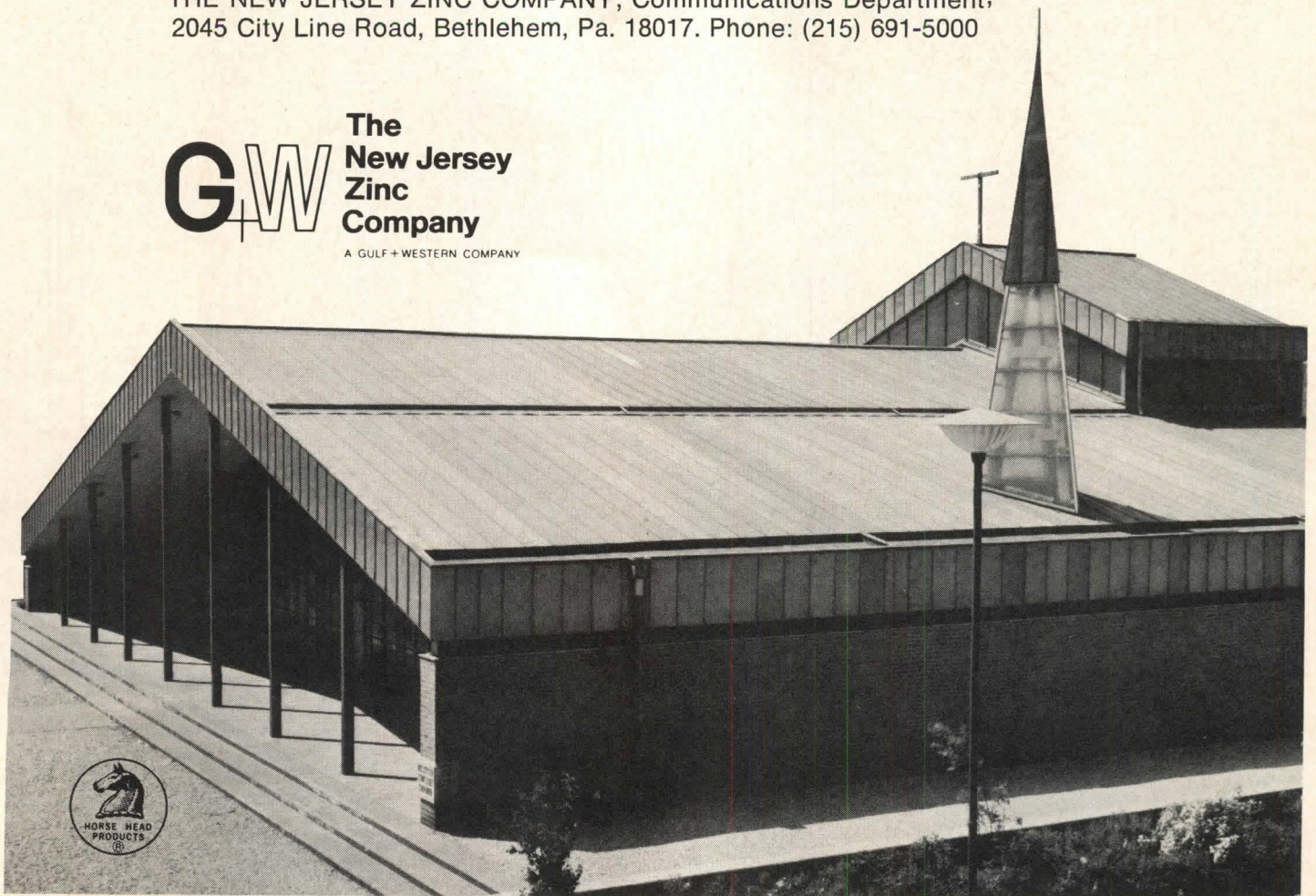
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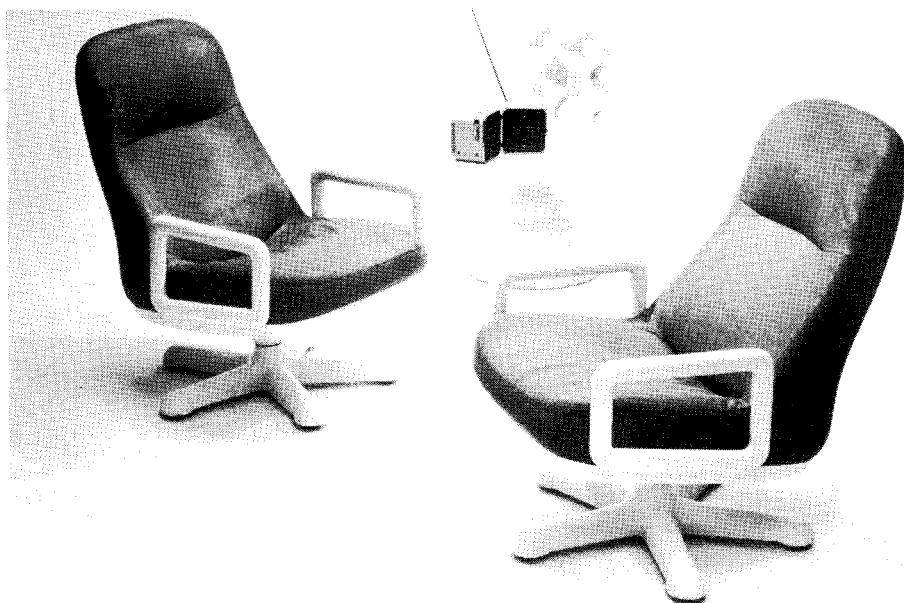
Products and literature

Chairs. Designed for the Straessle Intercollection of Switzerland, swivel armchair of molded urethane has a steel internal structure in the base, seat and arms. Upholstered seat and back are available in either leather, vinyl or fabric. On casters. Also part of this collection, a chair with a bar stock steel base, chrome plated, with leather cushions on back and seat. Thonet Industries, Inc.

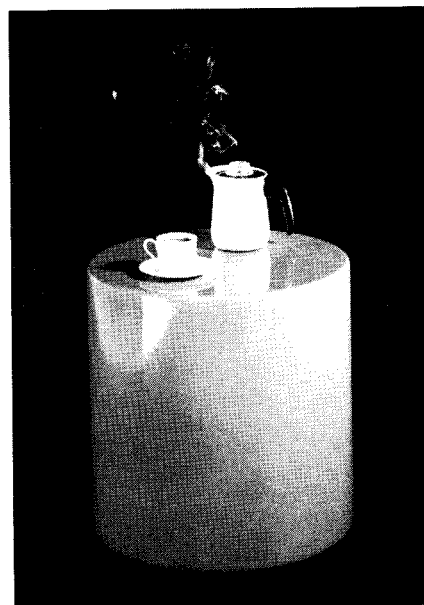
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Roofing system. Steel-framed, seamless particle board panels 8 ft wide and up to 30 ft long, supported by tapered steel girders, are said to be competitive in cost and quality with conventional industrial roofing systems. Panels are made using a fabricated steel "C" channel frame and are fastened to the frame using specially designed self-drilling, self-tapping screws. Kaiser Steel Corporation.

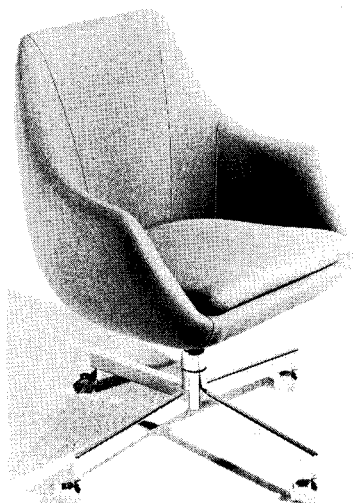
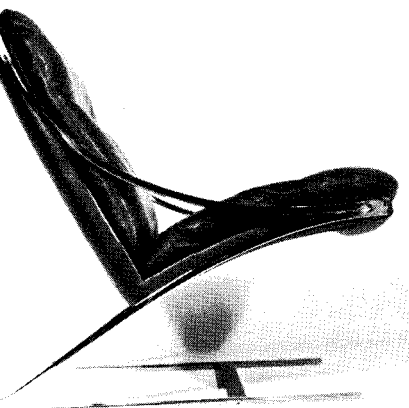
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Seating

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Acousti-pad. A layer of mastic sandwiched between kraft paper and resinated cotton padding, sound control material is described as economical, easy to cut, handle and install. Globe Industries, Inc.

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[continued on page 124]

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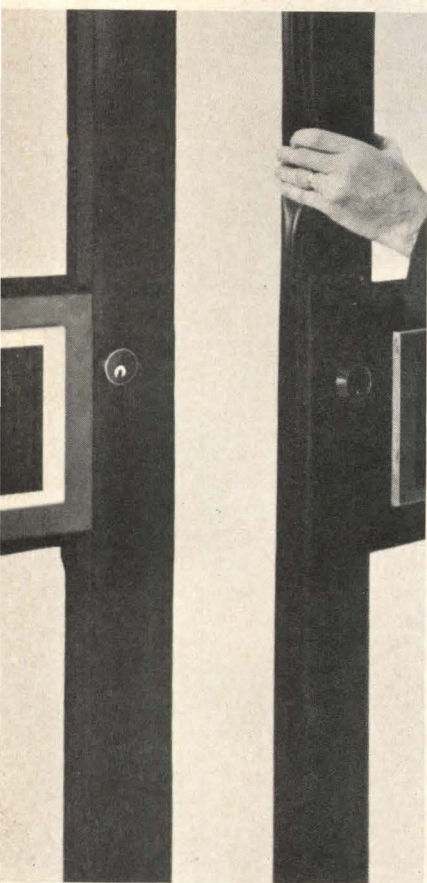
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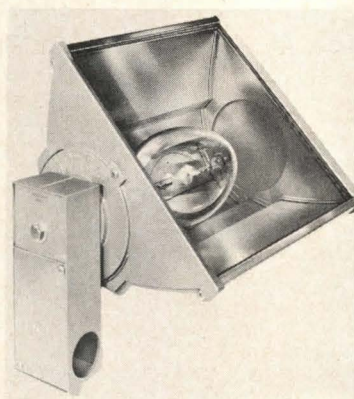
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Exterior luminaire. Interchangeable dual reflectors permit a choice of beam spreads and a variety of beam patterns to illuminate buildings and signs. Mounting distance is 35 percent closer than normal, according to the manufacturer. Accepts up to 400 w. metal halide, mercury vapor and high pressure sodium lamps, has heat- and impact-resistant tempered glass lens. Marine grade, copper-free aluminum alloy housing and nonmagnetic stainless steel hardware with 360 degree aiming scale. J. H. Spaulding Co.

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Circle 108 on reader service card



Lumunaire

Pneumacel carpet cushion. Individual polyester fibers, made up of microscopic closed cells that are permanently inflated with an inert fluorinated hydrocarbon and air, are bonded with thermoplastic to form seamless cushion. It is said to resist breaking or tearing during installation and the service life of the carpet, provide excellent load support and reduce impact sound transmission as well as sound reverberation within a room. It also has thermal insulation properties and can be installed over almost any surface, interior or exterior. The cushion meets applicable government tests for flammability and smoke generation, and comes in commercial and residential weights. E.I. du Pont de Nemours & Co.

Circle 109 on reader service card

Automated specification system. Said to increase accuracy, be time-saving, cost-saving and easily modified, this architectural and engineering specification system requires no in-house equipment or staff. It can be used by any size office, can load any specification, in any format for any type of construction technique or government regulation, and provide editing, updating, typing and printing services. Omnidata Services, Inc.

Circle 110 on reader service card

Trash handling. Small size trash compactors which are said to handle as much as 550 cu ft per hr of refuse need as little as 70 sq ft of space, reduce refuse volume by more than 5 to 1. Available in two sizes, maker states they are suitable for incinerator conversion and new installations in high rises and institutions. Both models operate automatically and an alarm indicates when container is full. Standard refuse bags, cans or barrels may be chute-fed, hand-fed or both. Auto Pak.

Circle 111 on reader service card

Electronic security. Control panel of electronic security system monitors and/or locks and unlocks doors of office buildings, schools, hospitals, plants or warehouses. Composed of modified standard hardware, the system has electric hinges and locks wired directly to a central control panel. Audible and visual alarms, which can be wired into off-premises alarm systems, can be deactivated only by a keyed reset switch near the door itself, which forces security guards to investigate every incident. All circuitry is solid state, and the manufacturer provides several options to meet various security requirements. Hager Hinge Co.

Circle 112 on reader service card

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[continued on page 128]



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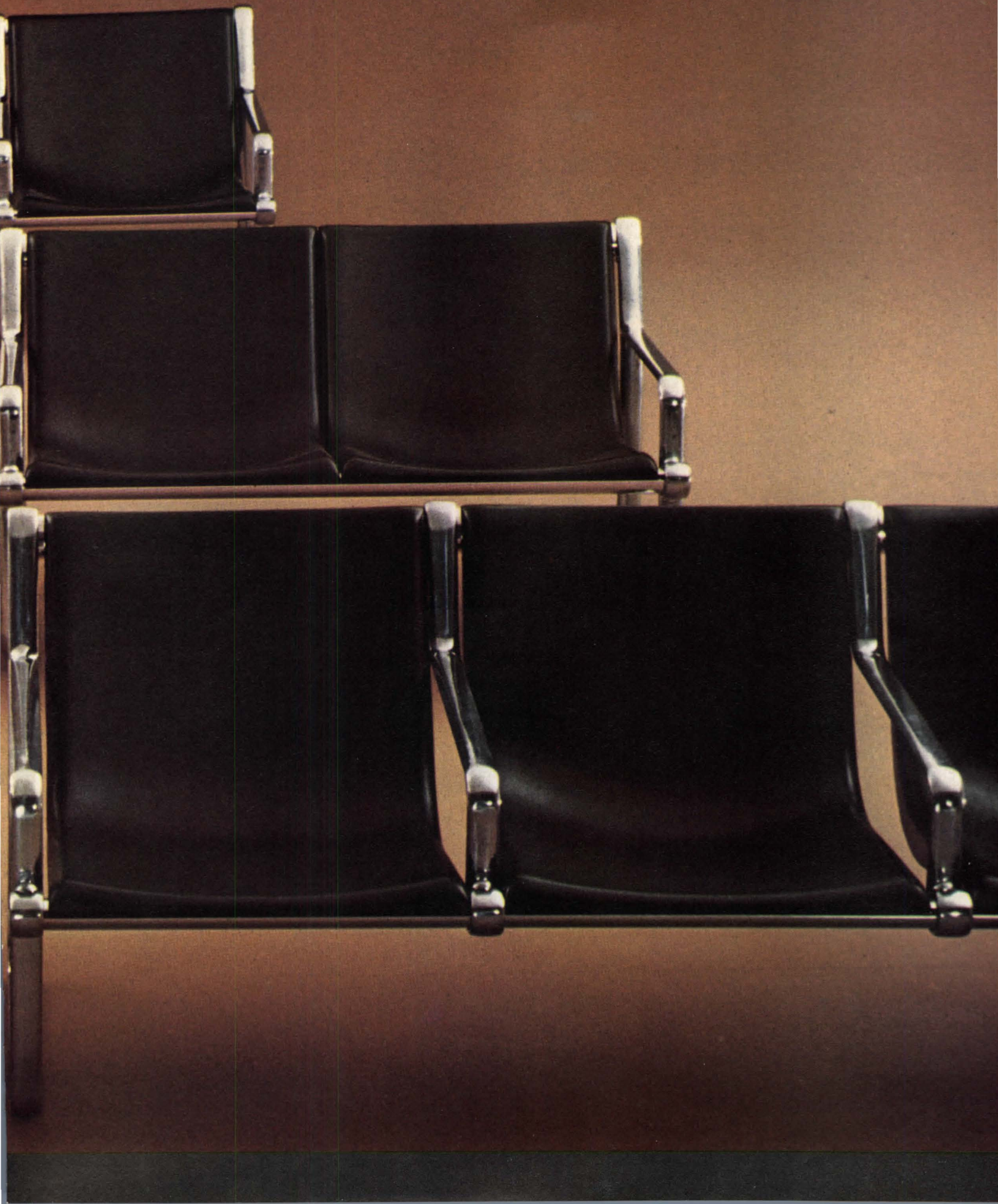




Andrew Ivar Morrison and Bruce R. Hannah design for Knoll

Two new additions to their suspension seating system are now available. The Reversible Pad group offers practical, removable upholstery cushions, while the plastic shell provides a neat solution to the problem of seating in high use applications.

Knoll International operates in 25 countries.



**Minimum .5 Footcandles,
50' Centers,
250 W Mercury Vapor,
14' High.**

All that and character too?



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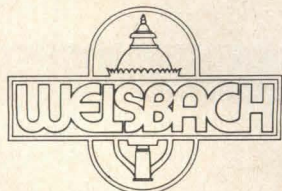
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Welsbach provides you with an outstanding selection of character lighting fixtures. True architectural lighting to add an element of interest while still meeting your basic area lighting requirements.

We have been manufacturing quality lighting since 1877. Welsbach gaslights lined the streets of New York, Philadelphia, Baltimore, San Francisco and many smaller towns.

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Send for our new illustrated catalog.



**Welsbach Lighting
Products Company, Inc.
3001 E. Madison Street
Baltimore, Md. 21205**

Agent Inquiries Invited. Territories Available.

Circle No. 398, on Reader Service Card

Products continued from page 124

Porcelain panels. Brochure details Vitriform 90, a new porcelain-on-steel building material that can be formed with the porcelain already on it at angles up to 90 degrees without spalling, chipping or crazing. It can be used without moldings. Brochure states product is competitive in price with other partition and wall coverings and can be used with any type of wall system. AllianceWall Corp.

Circle 115 on reader service card

Long-life lamps. Designed to reduce ceiling maintenance and replacement costs, these long-burning lamps are for use in large ceiling areas where lighting is more for effect than for function. Available in either 25 or 75 w., they are said to approximate light output of standard 15 and 75 w. incandescent bulbs. Integrated Ceilings Inc.

Circle 116 on reader service card

Literature

Timber. Redwood and plywood sidings are illustrated in an eight-page brochure. Pattern illustrations with panel characteristics and other technical data are shown. One section features Ruf-Sawn 316, a textured woodgrain medium density overlay plywood siding. Simpson Timber Co.

Circle 117 on reader service card

Glass. Brochure includes a selection guide to performance and appearance characteristics of clear, tinted and reflective glass in single and double glazing, ceramic-coated and reflective spandrel glass. Separate sections are devoted to integrated system of doors, stiles and rails and safety glass doors. PPG Industries, Inc.

Circle 118 on reader service card

Skylights, translucent walls. One brochure shows ways translucent panel system can be used as skylights and sky-roofs, provides technical data, detail drawings and specs. A second gives design details and specs for both the translucent wall system and the Panel-Unit Wall System. Kalwall Corporation.

Circle 119 on reader service card

Expansion joint seals, covers. Details, tables and engineering data in this 24-page brochure give the architect and engineer a system approach to expansion joint selection. Construction Specialties, Inc.

Circle 120 on reader service card

Washroom equipment. An actual installation of recessed stainless steel equipment and laminated plastic toilet compartments are shown in 1973 catalog. Updated guide specifications and a complete list of units that conform to U.S. government specifications are also given. One section is devoted to stainless steel equipment for hospitals, nursing homes and other medical facilities. A four-page numerical product index is available as a supplement to the catalog. Bobrick Wash-room Equipment Co.

Circle 121 on reader service card

[continued on page 133]

Collectors Choice

From the Contract Carpet Pros

What every commercial interior designer should know: Gulistan® Carpet offers seven different carpet patterns especially engineered to take heavy duty wear. Design your own color combination from a group of 42 yarn colors. All in anti-static, Zefran® Blend CR-4 from Dow Badische. For an appointment to choose your specific needs, contact Ed Cassinelli, Contract Manager, at (212) 575-2298.



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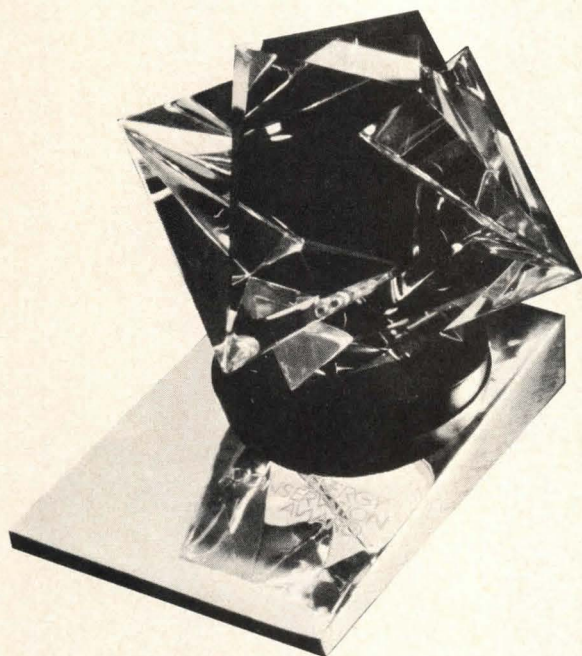
by

J.P. Stevens



Do you have a building design that helps conserve our nation's fuel?

Show our Awards Jury a building design that helps conserve energy—and you could win one of the Energy Conservation Awards Owens-Corning will present this year.



The Owens-Corning 1973 Energy Conservation Award: "Triangles," a Steuben Crystal sculpture that captures and reflects light from multiple triangular planes.

The Awards Jury will be looking for three things: Creativity. Originality. And most important—*designs that save energy.*

Too many buildings waste fuel and contribute to environmental pollution.

By offering Energy Conservation Awards, Owens-Corning hopes to stimulate new ways to conserve energy. It also lets us honor the architects and engineers who do the best job of designing buildings and mechanical systems that conserve fuel.

Who can enter.

Any registered architect or professional engineer practicing in the U.S. is eligible. As an individual. Or in a team. But to qualify, your entry must be a commissioned building project—in the design

*T.M. Reg. O.-C. F.

process, under construction, or a completed structure.

Although Fiberglas* products are an excellent way to conserve energy, their use is not a requirement.

Four entry categories.

A winner will be selected in each of these categories:

Institutional—schools and hospitals, for example.

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

Industrial—including manufacturing plants, research centers, warehouses.

Governmental—post offices, administrative buildings, and military structures to name a few.

The Awards.

Winning architects and/or engineers will receive the Steuben Crystal sculpture "Triangles." Owners or clients associated with winning entries will receive other Steuben Crystal awards.

Send for entry details now.

Completed entries must be submitted by August 31, 1973. Winners will be selected in September and notified in early October.

For a brochure giving complete details, contact your local Owens-Corning representative. Or write H. M. Meeks, Owens-Corning Fiberglas Corporation, Fiberglas Tower, Toledo, Ohio 43659.

The distinguished Awards Jury.

Winners will be selected by:



Walter A. Meisen, Assistant Commissioner Public Buildings Service, General Service Administration, Washington, D.C.

James E. Wheeler, President, Wheeler and Stefoniak, Inc., Dallas.



Ronald E. Aspgren, Chief Corporate Architect, Montgomery Ward, Chicago.

Robert B. Hollister, Vice President, Turner Construction Co., Cincinnati.



Professor Gifford Albright, Dept. of Architectural Engineering, Pennsylvania State University.

John A. Vincent, Project Engineer, Energy and Process Systems Division, VTN Consolidated Inc., Irvine, Calif.



Frank M. Lebman, President, Synergo Co., Philadelphia.

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1148 NW Leary Way, Seattle, Wa. 98107. Olympic Stain. A division of COMERCO, INC. 

Products continued from page 128

Lighting with plastics. First of a series, publication covers plastics commonly used in lighting: acrylic, polystyrene, vinyl, polyethylene, polycarbonate, butyrate and impact acrylic. Each is analyzed for its use in lighting and its optical and physical characteristics. Subscription is free to all who design or specify lighting. Plaskolite Inc.

Circle 122 on reader service card

Lighting poles. Octagonal and round poles of spun pre-stressed hollow concrete described in brochure are available in lengths from 13 to 49 ft, in plain or colored concrete or terrazzo finishes. Said to be maintenance-free, they are suitable for street, park and area lighting. Centrecon, Inc.

Circle 123 on reader service card

Insulating concrete. Booklet details lightweight insulating concrete for roof-deck applications. It contains a density selection guide, physical properties data as well as information on its use over steel form units, structural or precast concrete roof slabs and form boards. Perlite Institute, Inc.

Circle 124 on reader service card

Diaphragm design. Guide for diaphragm design including load tables is available in a 26-page booklet. Also available is the 1973 edition of Steel Roof Deck Design Manual which shows fire resistance ratings obtainable with steel roof decking. Includes detail drawings of sump pans and other accessories and contains revised basic Design Specifications. Steel Deck Institute.

Circle 125 on reader service card

Masonry reinforcing. Guide is a handy tool for architects and engineers. A complete line of wire masonry wall reinforcing is described with detailed specifications. Correct reinforcing is illustrated for all types of masonry walls. Complete information on sizes, finishes and packaging is included. AA Wire

Circle 126 on reader service card

Permasnap coping. A gutter/chair system consisting of a perforated cleat, a molded styrene chair, heavy gauge .063 coping in 10-ft length is described in 1973 catalog. A special adhesive bonds the cleat to the parapet eliminating costly imbedded anchor bolts. System withstands wind uplift of 60 lbs per sq ft. No nails, screws or other fasteners are required; coping snaps onto the cleat. W.P. Hickman Co.

Circle 127 on reader service card

Sovent drainage system. A 12-page brochure contains information on design features, typical costs and cost savings, applications and how and where to order. This system uses a design concept that permits drainage installation without separate venting stacks. Said to offer advantages such as space-saving design, nonclogging, quieter operation, and use of lightweight corrosion-resistant material over traditional two-pipe installations to mechanical engineers, contractors, architects, building and plumbing officials, building owners. Phelps Dodge Industries, Inc.

Circle 128 on reader service card



Tamper-proof hinges that hide

Soss Invisible Hinges can't be seen or tampered with when a door is closed. Hinge bodies are mortised into the door and jamb to discourage any intruder. Specify Soss invisibility for beauty and security. Our new catalog includes application and installation ideas on all 20 models. Look for it in Sweet's, or write to Soss Mfg. Co., Div. of SOS Consolidated Inc., P. O. Box 8200, Detroit, Mich. 48213.



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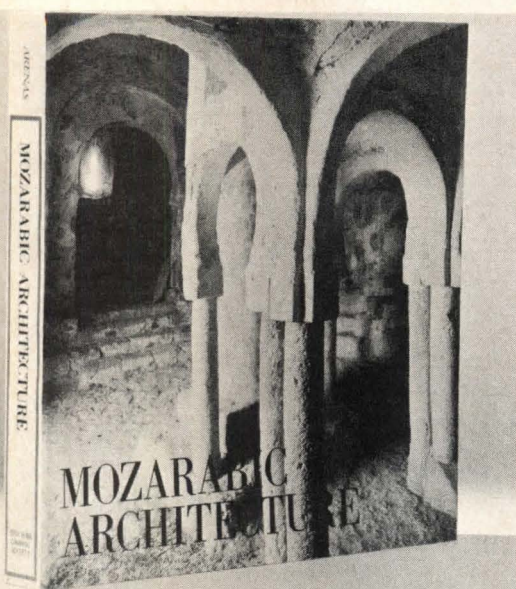
StarTrack consists of three individually controlled circuits for ultimate flexibility and light control. Track sections, in 4', 8' or 12' lengths, plug together via connectors to form straight runs or patterns. Quick, economical installation; 60 amp capacity. May be surface-mounted or recessed. Companion StarSpot fixtures, with instant circuit selection, for all popular lamp sizes. IMMEDIATE DELIVERY! Write Dept. PA for full-color catalog.

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Recent titles



Mozarabic Architecture by Jose Fernandez Arenas. Greenwich: New York Graphic Society, Ltd., 1973. 281 pp. \$37.50.

This thoroughly beautiful, large book of extraordinary color and black and white photographs documents surviving Christian churches and chapels built during the Moslem occupation of Spain, which began with the conquest in 711 A.D. Although many Christians retained their faith, they were assimilated into the Moslem culture and given the name Mozarab, which meant Arabized, by their conquerors. While this Mozarabic culture created by Hispano-Gothic Christians existed under varying conditions in different geographical regions for four centuries, it achieved a well-defined character that was clearly differentiated from the Visigothic and Romanesque style of art and architecture.

In this book the author examines ground plans, structural elements and uses of materials characteristic of Mozarabic architecture, and he discusses its wide influ-

ence over the entire Iberian peninsula and beyond the Pyrenees.

The book is printed in four languages, and the English translation, unfortunately, reads like a translation. The sections dealing with the historical and cultural context of this architecture of an embattled period of Christianity could be clearer. In fact, if you want to get the most out of what is otherwise a most interesting, and certainly beautiful book, it might be wise to brush up on your Spanish history first.

A Computer Perspective by the office of Charles and Ray Eames. Cambridge: Harvard University Press. 1973. 174 pp. \$15.

This graphic history of the origin and development of the computer begins with the tabulating and sorting devices used in the 1890 U.S. census and culminates in the intricacies of the modern, problem-solving computer. A continuing pictorial display, the book's decade-by-decade format is illustrated with photographs and drawings of inventions, documents, memorabilia and artifacts collected from around the world. The book, which was inspired by the Eameses' show *A Computer Perspective* which has run at the IBM Exhibit Center in New York City since 1971, presents a different and most human perspective for the history of the computer.

Lost London by Hermione Hobhouse. Boston: Houghton Mifflin Company. 1972. 250 pp. \$20.

Lost London, like *Lost New York* of a few years ago, is an awfully hard book to look at for anyone who loves the riches of old buildings and old places. It's sad to look at hundreds of photographs of things gone and realize that in each case a way of life has disappeared with them. Some of the

buildings shown in this volume were damaged beyond repair during World War II, but most have been demolished stone by stone in the name of "progress."

Buildings are conveniently divided into building-type groups, which makes it easy to find things like the 22 demolished Wren churches. And the recent demolition of the Euston Arch, the Coal Exchange and Carlton Mews bring a sense of immediacy to this catalog of destruction, which ends with a depressing array of threatened buildings: St. Pancras and King's Cross Stations, Holy Trinity, Albert Bridge and others. The volume is abundantly illustrated, but that doesn't make it a good coffee-table book. It isn't. And it would be even worse bedtime reading.

Theatre Planning. Edited by Roderick Ham. Toronto: University of Toronto Press. 1972. 292 pp. \$27.50.

This book is especially welcome in view of the increasing growth of interest in the performing arts. It brings together an enormous amount of information, not only on the design of performance and auditorium spaces and their ancillaries, but also on such matters as acoustics, sight lines, heating and ventilating and the comparative economics of various design solutions. It stresses that theater design should not only be technologically up-to-date, but that it should also be alive to the numerous changes that have occurred in the way performances are staged.

Modern Architectural Detailing: Contemporary Architectural Design, Volume 5. Edited by Konrad Gatz. New York: Van Nostrand Reinhold Company. 1973. 268 pp. \$19.95.

[continued on page 140]

Efficient building idea: Recent report tells how to solve the acoustical problems of open offices.



Good news for architects who like the design freedom of open offices—but don't like the acoustics.

Tests by an independent acoustical testing agency show you can get excellent open office acoustics by using these three things (with the help of an acoustical consultant):

1) An acoustically non-reflective ceiling—so the sound won't bounce off to other areas.

2) Sound-controlling screens—to stop sound from going directly

from one area to another.

3) A masking sound system—so personal conversations can be held in a normal voice without being overheard.

Of all the ceilings tested for Owens-Corning Fiberglas—including expensive coffered and baffled systems—the best was Owens-Corning's Nubby II Fiberglas* Ceiling Board in a standard grid suspension system.

If you'd like the whole story,

send for our free design guide, "Achieving Acoustical Privacy in the Open Office."

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Energy Conservation Award.

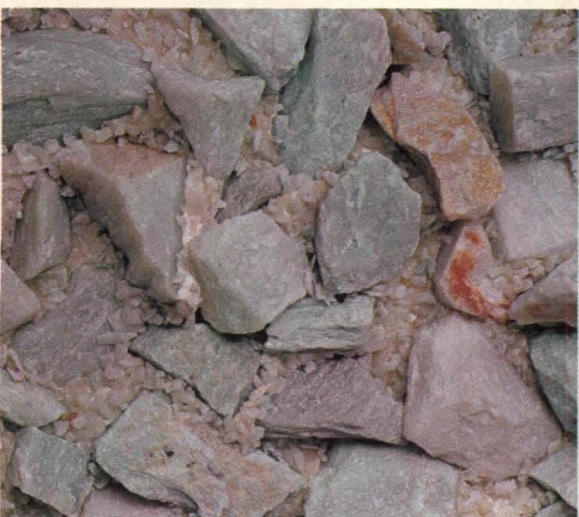
Owens-Corning is offering awards to stimulate new designs and ideas for conserving energy. See our advertisement in this magazine for details.

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And one of the reasons to design with stone is the price of Woodrock plus EPOXI/MATE.

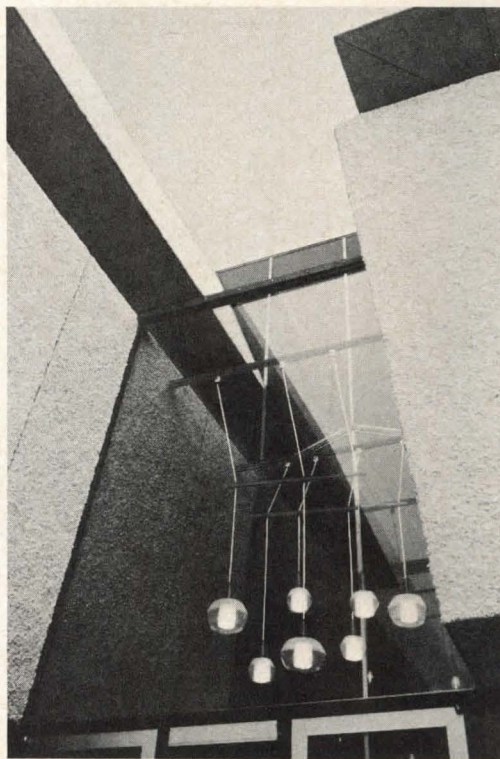
You start with Woodrock, National Gypsum's substrate panel, a natural base for any aggregate. Properly applied, Woodrock holds its size; won't check, crack or delaminate even under severe weather conditions.

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And your choice of stone can range from colored hard marble, to quartz chips to crushed granite. There's even a special EPOXI/MATE formulation available for aggregate as big as your fist. And another that's self-leveling for horizontal application in the shop.

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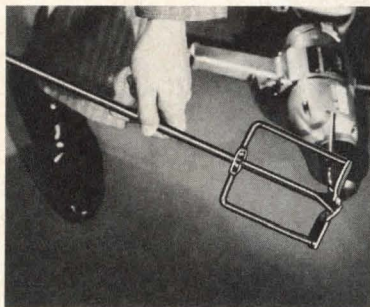
Your Gold Bond man can give you more constructive suggestions about EPOXI/MATE. Or write Gold Bond Building Products Division, National Gypsum Division, Dept. PA-53MF, Buffalo, New York 14225.



The WOODROCK-EPOXI/MATE System weighs only a fraction as much as pre-cast concrete. It goes on curved, angular or flat surfaces. Even soffit areas. Won't pit, peel or spall. Holds its color and stays virtually maintenance-free.



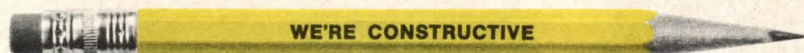
To prepare EPOXI-MATE for application, the hardener (catalyst) is poured into the resin container.



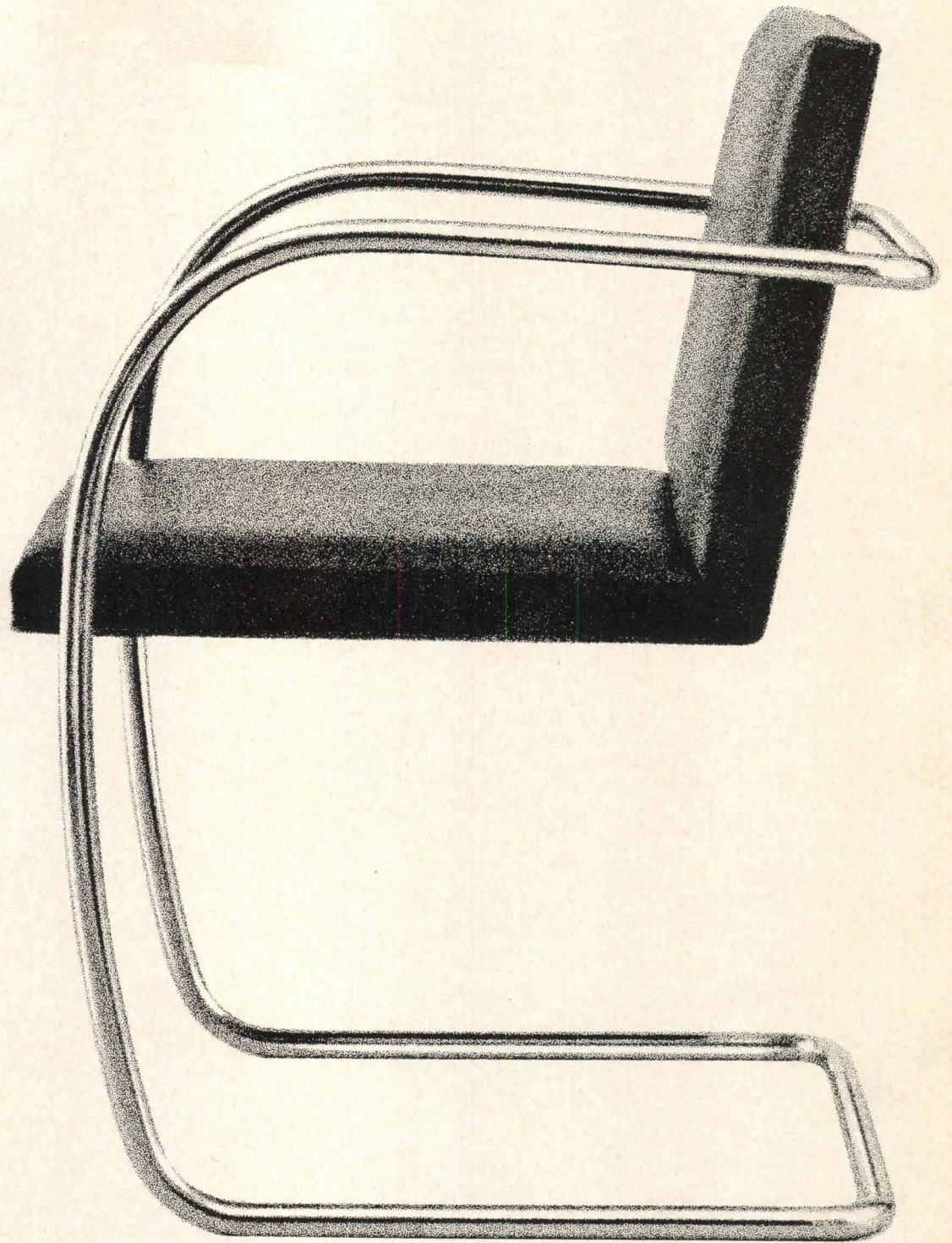
After resin and hardener are mixed, sand is blended into the mixture which is trowelled onto unprimed Woodrock substrate.



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the 'M' chair

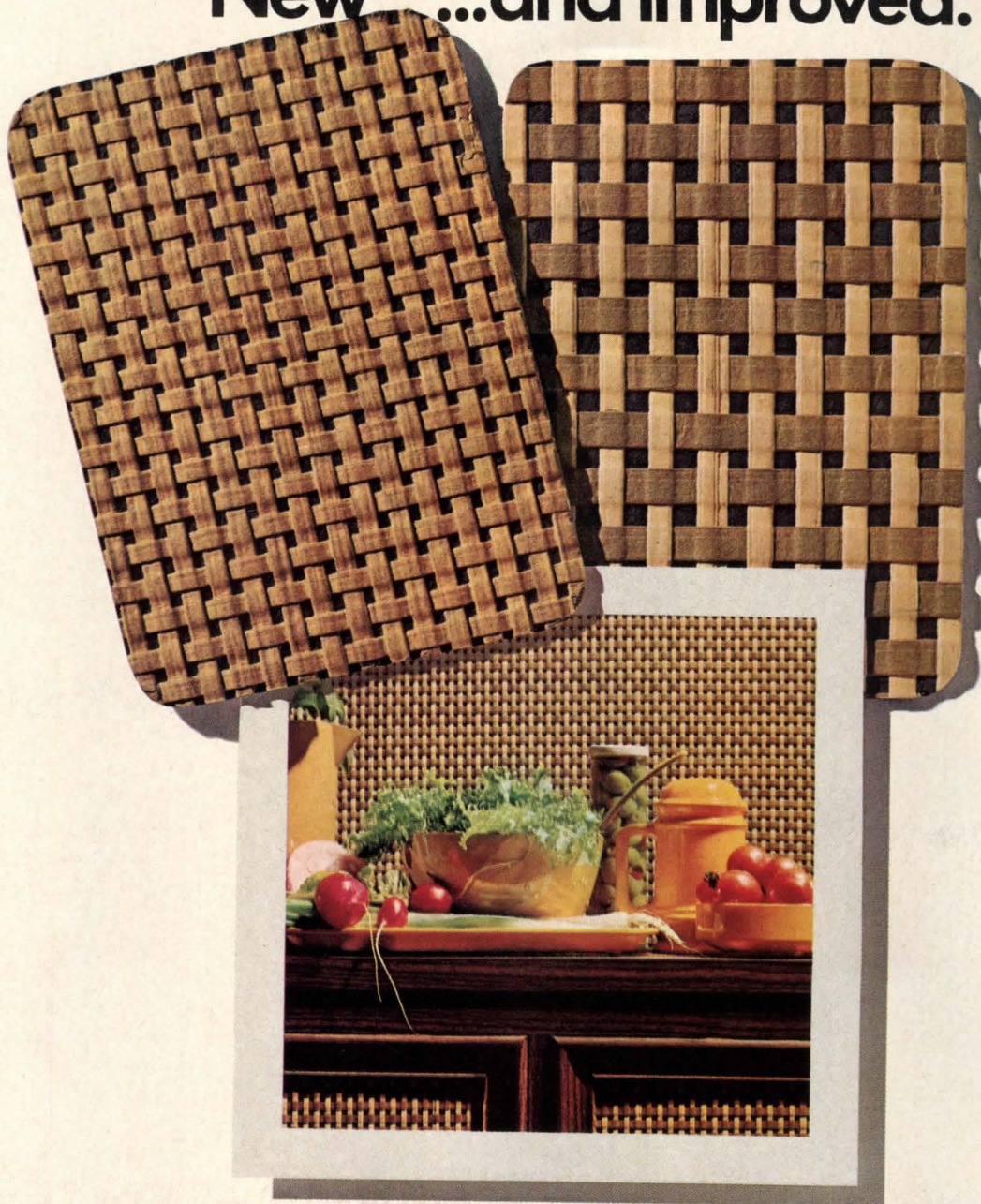


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The new is Mini-Weave. The improved is Natural Cane, Nevamar's original woven dimensional with finish and detail made even more realistic. What a bold, dramatic departure they are. With the look of cane, the color of cane . . . with deep weaves you can feel. Yet both meet or exceed *all* N.E.M.A. standards for high-pressure plastic laminates. Call on the toll-free Nevamar HOT LINE for samples: 800-638-4380. Or write: Nevamar Division, Exxon Chemical Company U.S.A., Odenton, Maryland 21113. Mini-Weave. Natural Cane. Two more of the uncommon dimensional collection that makes Nevamar the leader . . . the uncommon plastic laminate.



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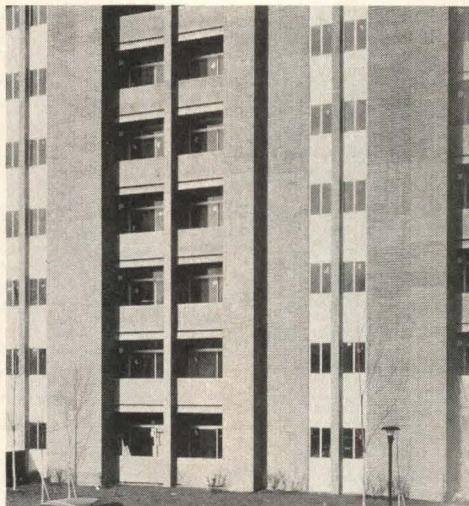
(not including foundation cost).



Minnesota

Clamor Manor/4-story apartment
Structural Cost: \$3.00 S.F.

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Books continued from page 134

Because the continuing development of new materials, techniques and methods of construction increases the number of possible solutions to any architectural problem, there is always something fresh to be learned about detailing. In this fifth volume of the successful series, four main sections are devoted to building details, consistency in detailing, details of outdoor installations and inside detailing. Numerous examples are given from countries as far apart as Japan, Australia, Britain and the United States.

Plastic Theory of Structures by Michael R. Horne. Cambridge: The MIT Press. 1972. 173 pp. \$12.95.

Plastic theory, which is used as the basis of design for the majority of single-story rigid frames, is being increasingly applied to multistory frames. An important feature of the theory is the extent to which intuitive ideas of structural behavior can be used to solve problems. In this text the author explains the principles of the intuitive approach and backs up his method by formal statements and proofs of theorems. Relevant problems are given at the end of each chapter, and answers are provided at the end of the book.

Architecture of Middle Georgia: The Oconee Area by John Linley. Athens: University of Georgia Press, 1974. 194 pp. \$17.50.

For those who like their architectural history specialized, there is John Linley's *Architecture of Middle Georgia: The Oconee Area*. It covers, in words and pictures (all of them well chosen) the surprisingly diverse architectural heritage of seven Georgia counties surrounding Milledgeville, the state's Civil War capital.

The historical and architectural documentation is there, as might be expected of an associate professor of architecture at the University of Georgia, and the book should be of interest to old building buffs anywhere, even though it deals with such a localized topic.

New Orleans Architecture: Vol. II, The American Sector by Mary Louise Christovich, Rhoulac Toledano, Betsy Swanson and Pat Holden. Gretna, La.: Pelican Publishing House, 1972. 243 pp. \$17.50.

New Orleans, a city that intrigues just about everybody, is being celebrated ar-

[continued on page 146]

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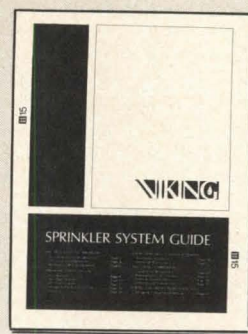
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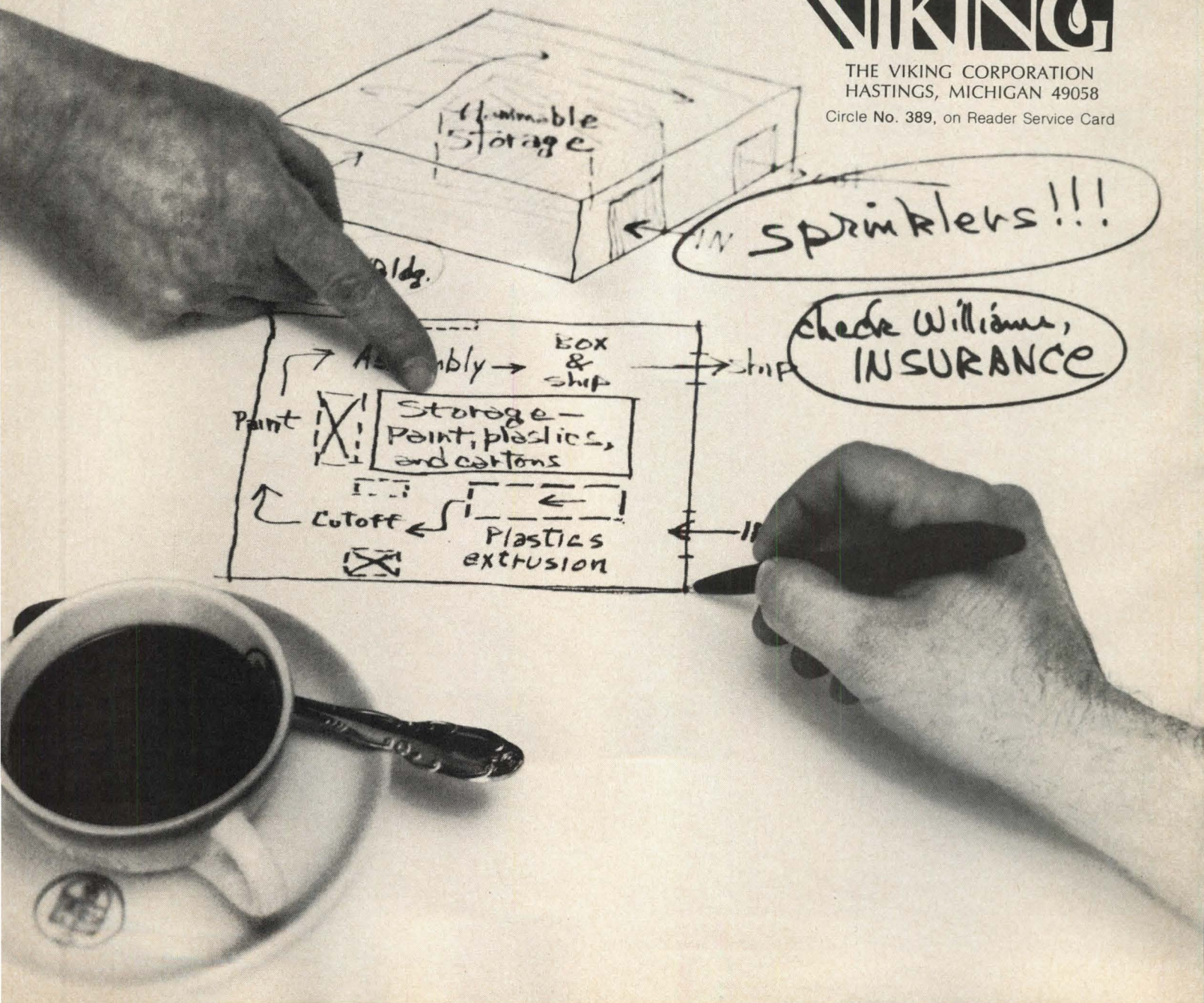
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chitecturally in a five-volume series of books. Volume I which came out two years ago, covered the Lower Garden District; Volume II focuses on the American Sector, which is now the city's central business district.

There is a good amount of history, there is a good map, and there is an extensive architectural inventory of the area. Material for the book was drawn from the New Orleans Notarial Archives, and the book is intended as a handbook for restoration and renovation.

The entire series, when complete, will likely be the most extensive architectural survey of any American city, and the Friends of the Cabildo, a New Orleans preservation organization, deserves extensive praise for compiling it.

Documents

[The documents listed below are available from the associations and agencies cited. Request for such documents should be directed accordingly.]

New Patterns: Transportation Options for Model City Residents. A technical assistance report prepared for the Minneapolis Model City program. Minneapolis Planning and Development Dept., 501 City Hall, Minneapolis, Minn. 55415. 126 pp. \$5.

This report offers comprehensive planning guidelines for model cities, with the major emphasis on developing immediate transportation improvements within and outside of the area in order to provide employment opportunities.

Transportation problems in the Minneapolis Model City area cover a wide range with the lack of an adequate public transit system probably the most important. New patterns suggested to improve the quality of life for model city residents include land use and economic, living, environmental and transportation factors.

Marble Design Manual. 178 pp. Marble Institute of America, 1984 Chain Bridge Road, McLean, Va. 22101. \$12.95.

A comprehensive reference guide to the architectural use of marble, this manual, incorporates material from three Marble Institute of America's books: "Marble Engineering Handbook," "Interior Specifications" and "Exterior Specifications." There are 18 product use sections which include details, guide specifications, CSI spec data sheets and a glossary of terms.

The Museum of Texas Tech University, Lubbock, Texas
Associated architects: Stiles, Roberts & Messersmith
McMurtry & Craig, Lubbock, Texas

DOORWAY NOTES...

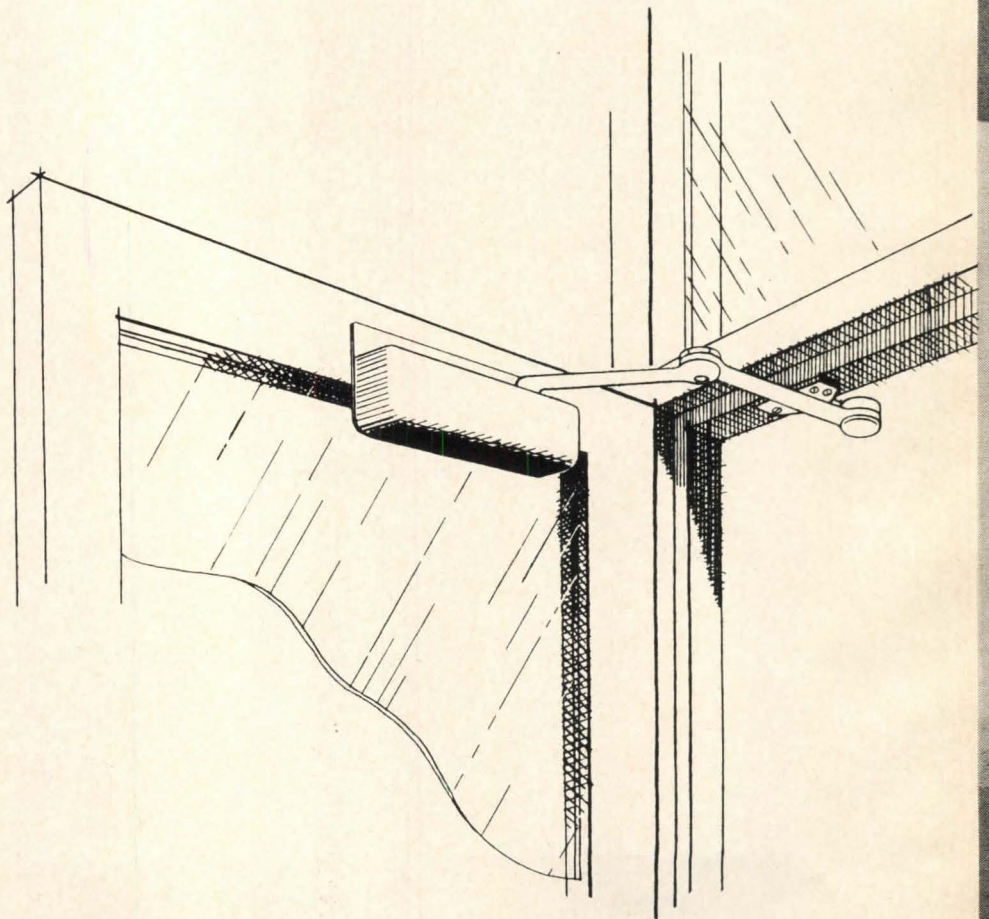
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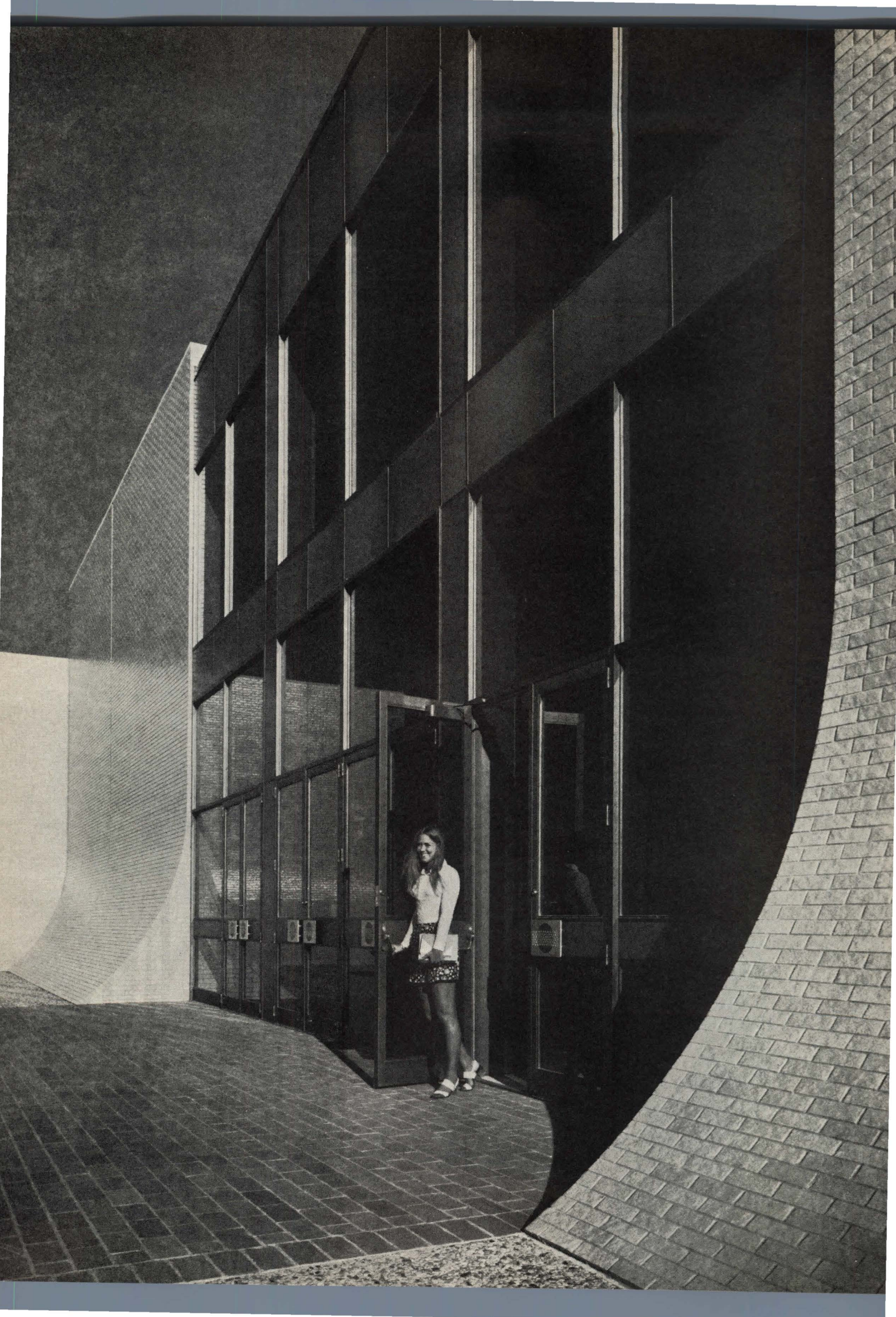
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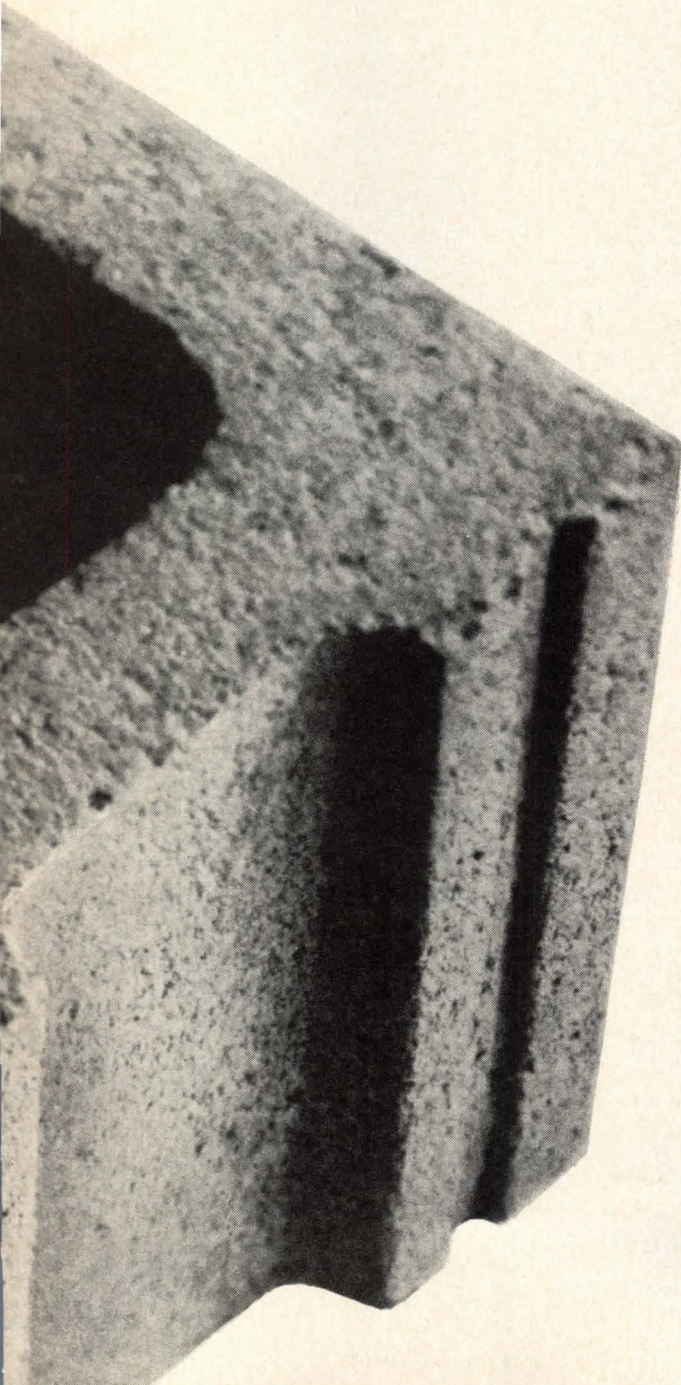
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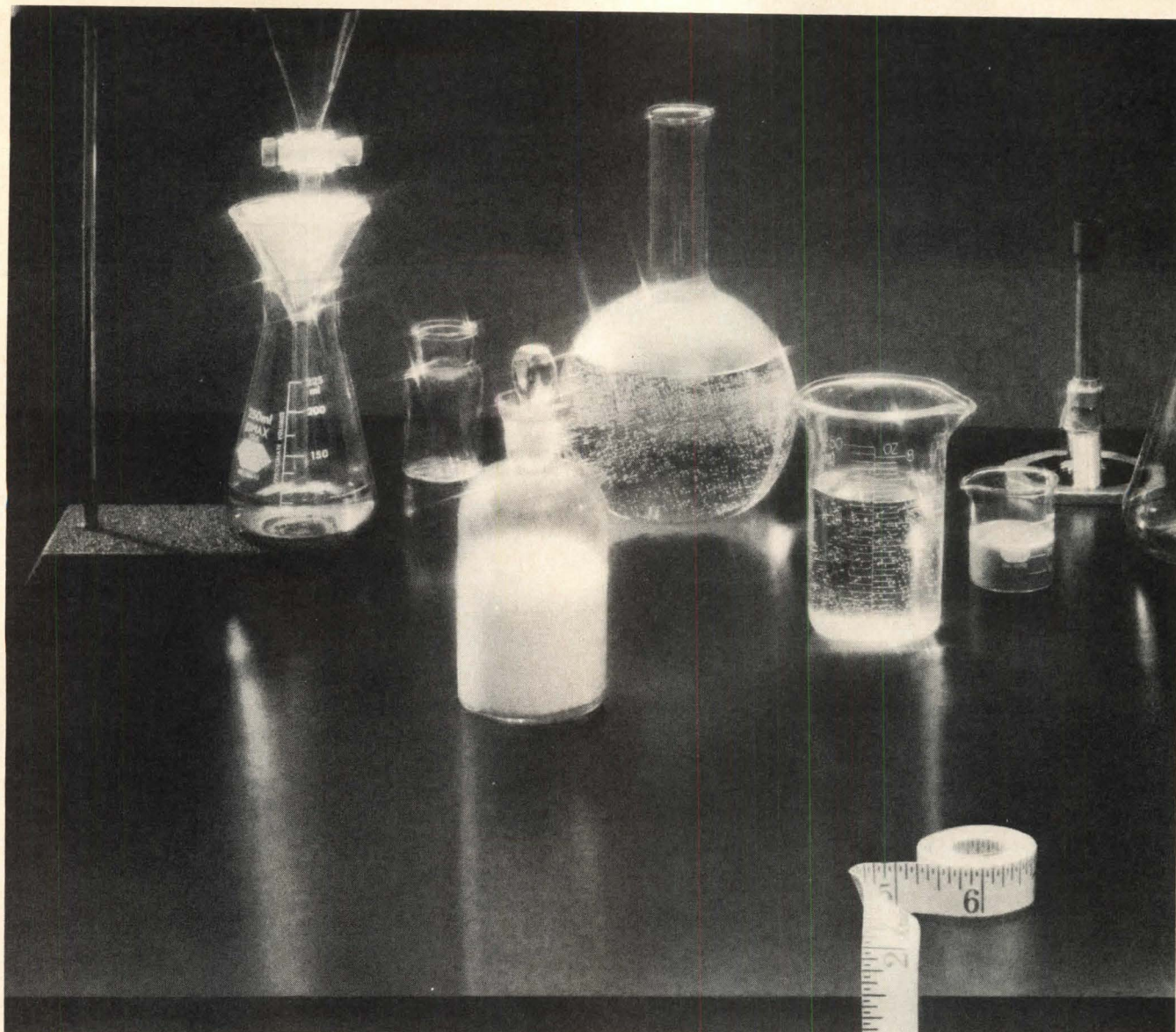
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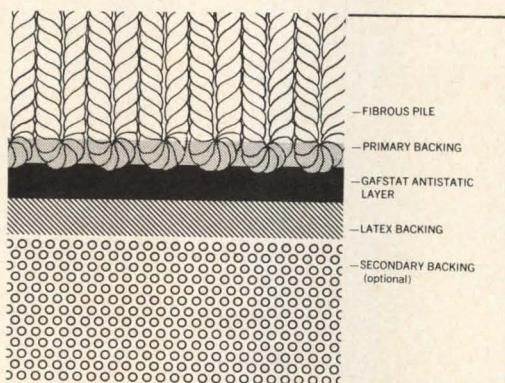
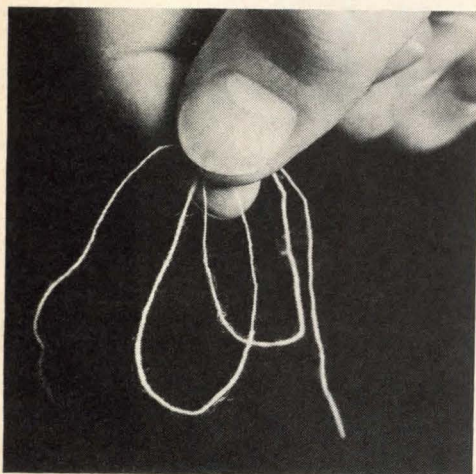
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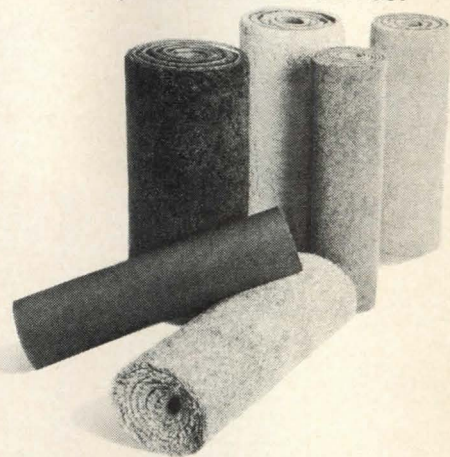
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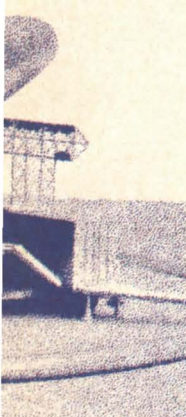
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GA-005

Progressive Architecture



coming in June: 20 years of Design Awards



For two decades, the **P/A Design Awards Program** has been showing where architecture is heading – before it gets there. Over the years, some of the winning designs have seemed far-out, yet a respectable 75 percent have been constructed in their award-winning form. And the wisdom of over 100 distinguished jurors has been confirmed as the far-out has become the accepted – in terms of design and in the sphere of architectural practice. In June, P/A will bring you a fascinating review of these years, of the awards program, and of its impact on American Architecture.

A **Time Line** by the editors will plot changes in winning entries and jury criteria against other developments since the Eisenhower era.

Wolf Von Eckardt, award-winning critic of the Washington Post, will provide a penetrating commentary on the program as both a reflection of changing standards and an active influence on them.

Other well-known contributors will initiate a new series of **Follow-Up studies** with current, in-use evaluations of several landmark P/A winners: SOM's Manufacturer's Trust bank, Ernest Kump's Foothill College, I.M. Pei's Society Hill Towers, Eliot Noyes' own house, Carl Koch's systems housing.

Several **recent P/A winners** will be shown in completed form, with thoughtful analyses of their place at the cutting edge of architecture. Winners on the way up and completed projects recently updated will be covered in **News Report**. Even the **Specifications** column will take up these 20 years of crucial change in architecture and building.

The whole issue will be a revealing record of where we have just been – with indications about where we are now heading. It will give you a lot to think about. You'll want to keep it a long time.

coming in July: Cost Data, Interior Design, and a P/A Profile

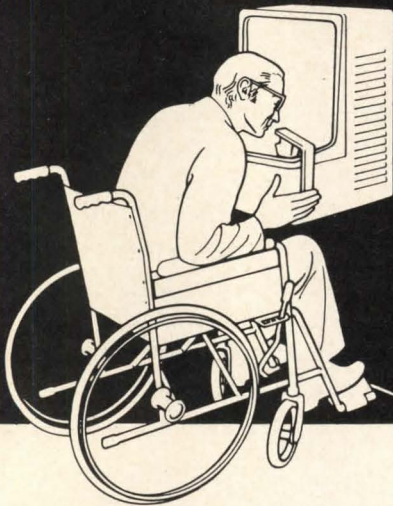
In this issue, P/A introduces a system for analyzing and maintaining **Building Cost Information**, in a form usable for architects in the crucial early stages of design. An introduction to methods of extracting and recycling cost information, by renowned quantity surveyors Hanscomb Roy Associates, will be followed by their first in a four-times-a-year series of analyses of individual buildings. This first example, an exceptional high school in Missouri by Hoffmann/Saur & Associates, Architects, will be covered in detail as a fine work of architecture and interior design, as well as a lesson in cost analysis.

Another innovative series beginning in this issue will analyze important **Interior Design** problems, by type. The first subject to be taken up will be furniture and furnishings for open office planning – with both analyses of existing systems and forecasting of hypothetical systems to meet imminent changes in business practices and equipment.

July's installment in our established series of **P/A Profiles** will look into the office of Arthur Cotton Moore, an architect noted for *initiating* imaginative planning-with-preservation projects in that most bureaucratic of cities, Washington, D.C. Along with insights into Moore's thoughts and methods, the article will show some of his encouraging schemes for such diverse situations as a block in Brooklyn's Bedford-Stuyvesant area and the old Post Office in Washington's Federal Triangle.

Notices

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WATER COOLERS

Appointments

Tiido Piirimae and Gerald I. Schiff have been named associates of Harrison & Abramovitz, New York City.

The following have been appointed associates in the firm of Dalton Dalton Little Newport, Cleveland, Ohio: Les M. Bolstad, John C. Cass, Joseph K. Ferenczy, Krishan K. Saigal, William R. Gauch, Vernon Kauffman, John E. Storm, Herbert C. Steffensen and James L. Swartz.

Lee Rogers Kirk has been named senior associate of Haines Lundberg & Waehler, New York City. Harry E. Christian has been appointed an associate.

Leonard S. Notkin, AIA and Allison P. Goodwin were appointed senior associates of The Architects Collaborative Inc., Cambridge, Mass. Robert deWolfe, Basil Hassan, Edward Malick, John Scott, Kenneth Taylor and Robert Wilson have been named associates.

Frederick R. Shenk-Lee V. Seibert—Architects is now Shenk Seibert Smithgall Architects, Wyomissing, Pa., with the appointment of James J. Smithgall, AIA as partner.

Murray Sput, AIA has been named a partner of Nikita Zukov & Partners, Architects, New York City.

Norman S. Baier, AIA has been appointed a partner in Galliher & Schoenhardt, Simsbury, Conn.

E. Stuart Baxter, AIA has been named an associate of Carlin, Pozzi & Associates, Architects, New Haven, Conn.

Merrill M. Bush, PE has been elected to the board of directors of Smith, Hinchman & Grylls Associates Inc., Detroit.

Richard B. Lenchus has been appointed vice president of Environmental Research & Development Inc., New York City and Beverly Hills, Calif.

[continued on page 158]

LIGHTWEIGHT SOLUTIONS TO WEIGHTY PROBLEMS

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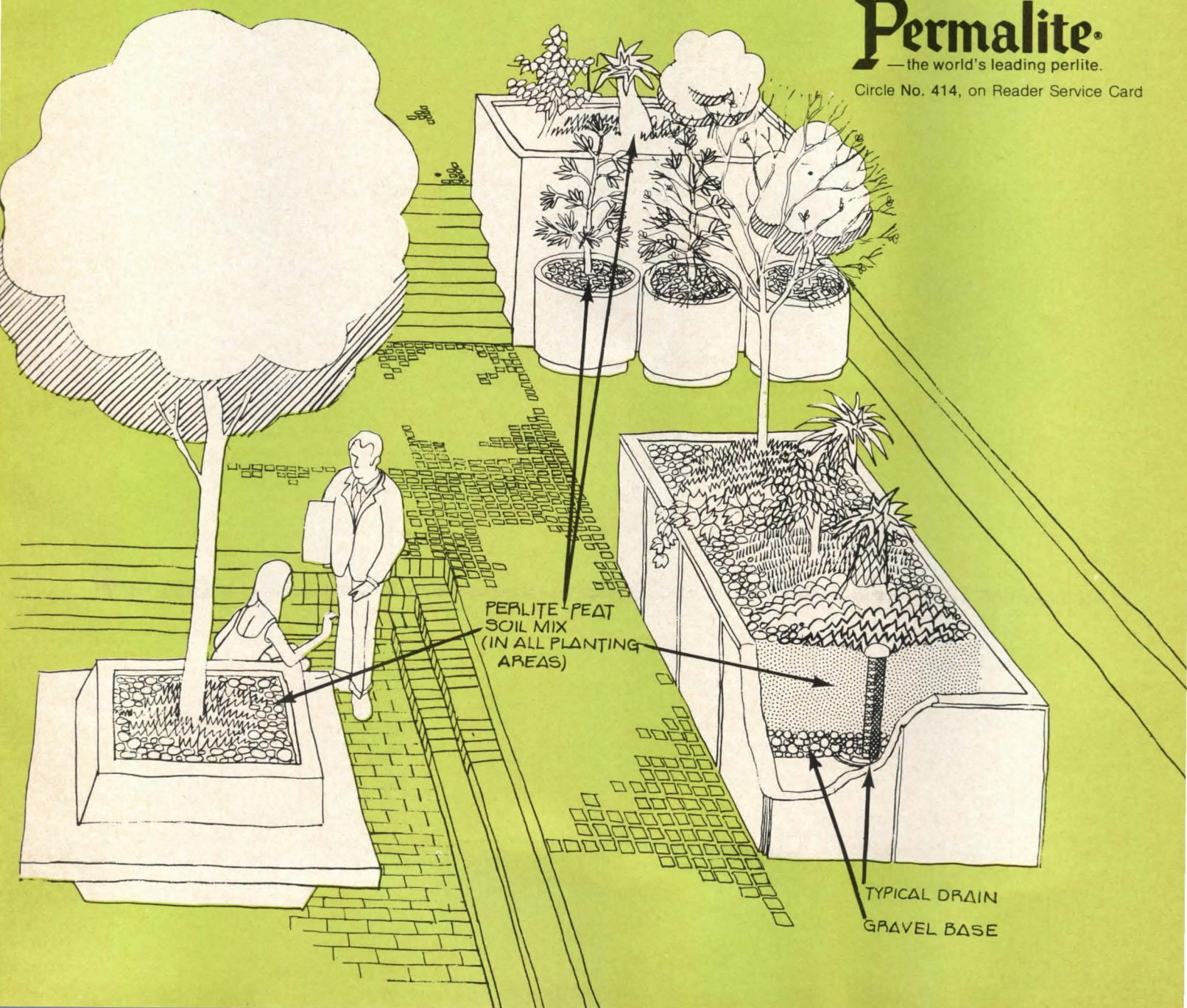
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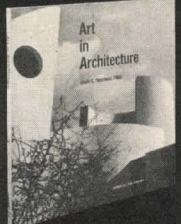
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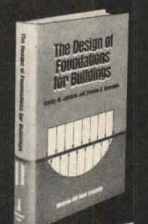
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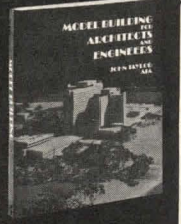
190/534
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678/502
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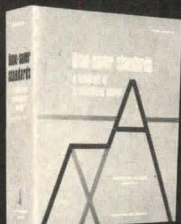
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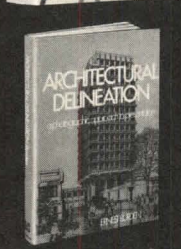
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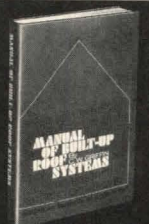
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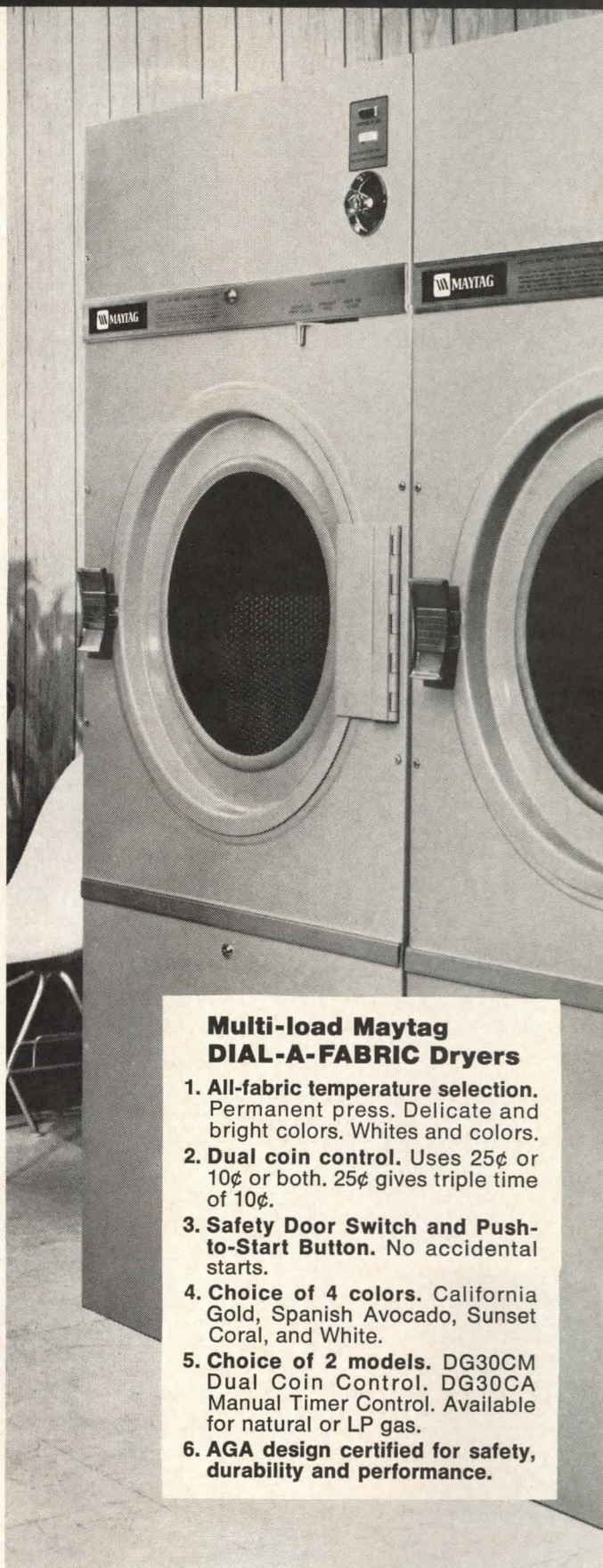
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Notices continued from page 154

James T. Lile and Irving J. Maitin have been appointed partners of Ewing Cole Erdman & Eubank, Philadelphia. Stuart R. Guba and Joseph G. Klempay have been named associates of the firm.

Richard J. Dimit, AIA has been named president and chief executive officer of Adrian Wilson Associates, Los Angeles. He succeeds Adrian Wilson, FAIA who is retiring as president and chairman of the board.

Joanne Horgan has been named an associate of Johnson Hotvedt & Associates, Inc., Boston, Mass.

Otho E. Craft, Jr., has been appointed an associate of Wiley & Wilson, Inc., Lynchburg, Richmond and Virginia Beach, Va.

John L. Graham, III and George K. Miles have been named partners of George, Miles & Buhr, Salisbury, Md.

Robert M. Suckling has been admitted as a partner in the firm of Campbell, Rea, Hayes & Large, Altoona and Johnstown, Pa.

Kilroe P. Ferretti, Eugene Chorny, PE, and Eliezer Dubinsky, PE, have been named associates of Farkas, Barron & Partners, New York City.

Ralph Leon, PE, has been appointed electrical department head of the industrial division of Diaz, Seckinger & Associates, Inc., Tampa, Fla.

Anne Overlin, NSID, has been named senior associate and director for interior design of McLeod Ferrara Ensign, chartered architects, Washington, D.C. E. Kenneth Jaquith, Jr., Nelson Spoto and Joseph Tardy have been appointed senior associates, and Brian W. Henning, John E. Moyer and A. John Shimek have been named associates of the firm.

Burt J. Saymon has joined Bertram S. Warshaw & Associates, Miami, Fla., as vice president in charge of mechanical, electrical and sanitary engineering.

Thor H. Andersen, Alexander Busch, Fred L. Elsasser and Murray Feldman have been appointed associates of Weiskopf & Pickworth, consulting engineers, New York City, San Francisco and White Plains, N.Y.

Donald C. Brockman, PE, has been named assistant manager of the industrial department and James H. Jones has been named project manager for Ellis/Naeyaert Associates, Inc., Detroit.

Edward C. Jackson has been named vice president and Beusse Whitworth, Jr., has been appointed project director of Stevens & Wilkinson, Architects Engineers Planners, Inc., Atlanta, Ga.

[continued on page 160]

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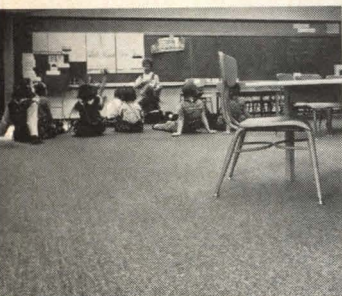
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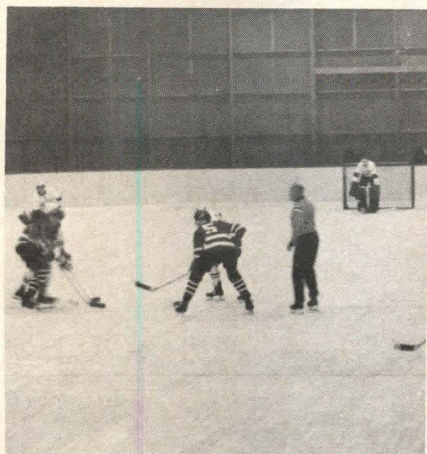
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Notices continued from page 158

Expansions, reorganizations and mergers

Perplana Associates, a subsidiary of William L. Pereira Associates specializing in planning services, has been formed in Los Angeles with Michael M. Mitchell as president.

Marvin Hatami & Associates, and Arthur B. Wise III, Denver, Colo., have formed a partnership and will continue to practice under the name Marvin Hatami & Associates.

S.C. Smiley & Associates and Liebenberg, Kaplan, Glotter & Associates have merged under the name Liebenberg, Smiley, Glotter & Associates, Inc., Minneapolis and St. Paul, Minn.

New addresses

Joseph Intingaro Associates, 98 Tremont St., Melrose, Mass. 02176.

Zion & Breen Associates, Inc., Implants-town, N.J. 08526.

Bruce & Hansen, AIA, 3380 14 St., Standard Insurance Bldg., Riverside, Calif.

Hutchins Evans & Lefferts, 155 E. 44 St., New York City 10017.

Smart & Whitehead Architects AIA, 2630 Richmond, Houston, Tex. 77006.

Maxwell Starkman AIA & Associates, 9420 Wilshire Blvd., Beverly Hills, Calif. 90212.

Peter J.M. Trozze, AIA, 1117 Front St., Binghamton, N.Y. 13905.

Welton Becket & Associates, 2150 Parklake Drive, N.E., Atlanta, Ga. 30345.

Foster-O'Neill Architecture and Planning, Saddleback Plaza, 17581 Irvine Ave., Tustin, Calif.

New firms

Joseph Geraci Associates, land planners, landscape architects and site designers, Glen Hill Office Park, Bldg. 4, Suite 305 B, 799 Roosevelt Rd., Glen Ellyn, Ill. 60137.

Ergo Designs, Inc., interiors and space planners, 420 Lexington Ave., New York City 10017.

Barry A. Goldberg, structural engineer, 3925 W. Fargo Ave., Skokie, Ill. 60076.

Leonard Hirsch Construction Consultants, 5338 Fountain Ave., Los Angeles, Calif. 90028.

George Mattson, 109 E. Main, Bozeman, Mont. 59715.

Tedd F. Chilless and Donald E. Nielsen have formed Chilless Nielsen Architects and Planners AIA, 800 N.W. 6 Ave., Portland, Ore. 97209.

A. Monroe Stinchomb Associates, The Architectural Space Laboratory, 24 W. 31 St., New York City 10001.

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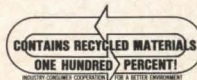
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Architect: Large national development corporation headquartered in Dallas is looking for a design oriented architect to be in charge of small architectural staff. NCARB required. Salary open to discussion. Excellent opportunity for right person. Staff advised about this ad. Centex Homes Corporation, a subsidiary of Centex Corporation. Reply to Box #1361-491, *Progressive Architecture*.

Architect: State of Alaska. \$1,579-\$1,699 (depending on qualifications). Bachelor's with major course work in architecture or architectural engineering and 5 years experience as a professional architect. Professional registration required. Send resumé to: Paul Oles, Personnel Division, Pouch C, Juneau, Alaska 99801.

Architects for Peace Corps/Vista-Action: Volunteer overseas and U. S. Low-income housing projects, design of schools, hospitals, community centers, etc. Most openings — singles; some couples. Information: Bruce Mazzie, Action, OCP Box 10, Washington, D. C. 20525.

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Architects (R.A.) and architectural lead draftsmen: If you have been involved in architectural planning of educational, institutional and industrial facilities for more than 5 years and feel that you have not received the recognition you deserve, then you will want to investigate this ad today. Comprehensive hospitalization, life and disability insurance, vacation, sick leave and profit sharing plan all company paid. Credit Union privileges. Send resume or contact: Personnel Director, Buchar Associates, 611 West Market Street, York, Penna. 17405. Phone: 717-843-3854. An equal opportunity employer.

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Architectural illustrator: Top position for experienced architectural illustrator, in expanded organization. Firm located in northwest suburban Chicago area. Send resumes. Reply to Box #1361-515, *Progressive Architecture*.

Architectural illustrators: Nationally known architectural presentation consulting firm offering opportunity for qualified personnel. Relocate in warm climate with top pay plus benefits. Salaries open for qualified artists with extensive professional experience in any of the following categories; background, structural, finishing, cars & figures. Send resumes with samples to: Prelim, Inc., 3618 Noble Ave., Dallas, Texas 75204. All samples will be returned promptly.

Assistant professor: Montana State University, an equal opportunity employer, has a position in the area of design, beginning September 1973 at the level of assistant professor. Applicants should be interested in architecture as fine art. Expertise should be in areas of innovative as well as traditional methods of communication, product design as well as plastics and fiberglass uses. Applicants should possess Masters degree, some teaching and professional experience and preferably, professional registration. Contact Ilmar Reinvald, Director, School of Architecture, Montana State University, Bozeman, Montana 59715.

Design architect with management ability: Challenging opportunities exist at large western New York firm for top professional with strong management and design emphasis. Professional license required. Partnership status is open for the right man. Expanding architectural-engineering firm is active in the design of significant educational, medical,

and industrial facilities throughout north-eastern U.S.A. Send confidential resume including salary requirements. Reply to Box #1361-516, *Progressive Architecture*.

Draftsmen/intermediate and senior: Progressive growing architectural firm involved in Type I, III, and V projects seeking persons with production ability. Top wages, company benefits. Located in Orange County, 15 minutes from ocean, 50 miles south of Los Angeles. Swank Gesler-Partners, 105 Town & Country, Orange, California 92668.

Experienced designer: Growing Florida architectural corporation has senior design position available. Experience, registration and Master's Degree preferred. Career potential. Profit sharing. Send complete confidential resume to: Stewart-Richmond Architects, Inc., 308 East Madison Street, Tampa, Florida 33602.

Experienced production architects: Growing Florida architectural corporation has positions available for registered architects. Experience, degree and registration preferred. Career potential. Profit sharing. Send complete confidential resume to: Stewart-Richmond Architects, Inc., 308 East Madison Street, Tampa, Florida 33602.

Interior designer: Progressive architectural firm with a general practice in the Chicago area is seeking interior designer to expand activities of interior design department. Excellent opportunities for advancement. Minimum five years experience in an architectural office or interior design firm. Experience in banking or church work desirable. Send resume or contact: C. Edward Ware Associates, Architects, 415 Y Blvd., Rockford, Illinois 61107. Phone: 815-963-8407.

Land planner: Large national development corporation headquartered in Dallas is looking for a design oriented, qualified land planner to start up and to be in charge of our in-house land planning staff. Excellent opportunity for the right person. Staff advised about this ad. Centex Homes Corporation, a subsidiary of Centex Corporation. Please send resumé and samples of your work. Reply to Box #1361-500, *Progressive Architecture*.

Project architect: Large western New York firm has challenging opportunities for talented professionals as project architects and project designers. License and/or degree helpful, but not mandatory. This rapidly expanding architectural/engineering firm is active in the design of significant educational, medical, and industrial facilities throughout New York, Pennsylvania, Vermont, New Hampshire, and Connecticut. Send confidential resume, including salary requirements to: Mr. David E. Eberl, AIA, The [continued on page 164]

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Situations wanted

Architect: American, 31, multilingual with wide, all-round experience as project manager on major European project, seeks to contact U.S. firm with practice in Europe or interest in establishing such. Reply to Box #1361-518, *Progressive Architecture*.

Architect: 39, A.I.A., NCRB. 13 years experience in design and planning of wide range of major projects with emphasis on hospitals, related facilities. Experienced with clients. Seeks opportunity with aggressive group dedicated to good architecture and willing to share in accomplishments and profits.

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Architect: Living in Mexico City. Good command of English. Educated in Mexico, U.S. and Europe. Age 28. 6 years versatile experience in design and planning; good sketching ability, water color, ink, and air brush renderings. Seeking responsible position with American firm. Able to work in U.S. M. Gonzalez, Arquimedes 107, Mexico 5, D.F., Mexico.

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[continued on page 166]

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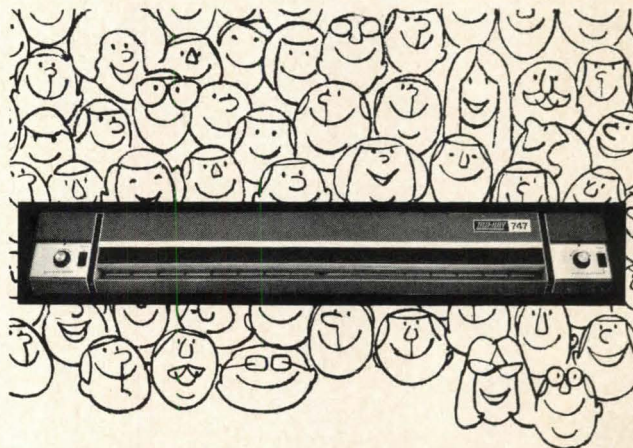
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Architect: Registered, NCARB, age 39, family, seeking challenging responsible design and/or production management position with equity potential. Fourteen years experience in all phases of practice including client contact, specifications, and construction administration as project architect for institutional, educational, commercial, industrial projects. Midwest location preferred. Resume available. Reply to Box #1361-521, *Progressive Architecture*.

Architect/designer: NCARB, AIA, 42, family, Illinois graduate, principal of firm. Sixteen years diversified, comprehensive experience. Organizational ability. Desire position (with partnership potential) directing design and

production in ethical, progressive, medium to small firm interested in producing best contemporary architecture. Prefer Rocky Mountain area—will consider others. Reply to Box #1361-522, *Progressive Architecture*.

Architecture grad: Will graduate with Bachelor of architecture, June '73. Seeking employment in metropolitan New York/Long Island area. Married, one child. Resume upon request; reply to: Jeffrey Kanner, 2511 Newkirk Avenue, Brooklyn, N. Y., 11226.

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Registered architect: 48, B.S. Arch. Degree, A.I.A., 23 years continuous experience, 14 years private practice—all phases, desires position of director of design/ planning/ development with state, county, city, university or firm located in southwest U.S.A., personal resume and projects upon request. Reply to Box #1361-523, *Progressive Architecture*.

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