

FORUM

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THE ARCHITECTURAL FORUM

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PUBLISHER'S NOTE

As recently as last month we remarked on a growing enlightenment among those experts who decide which magazines carry what advertising. However reassuring that trend may be, we still haven't forgotten how to worry.

Just the other day we received a subscription order from two doctors in San Francisco that turned a few more hairs gray while we wondered what would happen to us when certain media selectors cranked this revealing data into their computers. The doctors explained that they were subscribing to THE FORUM because, "There are ten to 15 architects, engineers, and executives from Bechtel Corp. and BART [who] come to the office every week."

What does that say about THE FORUM? Will the computer conclude that X out of Y doctors prescribe THE FORUM for the ills that beset architects? Or, is the fact of ten to 15 office visits a week sufficient statistical evidence for the machine to conclude that the architect-engineer professions are sick, making THE FORUM an excellent advertising buy for the pill boys? We view with alarm, too, the possibility that THE FORUM will emerge from the whirring circuits as a threat to National Geographic's No. 1 position in the waiting room.

Of course the good doctors' welcome order suggests another evaluation which we make without benefit of computer-age hardware. Our readers, mostly architects, find THE FORUM so provocative, they talk about it to lots of people besides designers, such as doctors. And lots of people, in turn, become concerned with the things designers ought to be doing, or are not permitted to do about the physical world we live in. We know that has been happening with San Franciscans and their BART system (June '66 issue).

Now, if someone would assure us that media machines reason that way too, we can stop worrying and concentrate on giving the doctors more handsome magazines for their office table and their ailing design patients. L.W.M.



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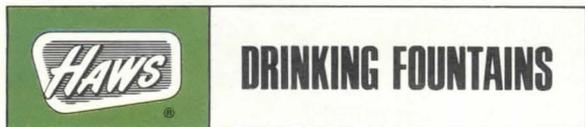
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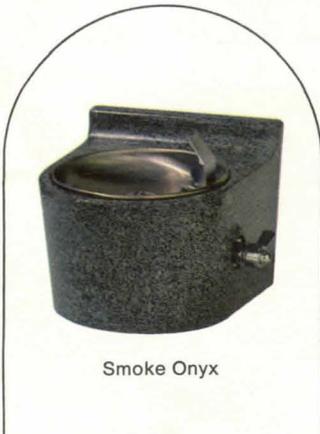
Model 90-C at right, 50-C below, available in all five colors. Ask about Haws remote chillers for hidden cold-water source.



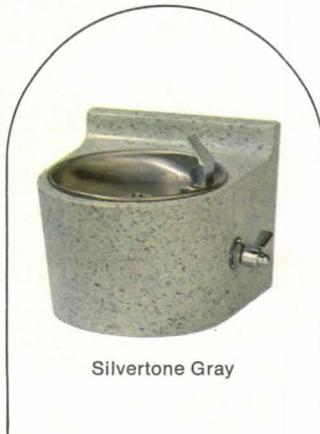
Laurel Green



drinking fountains and faucets, emergency decontamination units and water coolers



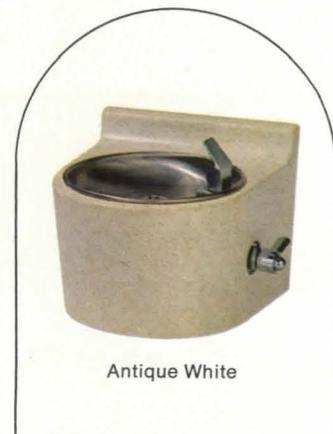
Smoke Onyx



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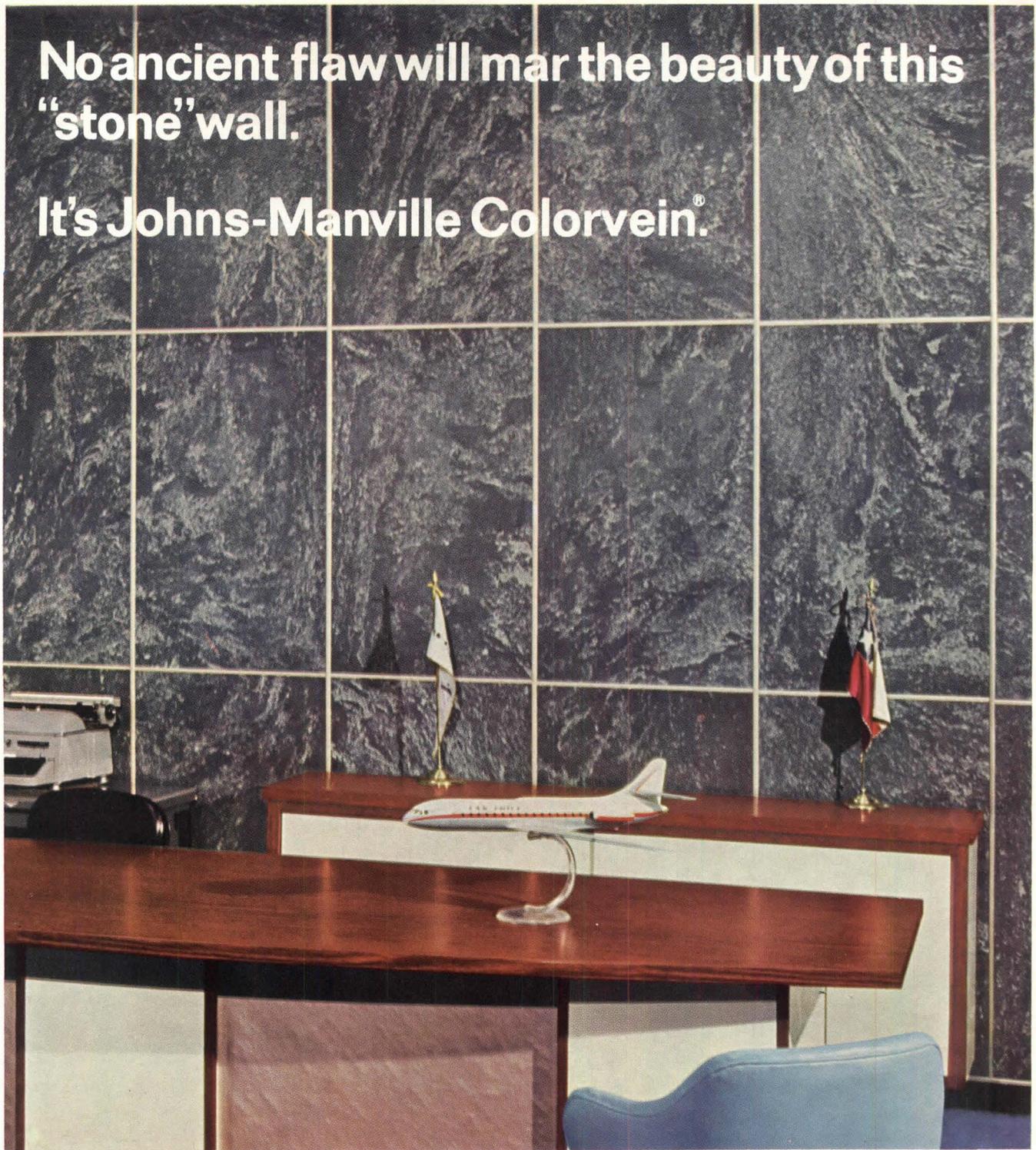
Terra Cotta Beige



Antique White

No ancient flaw will mar the beauty of this
"stone" wall.

It's Johns-Manville Colorvein.[®]



Chilean National Airlines (LAN) Miami ticket office. R. A. Donnelly, Interior Designs.

Colorvein has the same distinctive appearance as natural stone . . . the same massive look and lustrous, smooth-polished surface.

But Johns-Manville adds one quality that's missing in quarried stone—controlled *uniformity*. In the Colorvein manufacturing process, finely dispersed asbestos fibers, chemically resistant pigments and cement are combined by water, pressure and heat into an architectural material of monolithic strength and beauty. Its swirling chiaroscuro patterns have a unique character. The patterns are available in dark swirls within a light background or light swirls within a dark back-

ground. The color combinations are black and white, green and black, brown and white.

Strength and density are consistent, too. There are no weak striations or cleavage planes. And Colorvein is easier to work with than stone. It cuts and machines easily—it can be erected by masonry methods or (an advantage over most stone materials) it can be erected by carpentry methods because of its strong screw-holding ability.

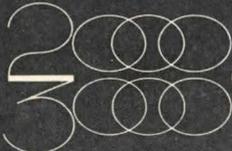
Versatile J-M Colorvein is available in panels 4' wide, 8' long and thicknesses to 1¼". Use Colorvein for exterior walls and spandrels; for interior walls, parti-

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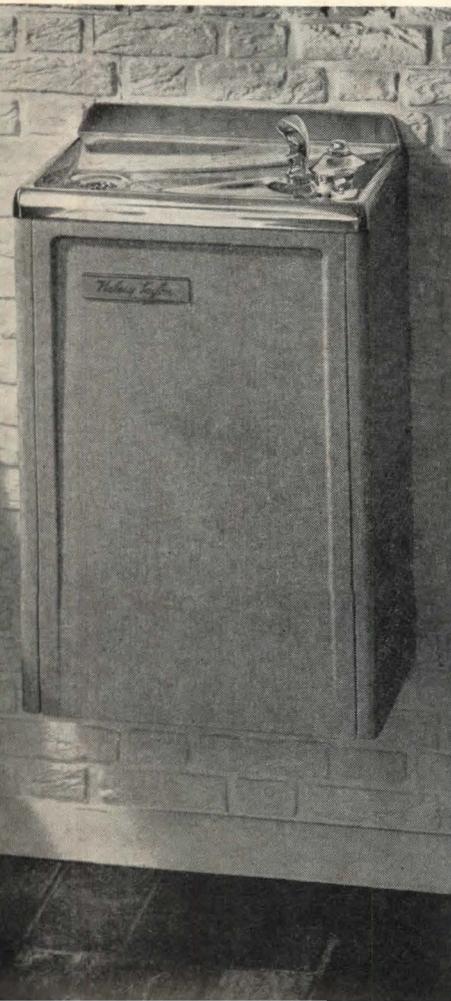


We can think of six good reasons why you'd want to specify a Halsey Taylor water cooler.

WM SERIES WALL-MOUNTED WATER COOLERS — Designed for modern interiors. Contoured stainless steel top prevents splashing. Hot water dispenser (coffee bar) optional. Standard cabinet finish is handsome, baked gray enamel. Available also in stainless or vinyl-clad steel with choice of attractive colors and textures. Choose from 3 models. Capacities: 9.4, 16.4 or 19.9 gals. of 50° F water at 70° room temperature. Water-cooled condenser models also available.

RWM SERIES SEMI-RECESSED WATER COOLERS — Provide contemporary complement for public areas. Steel box frame allows flush mounting in any wall. Standard cabinet attractively finished in gray baked enamel. Special interior accent cabinets also furnished in stainless or vinyl-clad steel with choice of textures and colors. Two models. Capacities: 9.4 to 15.2 gals. of 50° F water at 70° room temperature.

CP CLASSIC SERIES — Complete refreshment center provides cold drinking water and hot water for coffee and other hot beverages. Large refrigerated compartment for ice cubes and bottled drinks. Modern styling combines stainless steel with wood-grain finish. Ideal for executive suite, conference room, or employees' lounge. Coffee bar, optional equipment. Capacity: 3.5 gals. 50° F water at 70° room temperature.

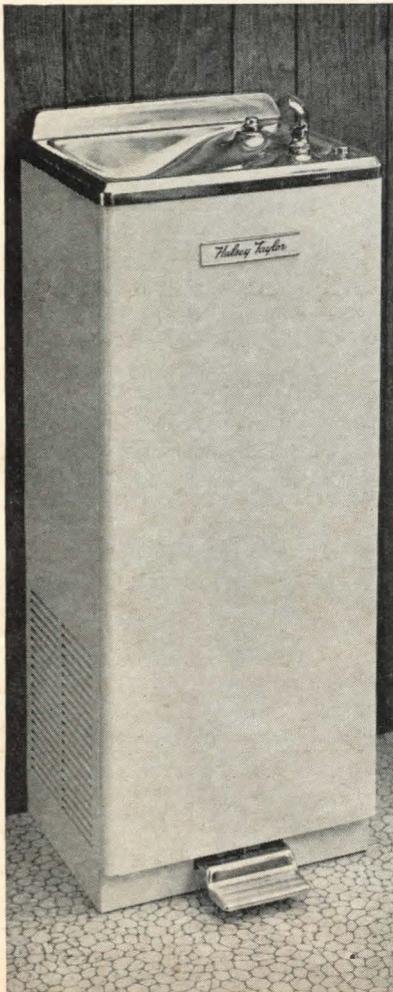


A two-stream bubbler is one.



WT FLOOR MODEL SERIES — Can be installed free-standing or secured tightly against the wall. All plumbing connections are made through cabinet back. Equipped with both hand and foot controls and new anti-splash stainless steel top. Goose neck glass filler and water dispenser (coffee bar) are optional. Cabinet finished in standard gray enamel. Other attractive colors on special order basis. Choose from 4 models. Capacities: 9.4 to 24.6 gals. of 50° F water at 70° room temperature. Water-cooled condenser models also available.

BL-301 BI-LEVEL ACCESSORY FOUNTAIN — Safe, practical way to serve drinking water to adults and children. Designed for side mounting on any WM series water cooler. Gray baked enamel, stainless or vinyl-clad steel cabinets to match adjoining WM cooler. Waste outlet and water supply are integral with electric water cooler. Can also be installed as separate wall fountain.



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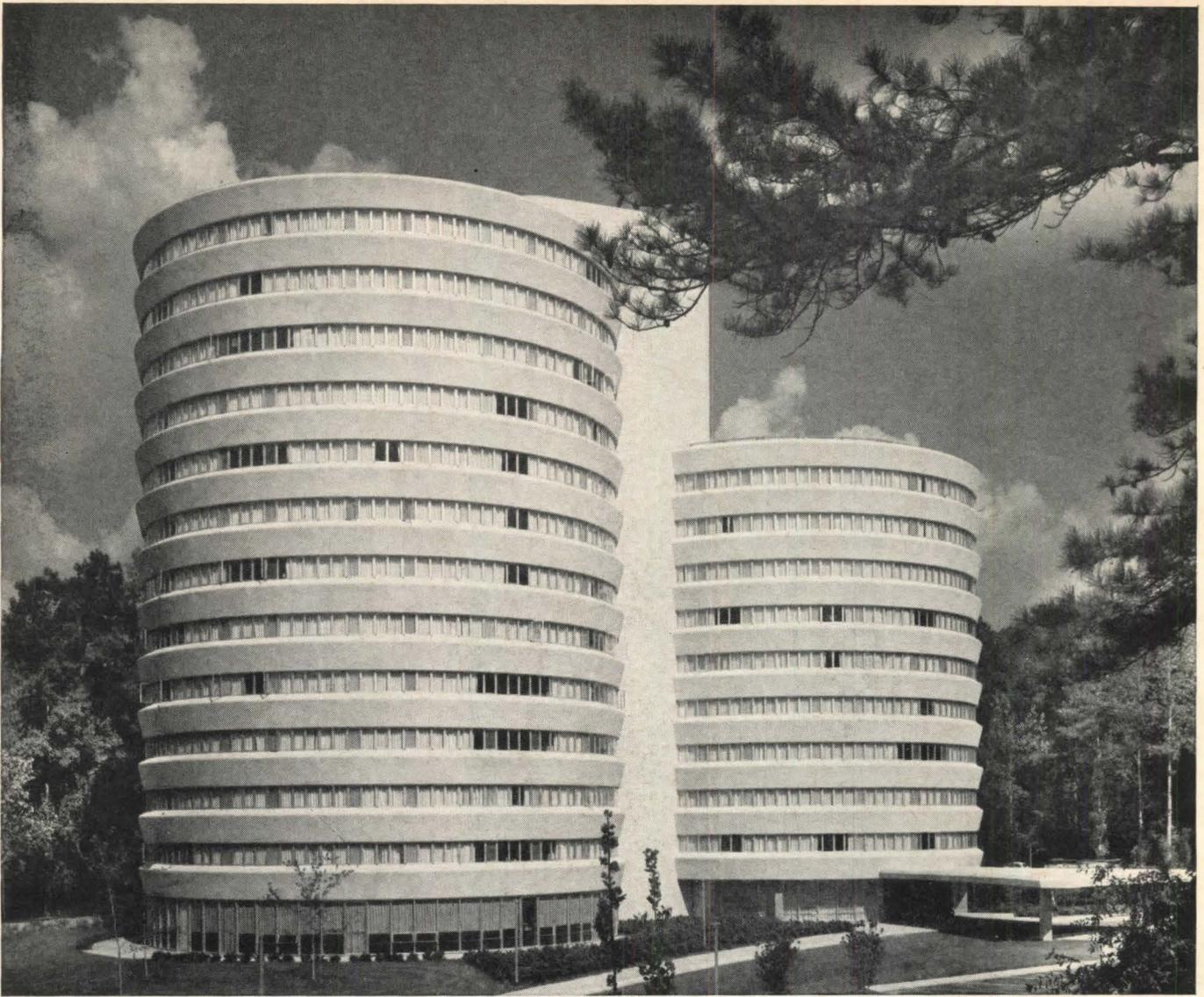
The five attractive water coolers shown here, with their clean, modern styling, are additional reasons why you should specify Halsey Taylor.

Before you buy or specify see the most complete line of electric water coolers and drinking fountain equipment available. Write today for new Halsey Taylor catalogs. Or look us up in Sweets or the Yellow Pages.

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The Wesley Woods Towers, Atlanta, Ga. Architect: Charles E. Stade & Associates, Park Ridge, Ill. Panel Manufacturer: Mable-Bell Schokk beton Corp., Peachtree City, Ga. General Contractor: Daniel Construction Company of Georgia, Atlanta, Ga.

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The 720 exterior panels at Wesley Woods have an exposed quartz and quartzite aggregate that give color and texture. The panels were cast ahead of schedule and were available when the frame was ready for them. Most panels take a compound curved shape—curved horizontally to the curve of the round towers, and curved vertically through the spandrel area. The curved panels are

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□ Howard Johnson Motor Lodge, Joliet, Illinois. Architects: Boettcher & Simmon, Rockford, Illinois

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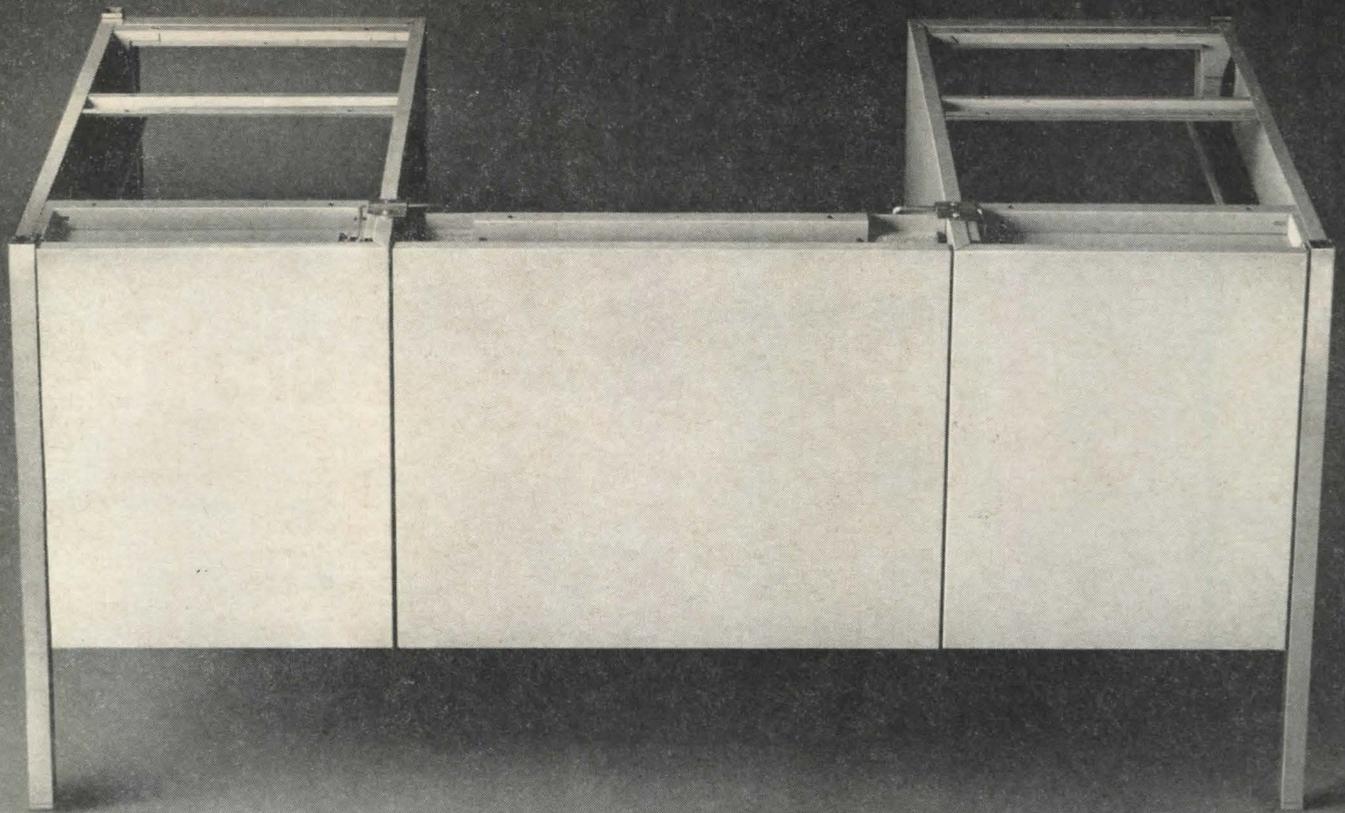
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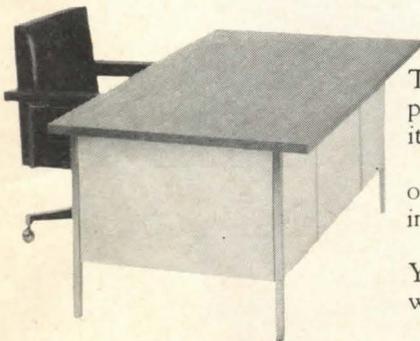
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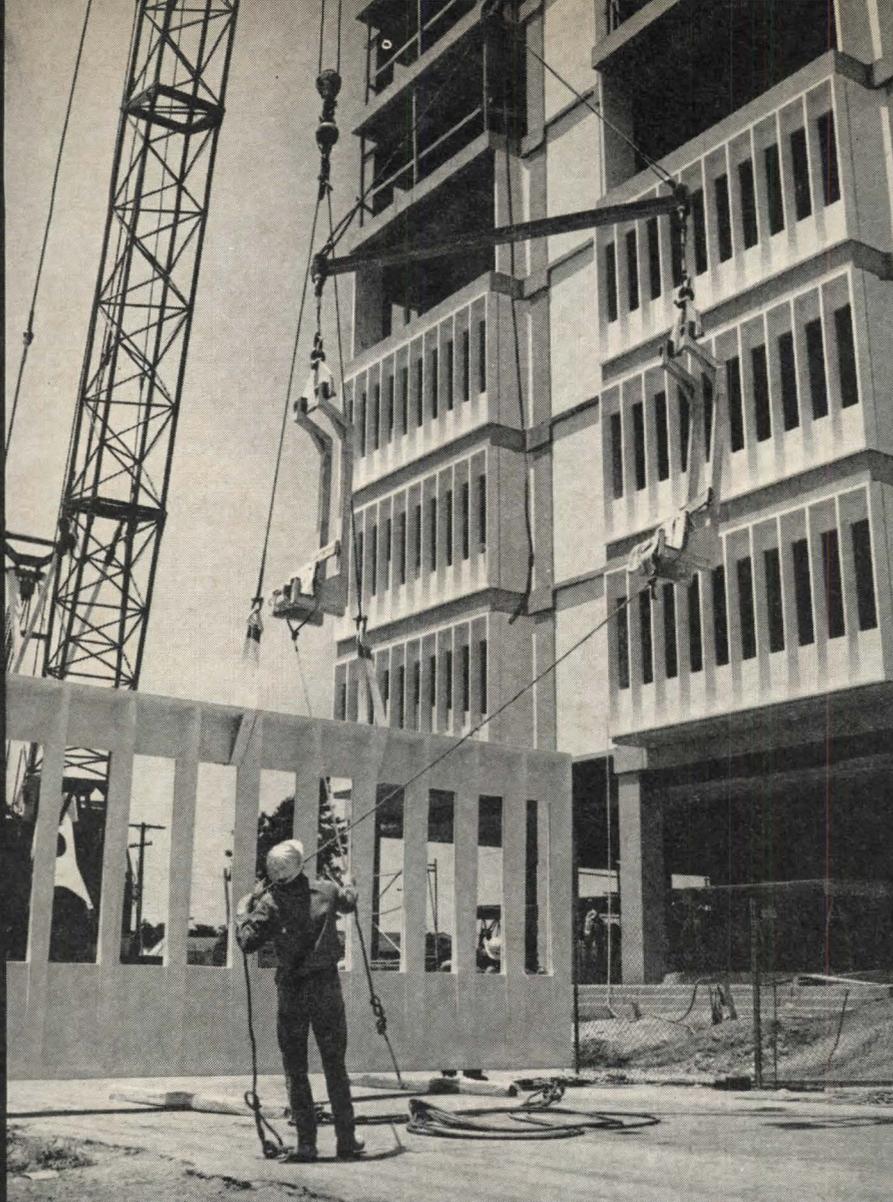
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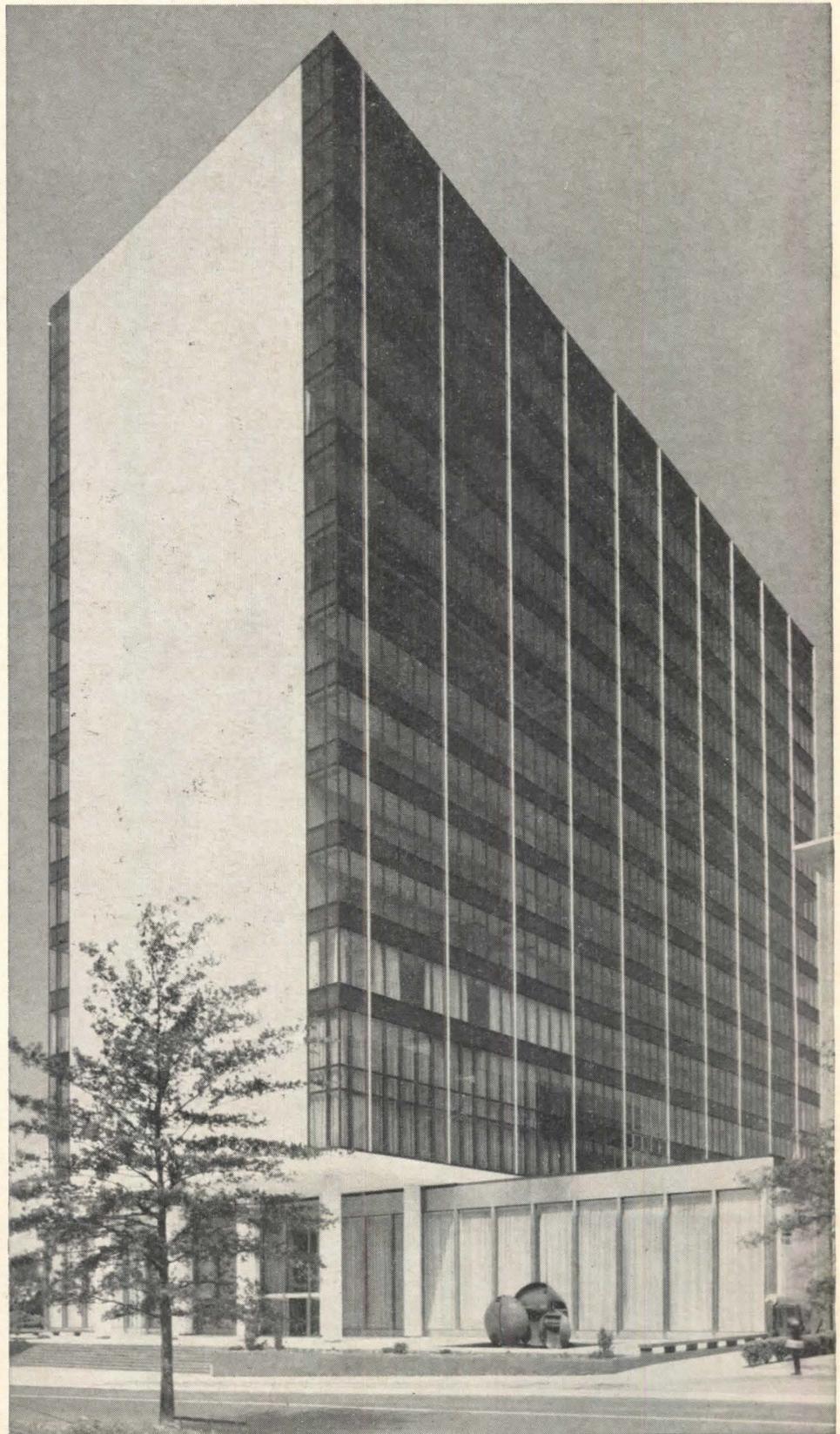
The 5 floors of laboratory furniture which Blickman installed are of phosphatized-bonderized enameled steel that provides a non-rust, chemical-resistant and impact-resistant finish. In choosing Blickman Conflex furniture, Hoffmann-La Roche achieved the ultimate in flexibility and endurance.

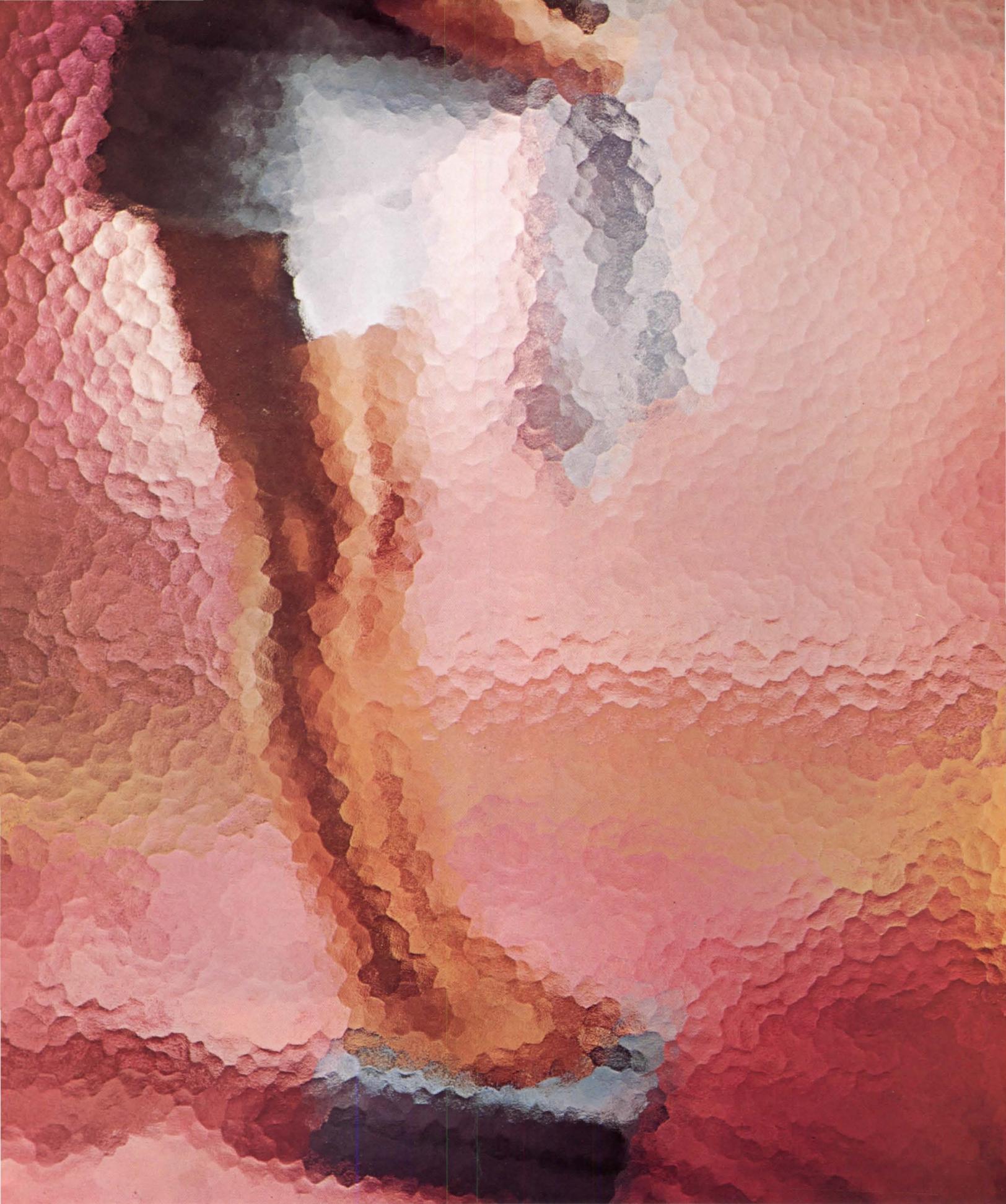
For more information about Conflex laboratory furniture, write S. Blickman, Inc., 7811 Gregory Ave., Weehawken, N. J. 07087.



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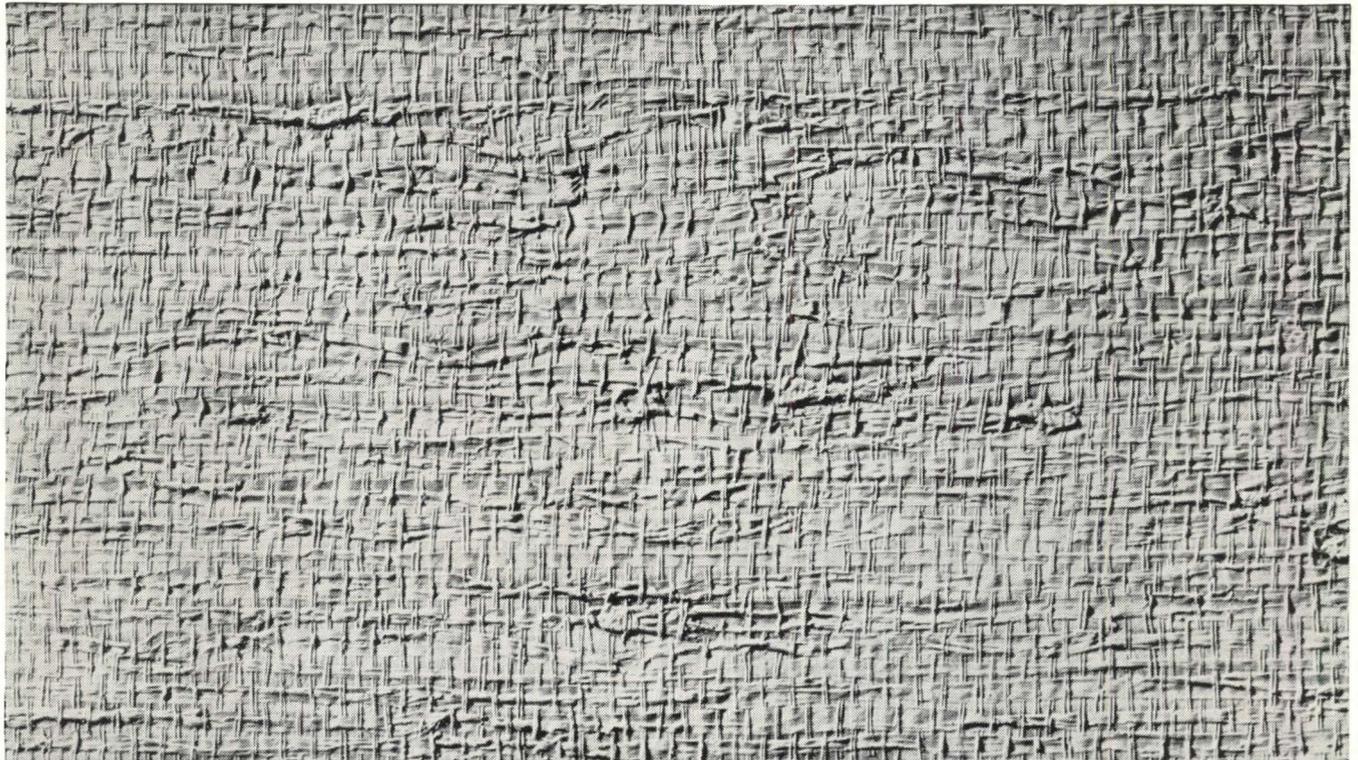
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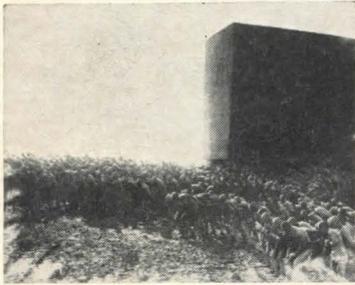
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LETTERS

BLACK AND WHITE SPECTACLE

Forum: Your story on the Venezuelan Pavilion at Expo 67 (Sept. issue) reminded me of an old movie still I have been keeping among various other souvenirs.



Here it is.

JACK MASEY
Washington, D.C. U.S. Information Agency

DROP-IN AND LOOK-SEE

Forum: Your September issue was one of the best, even down to Mrs. Moholy-Nagy's strange doctrinaire defense of the Yale A and A Building.

Inspired by the article on Drop City, I visited there with my family last week and was pleasantly surprised by the gaiety of the place, in spite of the desolation of the immediate landscape. (By the way, the general setting is not a "dusty, sunbaked prairie," but rather a high farming plateau, with mountains on two sides, and the distance from Trinidad is 2.5 miles, not 25 miles.)

We talked to Mr. Peter Rabbit, one of the droppers, who said the domes are habitable in the cold (although sunny) winters there. He has lived there for 2½ years. The chief building designer, known as Luke Cool, has devised some most intriguing methods of cutting out car tops with a jig and power saw, and who has used several methods of constructing these geodesic domes. The light theater (and painting studio) shown in your lower left picture is framed in 2 by 4's, spliced with cleats, and joined by short 4-in. lengths of 4-in. pipe which is drilled on six sides. Lag bolts are run through the holes into the ends of the 2 by 4's.

An even more interesting piece of structural technique is in the building (a house) which shows at the extreme right of your large picture. This is constructed entirely by bending down the edges

of the triangular car-top pieces, roughly 1½ in. to 2 in., and simply attaching these flanges together with sheet metal screws, creating an integral "frame." When finished, it will be lined completely with paintings which form the entire interior dome surface. The structure of this building was built for \$15.

There are apparently Drop Cities springing up in several locations—one in New Mexico, called Lama and located near Arroyo Hondo, and, of course, a couple in California.

PHILIP ATCHISON
Denver, Colo. Architect

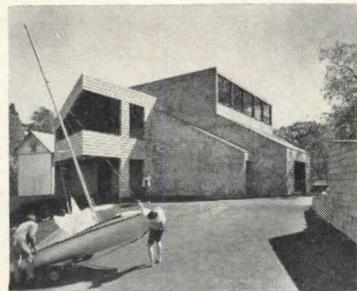
FORUM TO THE RESCUE

Forum: Your article concerning the huge circular coliseum that was to be built in the "Old City of Savannah" [June '67 issue, page 84] was excellent.

Shortly after your article was published, the city administration decided to scrap the plans for this coliseum—even though the plans and specifications had, for all practical purposes, been completed. They have now decided to erect a new auditorium and an exhibit hall on the same site. These will be rectangular buildings, and the scale will be such that they will, in all probability, fit very nicely into the "Old City Plan."

Those of us who have been concerned about this matter deeply appreciate what The Architectural Forum has done to help us. Apparently, the article was most effective.

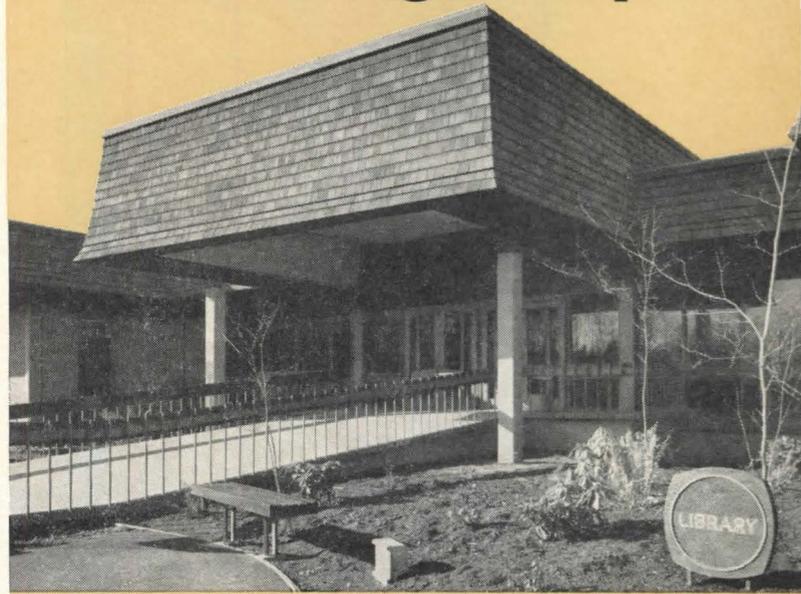
WILLIAM P. BERGEN
Savannah, Ga. Architect



FOULED LINES

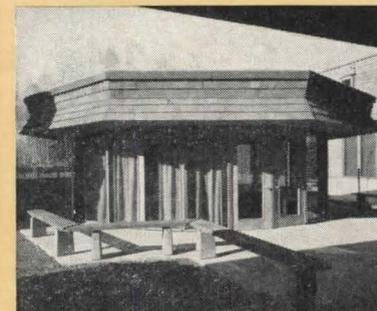
It must have been an excess of enthusiasm for the design of the Yale Corinthian Yacht Club (above and Oct. '67 issue, page 58) that caused the Forum to neglect the architects' names. They were Davis, Cochran & Miller; the designer was John Matthews. Our apologies—and our hopes for smoother sailing in the future.—ED

Woodland beauty preserved on new college campus



Washington's new Green River Community College Campus is sited onto the natural contours of a 240-acre wooded site along the river. According to partner-in-charge Norman G. Aehle, A.I.A., of Seattle's Sullam & Aehle, architects, "The area selected for the buildings had been second-growth evergreens, logged over at the turn of the century, leaving a warm-toned heritage of sculpturally decaying cedar stumps and windfalls."

Aehle's design problem was twofold. "The natural beauty of the site made great demands of the architecture placed in it," he says, "and a very limited budget meant that buildings had to be constructed of economical and ever-available materials. Design was keyed to a program of planned alteration and modification."



Materials that would reflect the site's wilderness beauty—and be readily available for future additions to the prototype—led Aehle to select Green River gravel dashed into a matrix of Portland cement, and an abundance of wood in the form of cedar shingle fascias, cedar T1-II soffits, exposed glu-lam beams and fir skirt boards.

Then his search for a dependable, beautiful way to preserve the natural

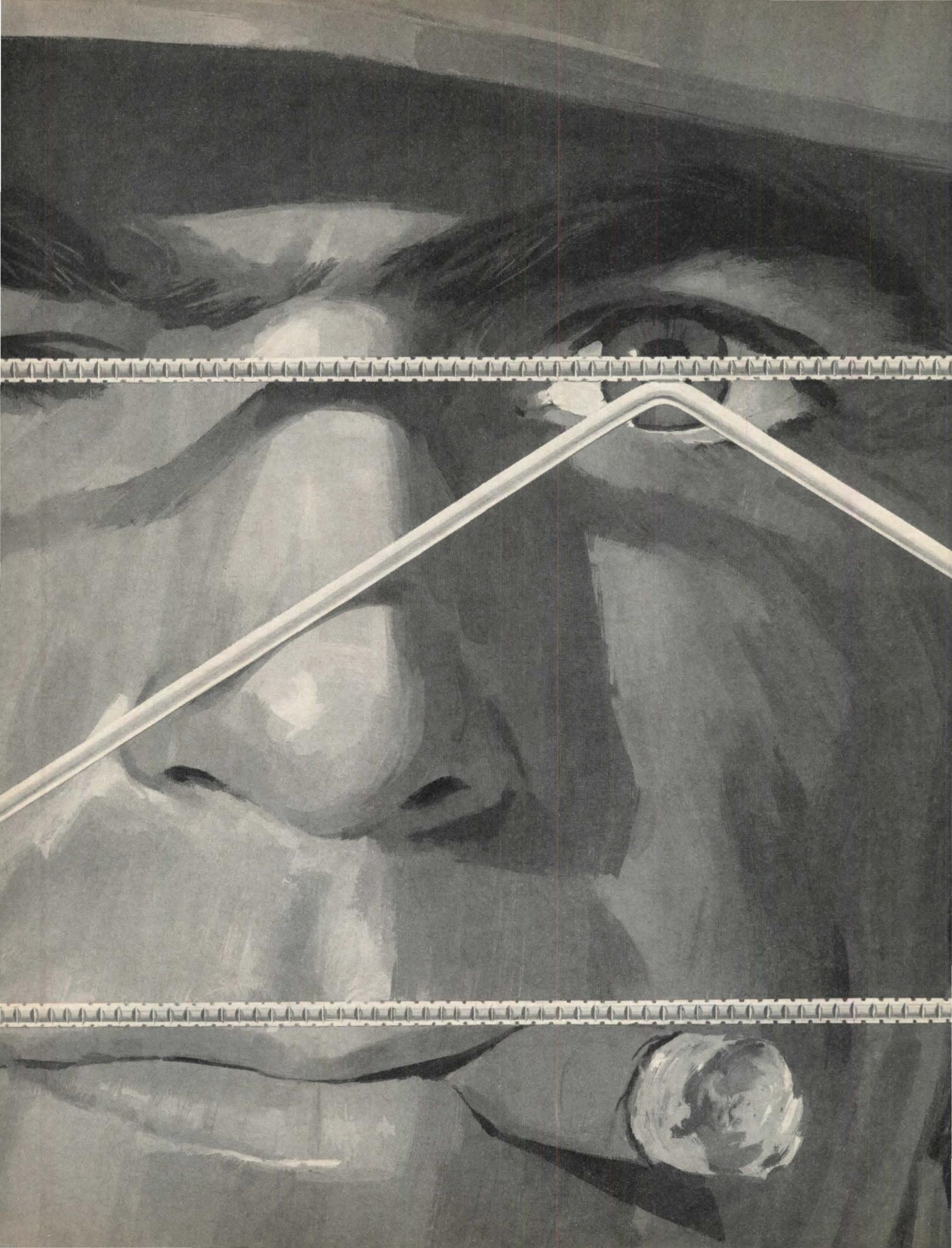
wood led him to Olympic Stain. "There are no painted wood surfaces in the entire 140,000 square feet of buildings," the architect reports. Olympic Stains are used on doors, doorframes, light standards, rough sawn cedar tack-boards, railings, benches, fences and even the campus hand-carved signs.

In short, virtually all the wood of the project was stained with Olympic. Because of the proximity of the campus to an Olympic Stainer, Aehle was able to have the cedar shingles pre-stained, to insure thorough preservation and color uniformity as well as reduce on-site labor costs significantly. Olympic's 707 Semi-Transparent was selected to echo the beautiful warm tone found on the site in cedar stumps and windfalls.

Visitors to the college are impressed with the harmony of the buildings and their surroundings. "A significant factor in this relationship," architect Aehle feels, "was the extensive use of warm-toned stained wood."

For color samples on wood and ne A.I.A. Information Manual, write Olympic Stain Company, 1118 N.W. Leary Way, Seattle.





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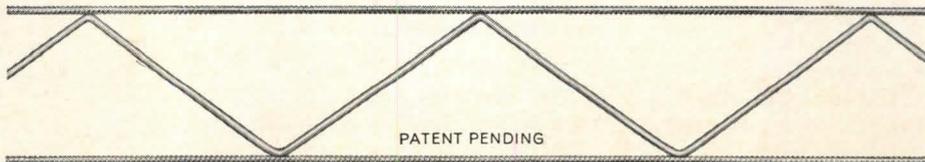
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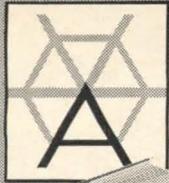
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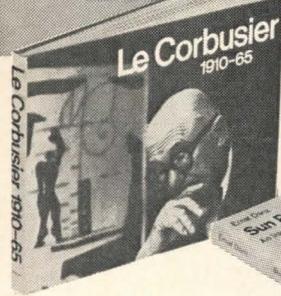
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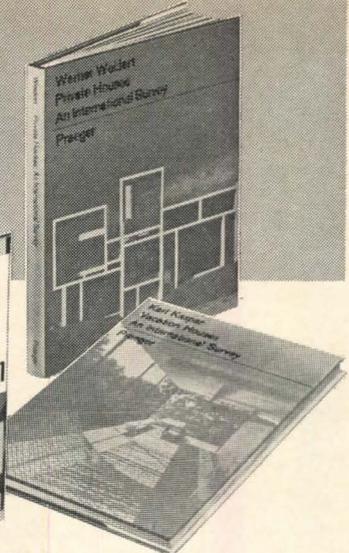
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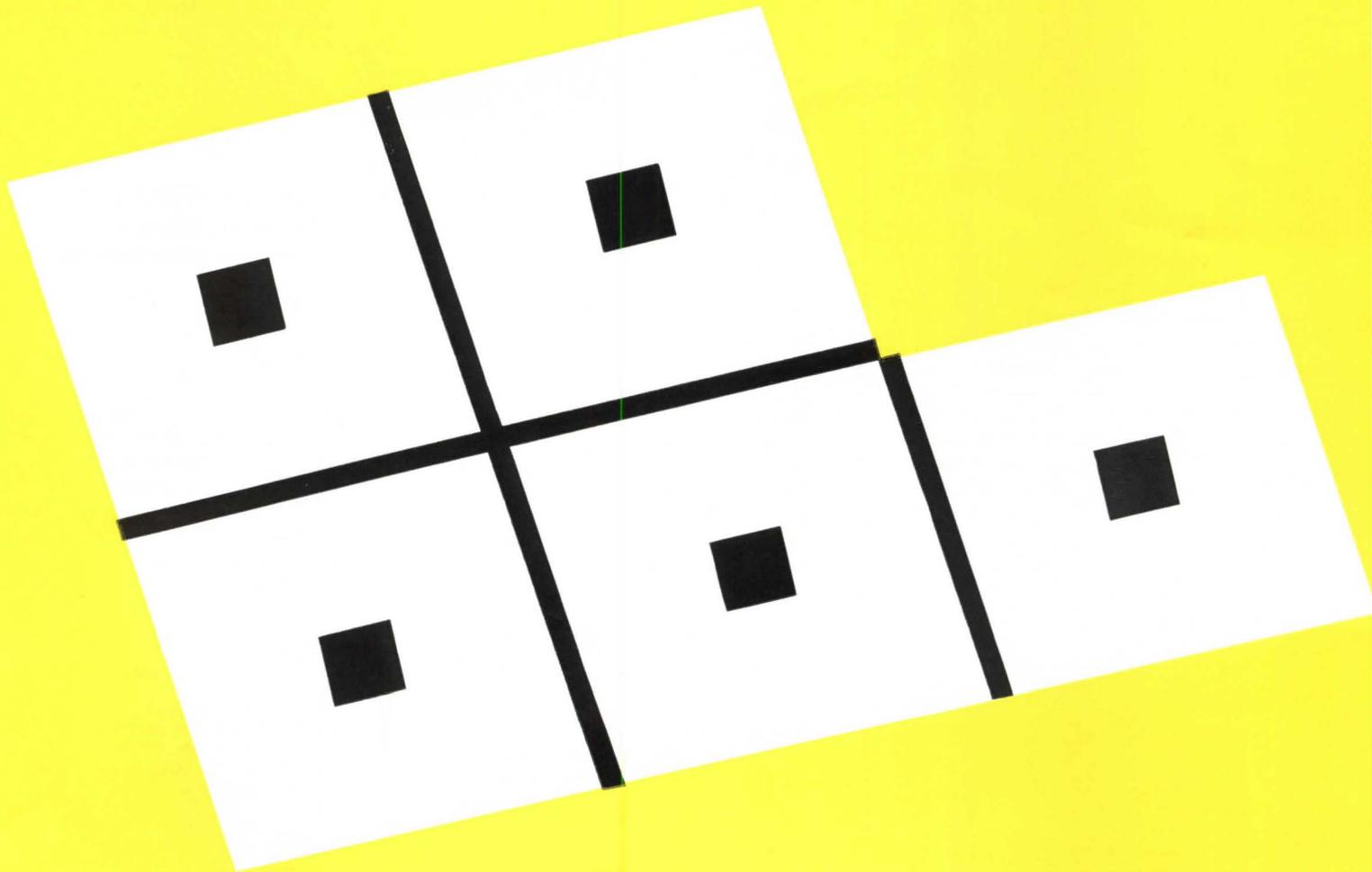
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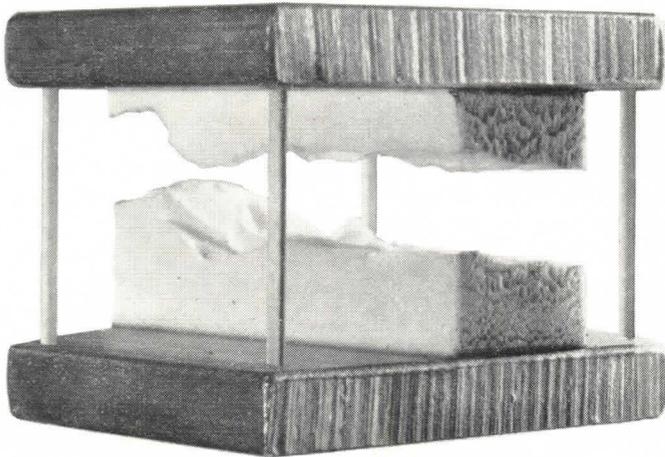
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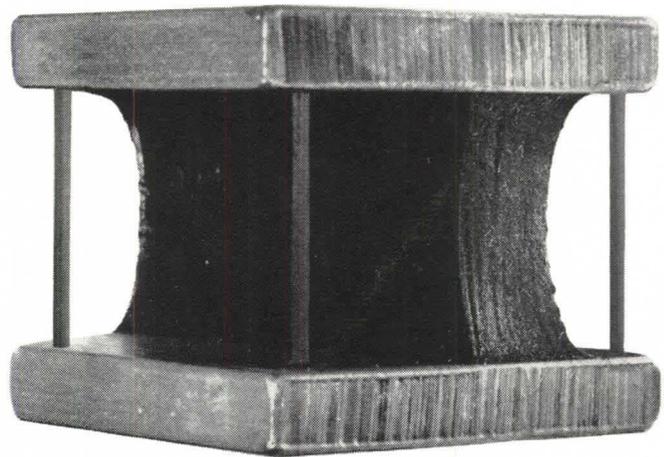
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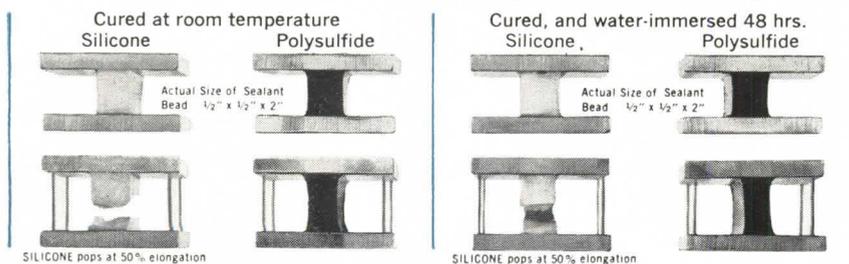
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FORUM

After months of wrangling, debate, and finally compromise, the House and Senate last month agreed on appropriations for the Administration's rent supplement and model cities programs. The result was to make two ludicrously inadequate programs even more so.

For rent supplements, the two chambers appropriated a grand total of \$10 million, which was \$10 million more than the House had passed previously, and \$30 million less than the Senate (and the Administration) had wanted. For model cities, the compromise figure was \$300 million. The House had voted \$237 million, the Senate \$537 million, and the Administration had asked \$662 million.

Thus, at a time when literally billions—not millions—are needed by our afflicted cities, Congress has dispensed a few peanuts. The money for rent supplements will cover 10,000 units—70,000 less than several life insurance companies alone were prepared to finance.

"Absolutely — We've Got To Practice Real Down-To-Earth Economy"



© 1967 Herb Lubner in the Washington Post

The \$300 million for model cities could easily be absorbed by one major city and still not finance all that's needed. But the monetary level at which Congress and the Administration bickered was so far removed from the facts of the urban crisis that the outcome hardly seemed to matter.

Yet, had Congress appropriated all, or almost all, of the monies requested by the President, it might have given some slight cause for hope—hope that Con-

gress might be showing the first glimmer of recognition that our cities are in desperate crisis.

As it is, America's urban dwellers, especially the poor and black, have no reason to be thankful for the 90th Congress which coldly ignored their plight.

MISSPENT THRIFT

On October 18, the House of Representatives voted 238 to 164 to order the President to reduce nonmilitary spending by at least \$5 billion, and possibly by as much as \$7 billion. (A week later, the Senate refused to go along.)

In the course of the debate that preceded its vote, the House, with much hilarity, declined to reduce pork barrel projects, or to volunteer a 5 per cent cut across the board in Federal projects in every member's own district.

The best comment on this impressive performance, in our view, remains a remark made by John K. Galbraith at the September 1966 conference on "Our People and Their Cities," sponsored by Urban America. On that occasion, in Washington, Professor Galbraith said:

"Those who are now calling, so righteously, for shelving the Great Society because of the Vietnam war are asking that the well-to-do taxpayer, whose income is at an all-time high, be protected at the expense of aid to . . . low-income housing, etc. . . . This is outrageous."

We agree. Still, it is good to know that the Department of Defense, while engaged in spending the bulk of the money in the Federal kitty, is making some effort to cut its own expenditures: we are in receipt of a letter on Department of Defense stationery from the Laughlin Air Force Base in Texas. It reads, in part, as follows:

"Request you furnish us, at no cost to the Government, your publication Architectural Forum. . . . Due to an extreme shortage of funds, we are unable to purchase your publication through regular subscription channels." (Our italics.)

Our annual rate to the Department of Defense would be \$12, which is the equivalent of the cost of one seventieth of one second of the war in Vietnam! We applaud the effort of the Department of Defense to reduce the cost of its operations, and we hereby bring the matter to the attention of Professor Galbraith.

SUPERMAN

On October 16, New York's Museum of Modern Art opened a 290-piece exhibition of the sculpture of Pablo Picasso. It is the largest and most representative exhibition of his sculpture ever put on, and one of the finest of the MOMA, where it will stay until January 1.

The work, mostly from Picasso's own collection (examples below), spans 65 years of activity. Few Picasso admirers could have realized how prolific he was and is as a *sculptor*: the output shown at the MOMA probably exceeds the entire work of many full-time sculptors, and the museum's display includes only about three-fourths of Picasso's work in sculpture to date.

But quite apart from the volume of his plastic work, there is the expected superlative quality—plus the revelation that almost every other work has spawned a complete "school" of new sculptors, whose production has been



based, in its entirety, upon one or two of Picasso's prior experiments: one sees "junk sculpture" done 20 years before the advent of "junk sculptors"; assemblages of bits and pieces of machinery and tools done a generation prior to Smith and Caro; pop images that antedate Pop by several decades; and—most important of all—a degree of self-deprecating wit that makes all the innumerable disciples look like fairly pompous asses.

It is too bad that Picasso had no time to experiment with architecture. But, then, he is only 86, and he may get around to that any day now.



SCULPTURE INTERRED . . .

What is a city's responsibility to culture? The question was asked last month during a day-long symposium sponsored by the New York Cultural Showcase Foundation. The city's Office of Cultural Affairs answered with an outdoor sculpture show—privately financed—to last till mid-November in locations from Battery Park to Harlem. The pieces are by well-known and lesser-known artists. Many had merit; but the scale of the city engulfed them all. Perhaps with this in mind, Claes Oldenburg decided to bury his from the start. He dug a grave in Central Park, put nothing inside; closed it up again; and called it "invisible sculpture" (above). Doris Friedman, August Hecksher's special cultural affairs assistant, who organized the sculpture exhibit, said she "was very moved by the whole thing."

. . . AND ART AIRED

With a much longer tradition of outdoor art exhibits to its credit, San Francisco celebrated its 21st annual San Francisco Art Com-



mission Art Festival in September with a display of works by 2,500 artists and artisans (sampling above, with the City Hall as an imposing backdrop).

Sculptor Bruce Beasley's *Vascone No. 2* and Gerald Bol's *Sculpture No. 5* won the major purchase awards of the festival. Also a part of the festivities were performances of rock, poetry readings, and productions of plays by Shakespeare and Ionesco. The festival director was Sculptor Elio Benvenuto. He was very much moved, too.

UPS & DOWNS

MILESTONE IN MADISON

Frank Lloyd Wright had his day in court on September 12. The result would have pleased him.

On that day, Wisconsin Circuit Judge Edwin Wilkie handed down a ruling that not only paved the way for the construction of Wright's famous, long-delayed Monona Terrace Project in Madison (below and April '55 issue), but set a precedent that could have far-reaching effects on municipal architecture throughout the country.

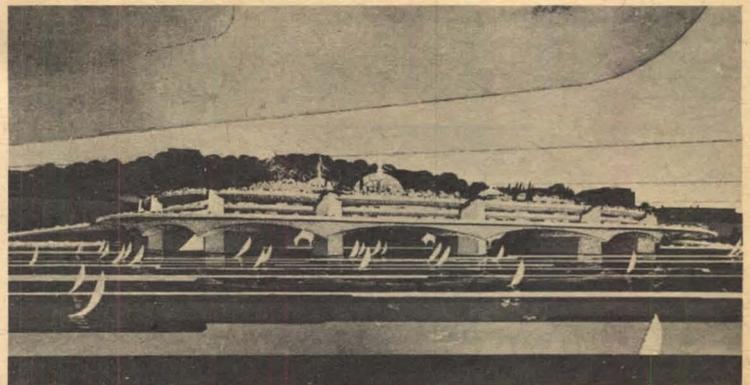
Barring appeal, the ruling disposes of a taxpayer's suit which had challenged the right of the city to select an architect solely on the basis of reputation and ability

to perform, and to pay a higher than customary fee. The suit was the latest in a long series of obstructions that have plagued the civic center project since Wright proposed its first design in 1954.

That design immediately met with entrenched political opposition, partly because it placed a portion of the complex on a platform over Lake Monona, rather than on privately held real estate. But the citizens of Madison liked it: more than 7,000 of them signed a petition to put the issue on the ballot and, by a 2-1 vote in 1956, approved a \$5½ million bond issue to get it built—specifically on the proposed site "according to the plan of Frank Lloyd Wright."

Since then, the project has been an on-again-off-again affair, depending on who was running the city government at the time. But it appeared to have jumped its final hurdle last November when, thanks to a new pro-Wright mayor, Otto Festge, the city signed a planning-design contract with the Frank Lloyd Wright Foundation, the firm established after Wright's death in 1959 to carry on his works.

Then Madison Attorney Carroll Metzner brought suit, claiming the city had acted "capriciously" in selecting the Foundation as architects. Judge Wilkie disagreed. "In the selection of professional people to render professional services," his opinion stated, "it is reasonable for city officials to seek out the person whose talent the city wishes to engage. Architecture is an art and a science. It was thus reasonable and proper for the city officials . . . to settle upon an architect whose talents and abilities they felt were best adapted to the project at hand. It was not requisite that they seek 'bids' . . . Indeed it would be to the disadvantage of the state or municipal corporation to regard the cost of architectural services as the primary factor in





the selection of an architect."

The major significance of the decision, in the view of William Wesley Peters, chief architect of the foundation, is its recognition of the validity of "comprehensive architectural services." Peters points out that the contract gives the foundation responsibility for the entire project, including the site planning, landscaping, and the disposition of all the buildings and facilities. The fee, which is worked out on a complicated sliding-scale basis that averages out at about 9.8 per cent, is "no larger than that recommended by the AIA" for such services, Peters claims.

The ruling, Peters said last month, is "a milestone in the architectural field."

OUT OF LOVE, OUT OF SIGHT

The trustees of Washington's John F. Kennedy Center for the Performing Arts either have short memories or they are playing out the final acts of a cynical Machiavellian plot.

The trustees of the center have just demanded that Washington's planning and zoning authorities prohibit construction of a building for which they previously had nothing but kind words. The building is the fourth and final section of Watergate, a highrise residential-commercial-office complex which occupies a site on the Potomac next to the Kennedy Center.

When the trustees announced selection of their site for the center more than two years ago, the AIA and others protested on several grounds (Sept. '65 issue)—a minor one being that the center would lie rather close to Watergate, which had already received approval and was under construction. The trustees pooh-poohed the complaints, and Edward Durell Stone, architect of the center, said "I think they will look wonderful together" (see rendering above).

But now that the center is safely under construction, they have suddenly changed their tune. Last month, during a hearing of the District's Board of Zoning Adjust-

ment, Stone said that Watergate's last—and closest—section "should never be built if we are to preserve and respect the memory of a President."

It was an inappropriate time to speak of memory. David N. Yerkes, chairman of the AIA's commission on public affairs, read a statement in behalf of AIA President Robert L. Durham which reminded the center people that they had once spoken lovingly of Watergate. The statement also pointed out that lopping off Watergate's final unit "would cripple the project physically and economically," and it posed a pertinent question: "Can developers, architects, and planners concerned with long-range projects in the District depend on the integrity of the public agencies with which they have to deal, and the permanence of commitments made to them by these agencies?"

In response, the center's general counsel, Ralph Becker, asked Yerkes if he, as an architect, would put a building 200 ft. from the Lincoln Memorial that would tower 60 ft. above it. "The answer is no," said Yerkes. "Nor would I build the Lincoln memorial 200 ft. from a building which would tower 60 ft. above it."

Aside from the fact that Watergate would be 300 ft. away, not 200, Yerkes' reply summed up the situation rather neatly.

THE NEW MENACE

When the Pennsylvania Avenue Commission released its handsome plans for the nation's Number One Paraground a couple of years ago, one of its most persuasive recommendations was to have all sidewalks on Pennsylvania Avenue arcaded, à la Rue de Rivoli.

The first building of any significance to have been planned for Pennsylvania Avenue since the commission recommended arcades was the new headquarters for the F.B.I. (right), designed by C.F. Murphy Associates, a firm dedicated to better urban design. They complied and provided arcades.

So far, so good. Alas, a few months ago C.F. Murphy's clients had a change of heart: no arcades, they said, and got the change approved by the National Capital Planning Commission. Everybody from the Pennsylvania Avenue Commission's Top Cop, Nat Owings, down to various local architects protested vigorously—but to no avail. Nobody in Washington has ever been successful in blocking the F.B.I.

When asked for an explanation, Mr. Hoover's assistant, John P. Mohr, gave this unsettling answer: "We've got a lot of undesirables in that neighborhood . . ." and suggested that arcades would provide a hiding place for muggers.

Making fun of the F.B.I. is like shooting at sitting ducks, and we're not about to participate. But honestly, J. Edgar, if you can't guarantee the security of your own staff, how will you retain the confidence of the rest of us in our hour of maximum peril?

DISCOURSE

A CONFRONTATION

As the American Institute of Planners opened its 50th-year celebration in a carpeted ballroom of the Shoreham Hotel in Washington last month, the young Planners for Equal Opportunity took its rival conference into the fresh air of the Shoreham terrace (above right).

The AIP had billed itself, rather self-importantly, as "The nation's consultation on The Future Environment of a Democracy" and had commissioned papers from an impressive group on the subject

"The Next Fifty Years 1967-2017." The three-year-old PEO called its conference "A Special Program on Planning: Black and White: Today."

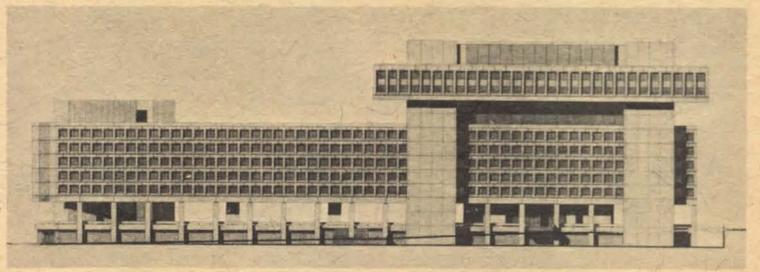
► On the first day, while the AIP heard papers on "The Role of Art, Spirit, Science, and Technology in Creating the Future Environment," PEO rolled up its shirt-sleeves to argue the fine points of advocacy planning for racial justice and social needs.

PEOers were free to attend AIP's "Evening with" Herman Kahn, Robert Theobald, Claude Brown, Max Lerner, and Carl Oglesby, and to hear themselves inaccurately called hippies. "And we're too old to be New Left," said one PEO member, speaking for the group of some 300 plan-



ners, many of whom are in their thirties (and in AIP too). Theobald won applause for saying, "You have been planning for people for 50 years, now it's time to plan with people."

► On Tuesday, the AIP heard Gunnar Myrdal comment on the unplanned happening that is the Vietnam war, on the desperate condition of Negro and white poor, and on the failure of most Americans to question national priorities. He urged planners to enlighten the people. The PEO group heard a strong keynote address from PEO President Walter Thabit, taking a hard-headed look at the tragedy of ghetto conditions, and calling the model cities program a fraud. Thabit urged planners to help Negroes become effective participants in the decisions affecting their lives, and to work for a Negro-white coalition in the cities.



50 YEARS AGO THIS MONTH

the Bolsheviks seized power—first in Petrograd, and later throughout what was to become the Union of Soviet Socialist Republics.

The nation seized by the Bolsheviks in November, 1917, was one of the most backward in the world, in terms of technology. Today the U.S.S.R. is, technologically, one of the most advanced. Much of the price paid for this advance has been horrible. But the advance is now a fact, and that fact is worth recording.

The advance has been most spectacular in two areas: in space technology, and in building.

On the following pages, we present a report on the state of building in the U.S.S.R. today. The text* is by Ada Louise Huxtable, the *New York Times's* architecture critic; and the photographs are from various sources. Mrs. Huxtable returned from an extended tour of the U.S.S.R. a few weeks ago. She may be the first architectural critic from the West, in many years, to have had a chance to obtain a comprehensive view of new architecture and urban design in that country.

Later on Tuesday, AIP went dancing and PEO considered the crises in foreign and domestic policy. Rep. John Conyers (Dem., Mich.) pointed to the huge sums spent in Vietnam as the largest prohibition to necessary domestic programs. Chester Hartman, assistant professor of city planning at Harvard, drew parallels between the responses to Vietnam and to the urban disorders—a similar attitude toward both peoples (as primitive and unable to govern themselves), an unwillingness to see basic change in either society (with land reform, or with an end to ghetto conditions), the reliance on repression (more bombs and more policemen), and the resulting destruction of both cultures (by strategic hamlets and urban renewal).

► On Wednesday, AIP went to the new towns of Reston and Columbia (page 42), and PEO went on a "now town" tour of deteriorated Washington (page 72).

► And on Thursday, after the PEO conference was officially over, the rebel planners engineered a confrontation with the full AIP body. At 7:30 that morning, Bayard Rustin had agreed to give them part of his time on the AIP program; he used his full 20 minutes, however, and then turned the meeting over. PEO resolutions urged the AIP to judge planning programs at Federal and local levels according to their effect on the poor and on minorities, to develop criteria for evaluating current and proposed legislation, to expedite the entrance of minority groups into the profession, and to find ways to provide planners as advocates for the poor and minority groups.

These resolutions, and some strong policy positions from PEO, were referred by AIP to its recently formed committee to study the impact of public planning on the minorities. The committee, not yet funded, is headed by Robert Heifetz, a PEO member. Whether the AIP was only waiting to be pushed, as some suggest, remains to be seen.

DISPUTES

TANGLED WEB

"Even in its most fragrant days Tammany Hall never thought up anything like this," wrote *San Francisco Chronicle* Columnist Charles McCabe last month. He was referring to the actions of a

group of prominent California businessmen who want to build a new governor's residence for their friend Ronald Reagan.

"On August 18," McCabe reported, "a pal of Guv Reagan's, Leland M. Kaiser, a San Francisco investment banker who is treasurer of a fund for a new governor's residence, sent out a letter to 469 registered lobbyists in Sacramento, putting the arm on each for \$1,000. Had each of the lobbyists succumbed to this kindly request, the new residence would almost literally be theirs, as the total estimated cost is \$550,000. However, not having been born yesterday, none of them pledged the sum requested. Kaiser, a persistent chap, sent a follow-up letter 'to impress on each of you the need for your help.' So far, the response has been reported minuscule."

But the group is undaunted. It has picked out a site for the residence, on a knoll overlooking the American river ten miles from the statehouse, and has named Dreyfuss & Blackford of Sacramento as architects. These actions have raised a few more eyebrows around the state.

After all, the California legislature several years ago set aside a plot of ground near the capitol as the official site of a new governor's mansion, and an official design competition was held for it more than five years ago (April '62 issue)—though the legislature never got around to appropriating construction money after that.

To further complicate matters, Albert M. Dreyfuss, of Dreyfuss & Blackford, is chairman of the State Capitol Building and Planning Commission and a past presi-



dent of the California Council of the AIA. Both groups are on record as favoring construction of the mansion on the official site, based on the competition-winning design by Worley Wong, Allan Don Fong, Harry W. Nimitz, and Terry Tong (above).

Dreyfuss thinks this position is "very nice," but he takes a more pragmatic view of the situation. He points out that a new mansion has been needed for 30 years, but

(continued on page 89)

* Adapted from *The Soviet Union—the fifty years*, a *New York Times* book just published by Harcourt, Brace & World. © N. Y. Times, 1967.



BUILDING THE SOVIET SOCIETY

BY ADA LOUISE HUXTABLE

"When you are trying desperately to clothe people, you don't worry about sewing all the buttons on." That was the way a Soviet housing official characterized the Gargantuan construction program that has turned the open fields around Moscow and other Soviet cities into a white expanse of standardized residential blocks and created new urban centers from Siberia to the Black Sea. He was describing the most concentrated, large-scale attack on the housing problem and on the industrialization of building anywhere in the world at any time in history.

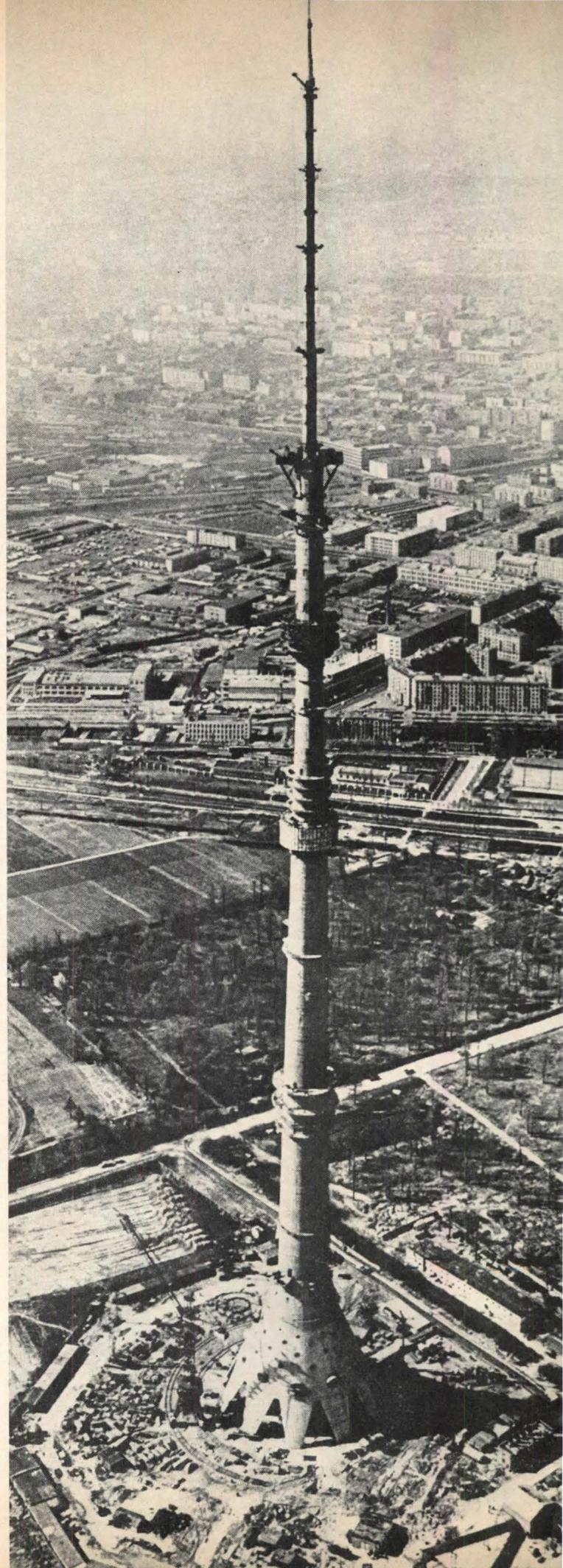
Buttons are off all over the Soviet Union. Construction has left a trail of popping tiles and falling cornices. Even in nearly new buildings, the finishes flake, the joints leak, and the edges meet haphazardly. Western observers report it all. What they fail to report is the story behind the flaws: a remarkable advance in building technology in an incredibly short time—the last decade, to be exact—on a scale that is leaving other countries far behind; and the significance of a 50-year experiment in turning an agricultural country into an industrial country.

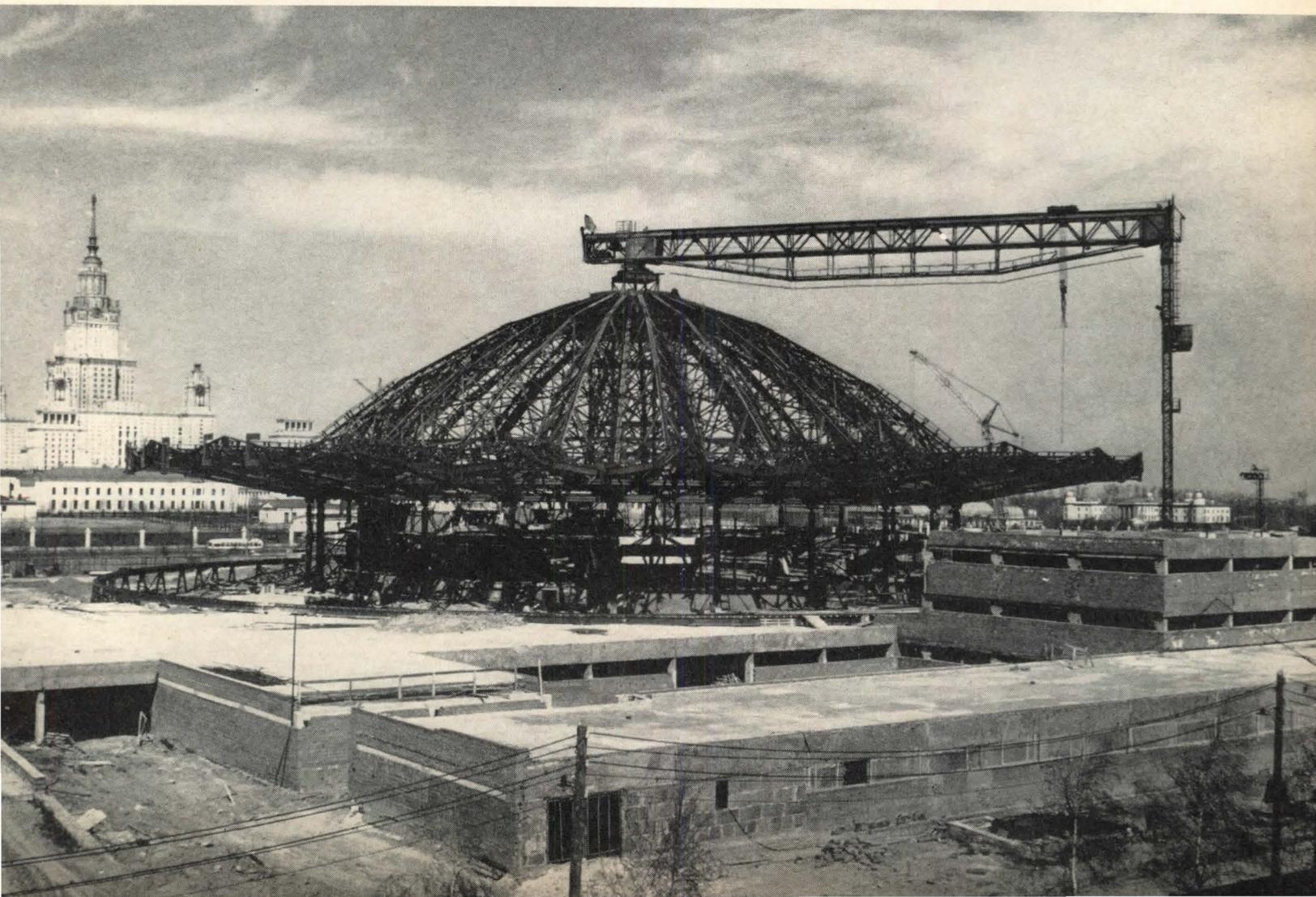
The popular image of Soviet building has been formed by the familiar pictures of the crumbling five-story walk-ups of the

1950s and those identical, pompous, *retardataire*, neoclassical skyscrapers, seven out of the same giant cake mold, that dominated the Stalin-era Moscow view. They are rather funny now, those pretentious, all-purpose, mock-Roman wedding cakes, accommodating with equal ludicrousness the university, the Hotel Ukraina, the Soviet Foreign Ministry, apartments, or whatever; they are acquiring the status of period pieces. One is amused, rather than outraged, because the balance of the skyline is changing so radically.

The wedding cakes face striking competition today: the new Kalinin Prospekt (page 41), at least a third of a mile of dramatic modern skyscrapers in a coordinated design; the svelte, 32-story Council of Mutual Economic Assistance Building (page 36), being put up jointly by the U.S.S.R. and Eastern European countries; a slender, 1,745-ft.-high reinforced-concrete television tower (right); the nearly completed new headquarters of Gosplan, the state planning agency that directs all aspects of Soviet life, soaring behind Gorky Street's traditional facades. Sixteen-story apartment houses are now standard. The steel, glass, and marble Palace of Congresses has stood inside the Kremlin since 1961.

Near right: the 1,745-ft.-tall TV tower in the Ostankino district of Moscow. Far right: (top) the new hotel in Irkutsk, near Lake Baikal, near the Mongolian border; (bottom) the new steel structure for the famed Moscow Circus (currently touring the US). It will have 3,200 seats and four rings, and its domed roof has a diameter of 330 ft. Detail on previous page shows circus under construction.





The new buildings are increasingly sleek, assured, uncompromisingly contemporary versions of the International Style. Reactionary Soviet Pseudo-Classicism is a thing of the past. Finishes, although still far from Western standards, are improving noticeably. More important, with a few exceptions the distinctive style of the new work is the result of the Soviet system of large-scale prefabrication.

To produce enough buildings to meet the need and do it economically meant mass production—manufacture of standardized building parts on a very large scale. The Russians bought and borrowed some techniques, developed others. Whole factories were purchased from France, bits of technology were taken from Sweden and Denmark. To coordinate prefabrication and construction in unprecedented volume, the factory combine was developed to unite manufacture and site erection. In a country with the extreme climatic conditions of the Soviet Union, factory prefabrication meant year-round production and employment. Otherwise, the building season, with its “wet” on-site operations, must be limited to temperate times of the year, which also cuts the volume of production.

Today, after ten years of

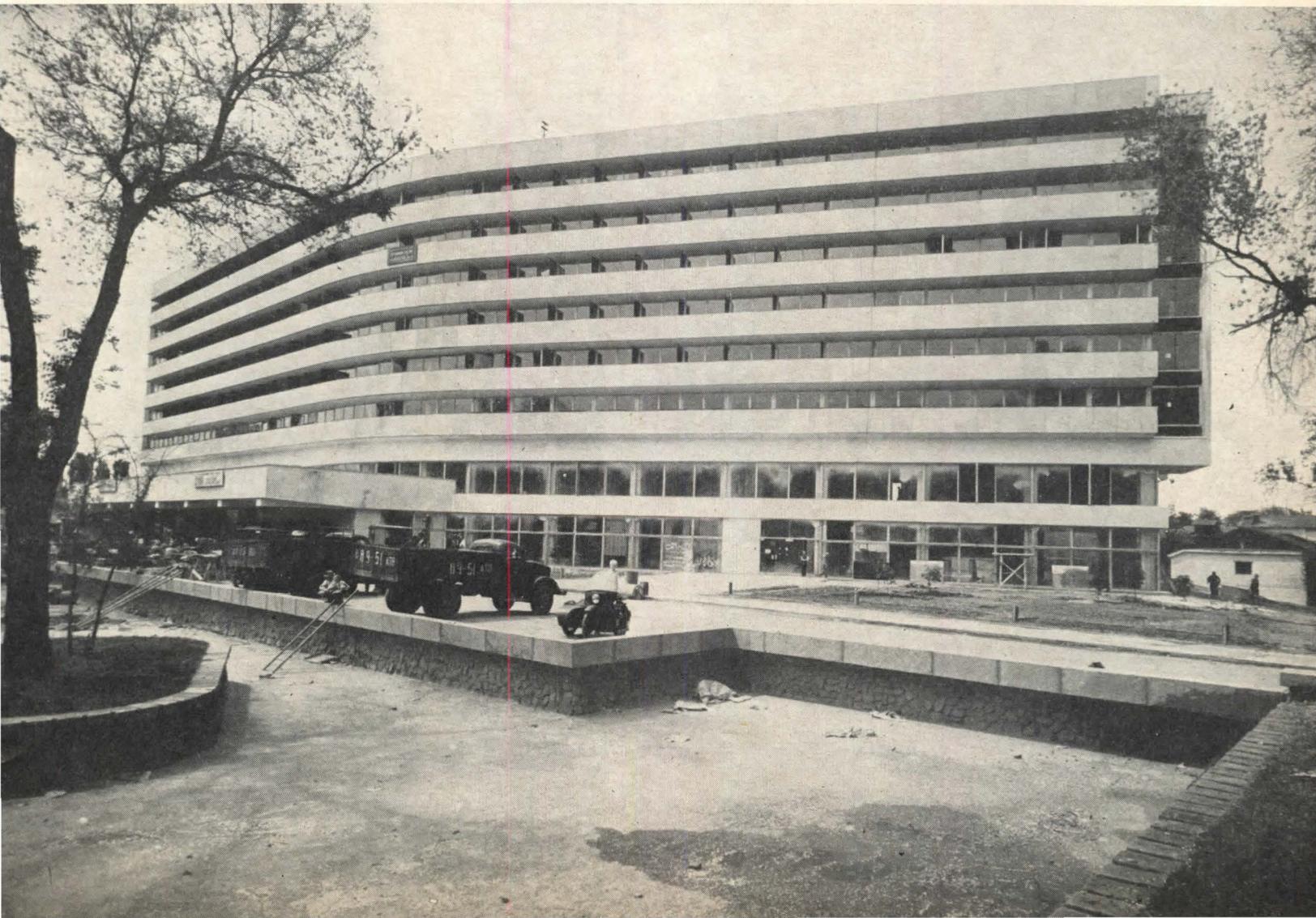
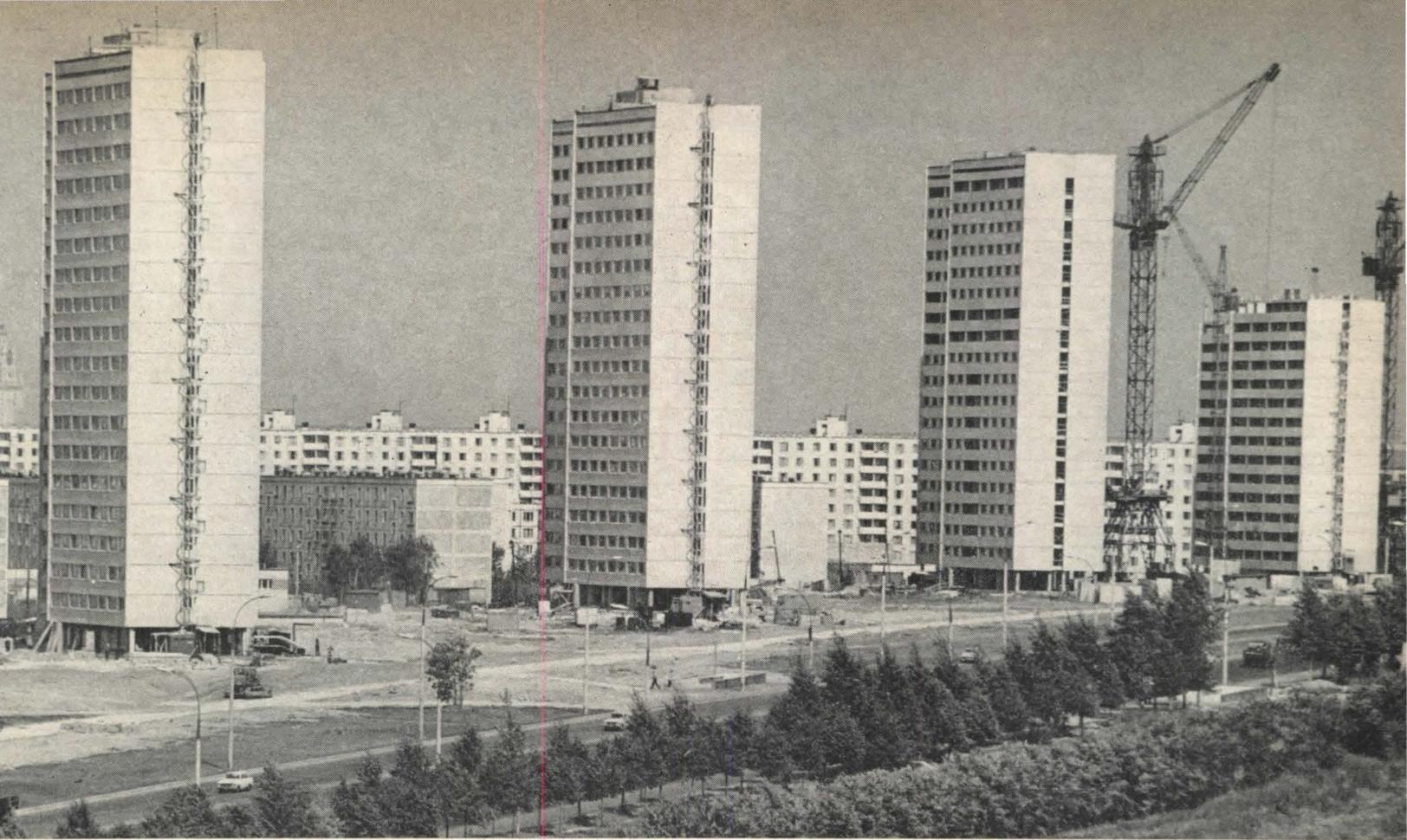
work, the Soviet Union has the largest cement manufacture and the most progressive reinforced-concrete building technology in the world. There was no preoccupation with design finesse, just with mass production. Only now are design and manufacturing reaching a point of more sophisticated coordination that approaches the Western idea of architecture. This is what the visitor is beginning to see.

Soviet cities show comparatively little building from the 1930s and 1940s. The main push was going into power plants, steel mills, and armaments, an emphasis intensified under Stalin, and World War II interrupted construction of all kinds. Living standards that were bad became more critical with the war. An incredible amount of the already insufficient housing stock was wiped out. The Institute of Town Planning lists 1,700 cities and towns that were 50 per cent to 100 per cent destroyed. Minsk and Stalingrad, now Volgograd, for example, had to be totally rebuilt. The initial postwar effort went into the reconstruction of destroyed and damaged cities. By the 1950s the housing crisis, always bad, had become a top-priority item. The country mobilized its efforts to meet it.

Starting from virtually nothing, the job has been done.

Top right: new housing going up along the Leninsky Prospekt in Southwest Moscow. Highrise towers alternate with 5-story walk-ups. Stalin-era Moscow University is visible in the distance. Bottom right: two curvilinear structures—the tall Comecon Building, headquarters for the East European “common market” organization, not far from Hotel Ukraina in Moscow; and the elegant hotel in Alma-Ata, capital of Kazakhstan.





Although there is considerable talk in the planning offices about varying the new towns to fit local conditions from tundra to desert, this still appears to be largely wishful thinking. Standard layouts and standard buildings are used over and over again. Seeing one new town is not seeing them all, but it is close to it.

There is a surprising pleasure in conformity, a contentment with regimentation in the Soviet system and philosophy, that militates against the variety, human scale, and individualism that is desirable to the Western mind. There is also a surprising pride — so much has been struggled for, so much is hard won — that makes Soviet cities and public spaces, in spite of monotony or shabbiness, well kept.

Russians love and respect things big, new, and standardized, and in mass multiples of thousands — the biggest swimming pools, the biggest stadiums (opposite), the biggest housing developments and, now, the biggest theaters and hotels (bottom right). In one of those curious paradoxes that pop up all over the Soviet Union, the enchantment with size has a peculiarly American ring. They are planning cities for 500,000 now. The new Fiat plant, scheduled to open in 1971, will be in a city

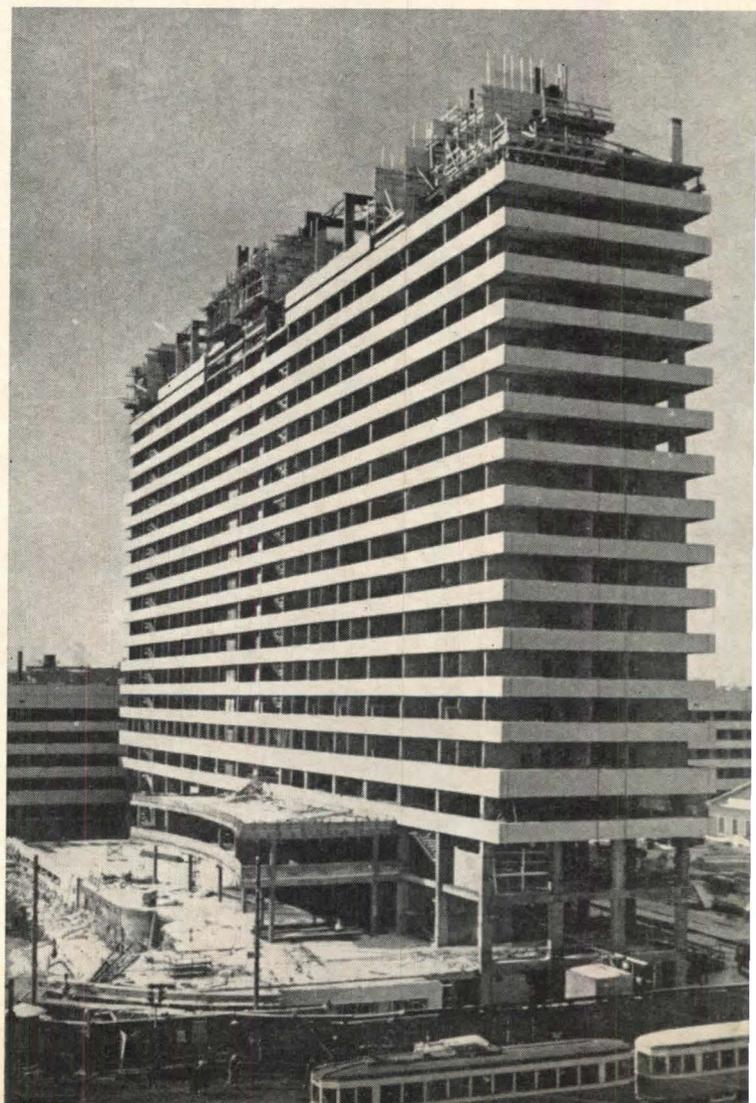
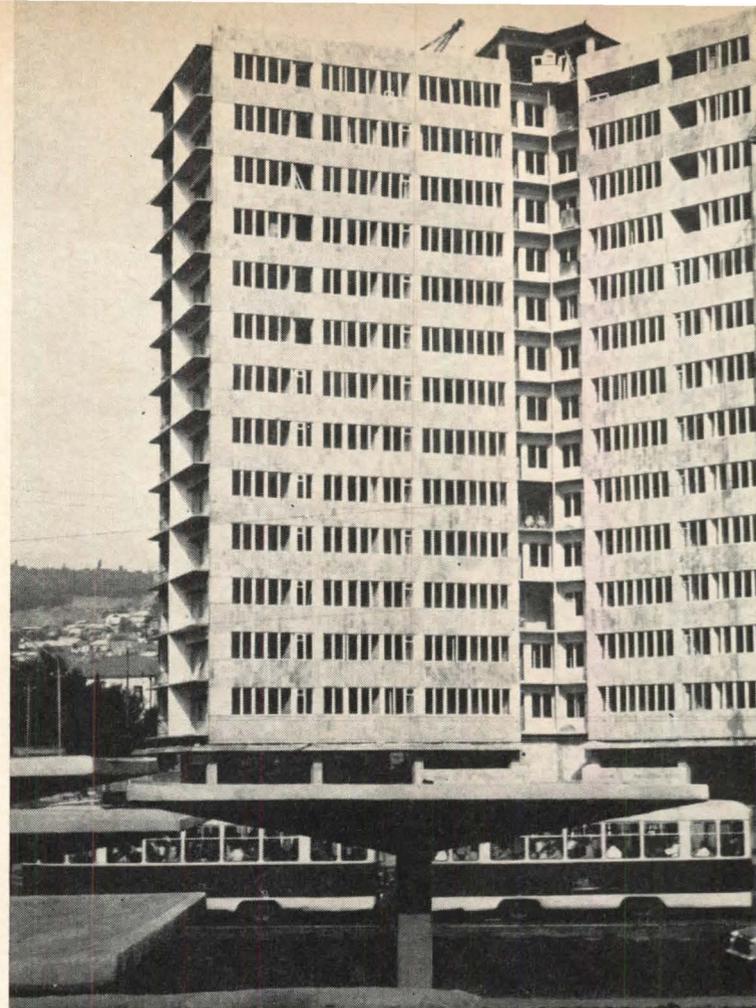
called Togliatti after the late Italian Communist leader, which already has several chemical plants. Its goal is 500,000; it had a population of 150,000 in 1966. For comparison, the privately undertaken new town developments in the United States aim, on the average, for a population of 60,000 to 100,000.

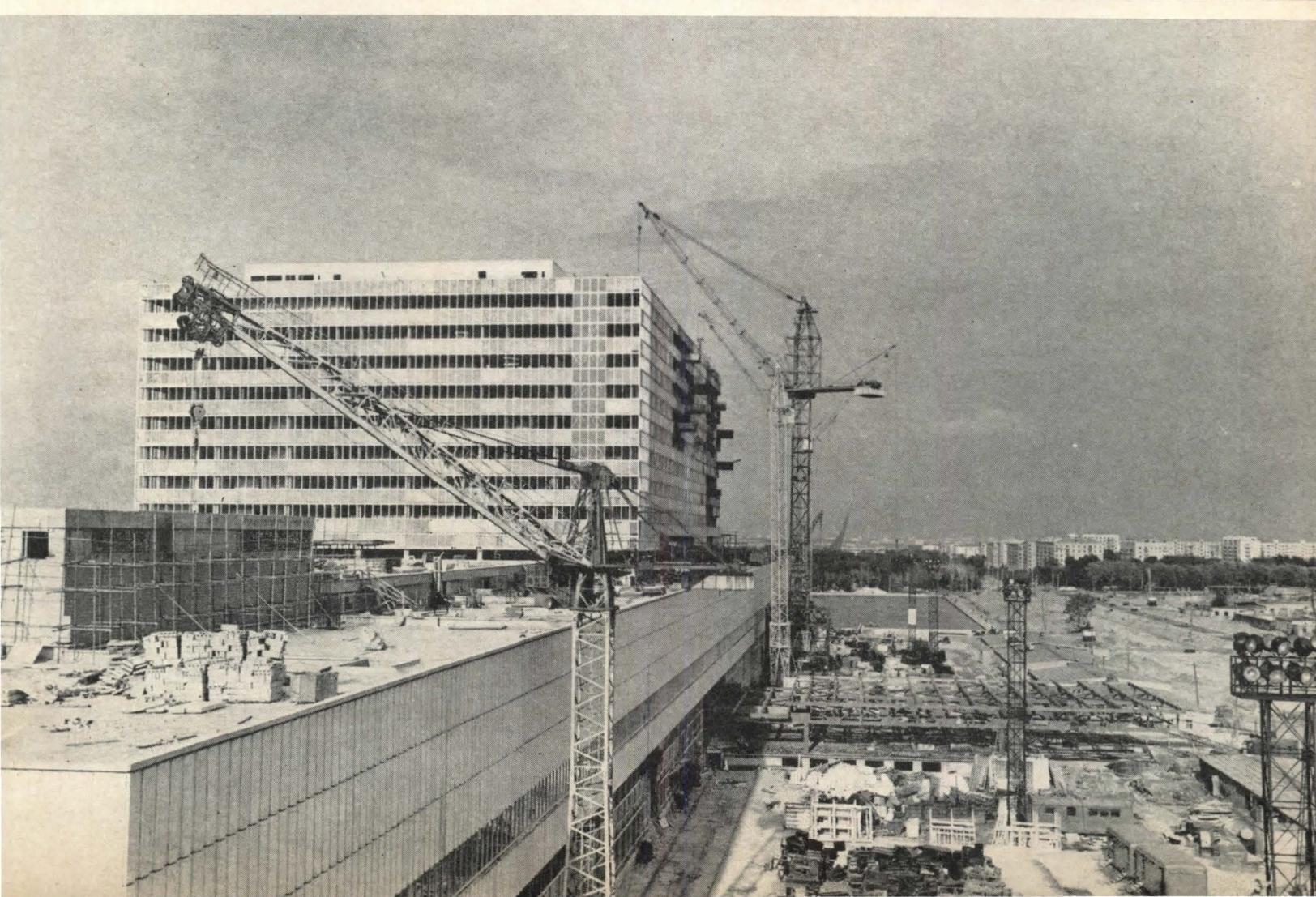
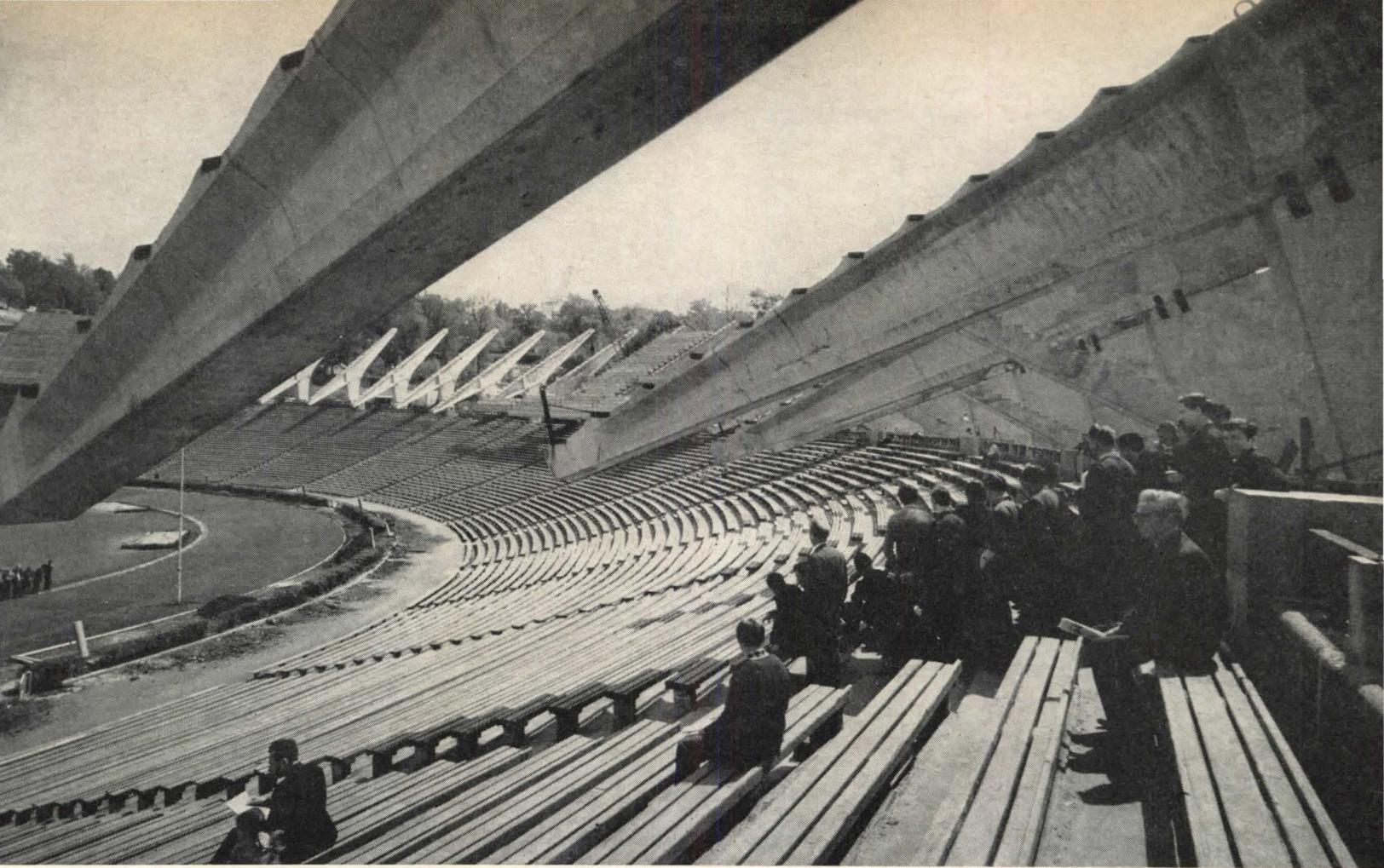
Soviet planning has the curious quality of a time machine; here are the planning theories and pet practices of 30 years ago, perfectly preserved, as if no lessons had been learned.

Here are the immaculate models with their orderly arrangements of buildings, looking so clean and Utopian on a tiny scale, that enchanted planners of the prewar generation. Here are the repeated slabs, so elegant on a table top, so monotonous in execution.

Some younger Soviet professionals know this. There was criticism of Norlisk, for example. But there are still legions of planners who consider those vast avenues and overspaced housing blocks an ideal answer to crowded, reeking substandard buildings on shabby streets. There is little interest in the picturesque among those to whom it means no plumbing and the decay and discomforts of worn-out buildings. To them, sterile planning is a beautiful alternative.

Top row: 14-story, three-winged apartment tower (one of several) on the Oktamberyan Avenue in Yerevan, capital of Soviet Armenia; and the huge stadium in Kiev, with a cantilevered roof structure of concrete. Bottom row: (near right) the 1,100-room Sovetskaya Hotel in Leningrad. When completed, it will be 18 stories high, the tallest in the city. (Far right) the first section of the U.S.S.R. TV Center in Moscow. Located near the new TV tower (page 34), this section of the center will be completed this year.





Technologically, Soviet building now leaves much of the world behind. While others talk of the need for a way to meet the fantastic building projections of the next 50 years, the Russians have developed the techniques of mass production. The West emphasized the exploration of other esthetic and urban problems—of human scale and community coherence, for example, and the quality of the environment. Comparatively, these Western solutions are one-of-a-kind, art collectors' items rather than practical answers to the super-scale of today and tomorrow.

The United States is the bastion of creative individualism, or architecture for art's sake. Creative individualism is "the cult of the personality" in the Soviet Union; its probing and frequently critical explorations are considered to be against the general interests of the state. Art is warped into ideological service. The two fields that are the most purely creative and individualistic, art and literature, have suffered most.

Architecture, since it has legitimate, intrinsic social purpose, has not suffered in the same way. Soviet architects agree that their primary task is the development of housing to alleviate a desperate social need. In their common preoccupation with this

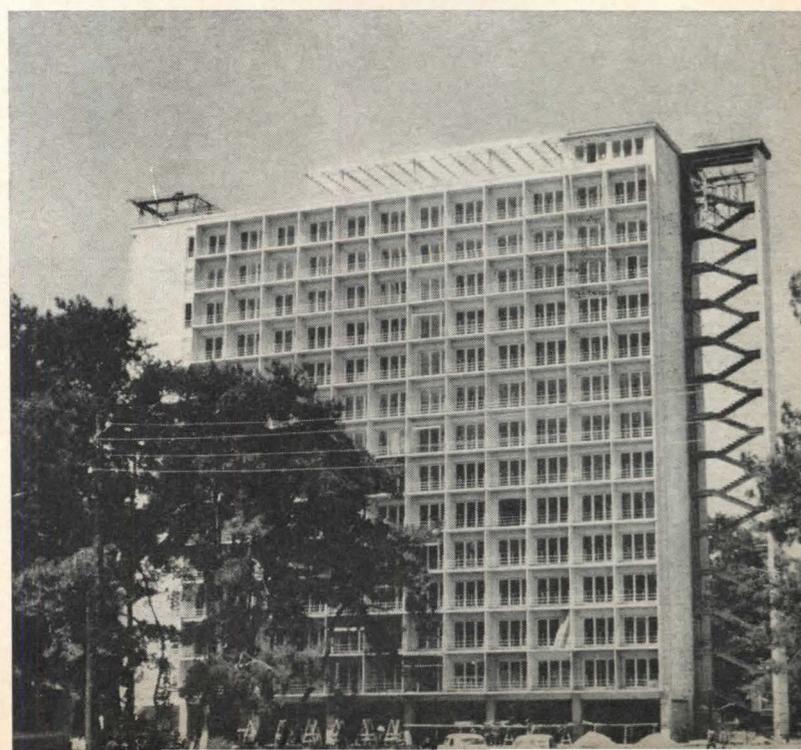
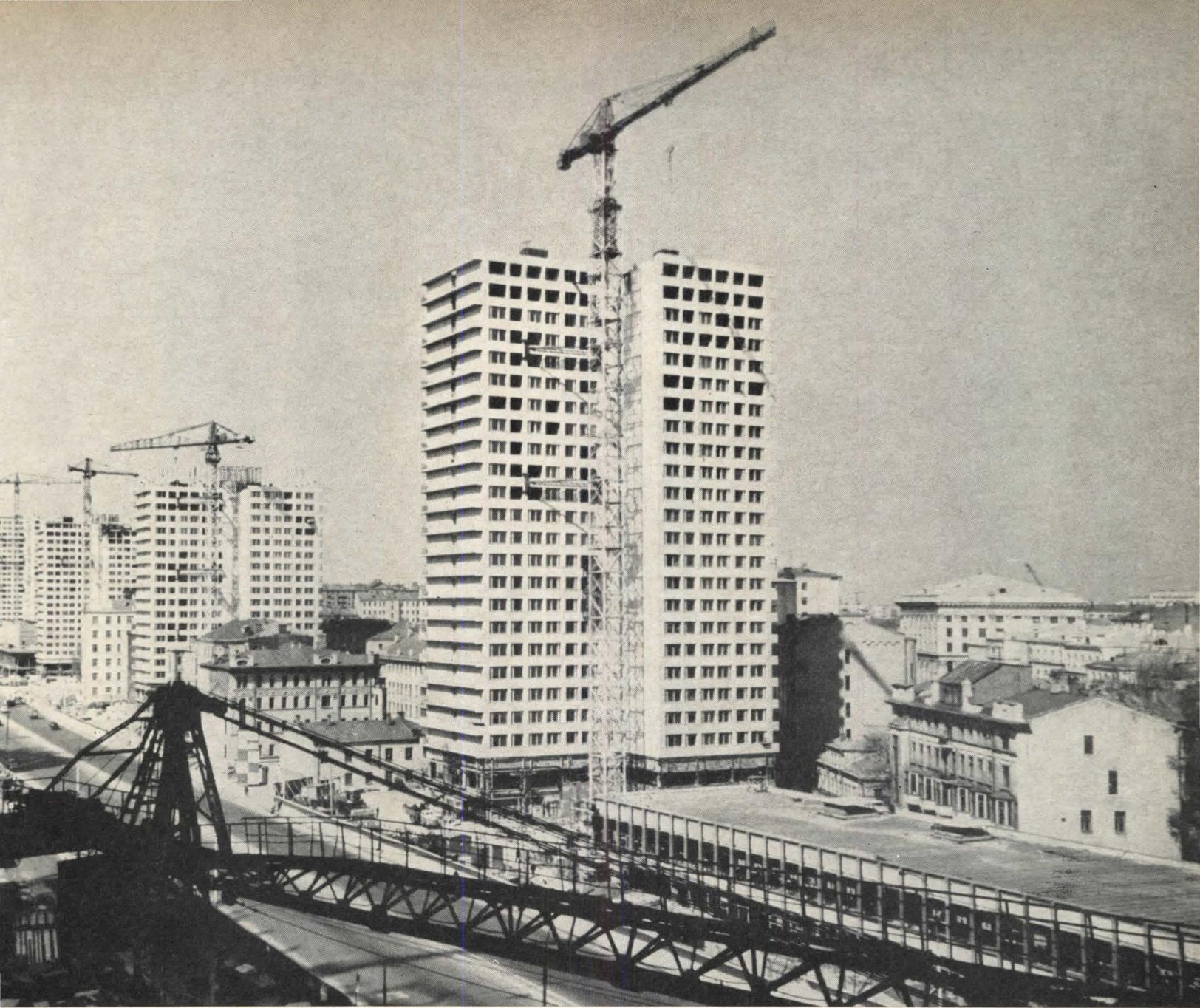
social role they are less concerned with the fact that architecture has been repressed as an art in the past, as it was when Constructivism lost official favor in the 1930s and during the later Stalinist period. It has since been released from those restraints with a totality unknown to painting or sculpture. The fact that it is now moving toward a new esthetic level—in a sense coming full circle from the aborted modernism of the 1920s to the modernism of the 1960s—and that this new style is based on Soviet technological achievements has a genuine significance.

The architecture of the 1960s, therefore, is no longer to be pigeonholed with art and culture. It is an art form re-fused in the fires of technology for the most urgent contemporary uses. The Soviet Union knows this, even when the product comes apart at the seams. What it has produced depresses the Western visitor with its uniformity. But its present norm is better than much of Western production, particularly technologically, even if it is still below the best Western design. Esthetically, it is improving all the time. The U.S.S.R. is moving faster than any other nation on one of modern building's most important frontiers. It has helped redefine architecture in the 20th century.

Top right: new structures along the Kalinin Prospekt near the center of Moscow are a mixture of apartments, office buildings, and stores. Bottom row: (near right) the Palace of Sport in Alma-Ata; (center) a new department store on stilts in Tashkent, in the Uzbek S.S.R.; and (far right) one of several highrise buildings in the brand new resort town of Pitsunda on the Black Sea.

PHOTOGRAPHS: Pages 33, 34, 36, 38, 39 (bottom), 40 (bottom), Sovfoto. Pages 35, 37 (bottom), 39 (top), 41 (top, and bottom, left), J. Alex Langley, courtesy *Time*. Page 41 (bottom right), Garth Huxtable.





WHERE CAN YOU LIVE TODAY WITH SWIMMING POOLS, GOLF COURSES, RIDING STABLES, TENNIS CLUBS, 3,200 ACRES OF GREEN MEADOWS, WOODS, LAKES, STREAMS, HILLS FOREVER PRESERVED IN THEIR NATURAL BEAUTY, WHERE THE SYMPHONY CONCERT IS JUST A FEW MINUTES FROM YOUR DOOR, WHERE YOU CAN SWIM WARM WHILE YOU SEE THE SNOW FALL, WHERE YOU CAN CANTER OVER MILES OF EQUESTRIAN TRAILS BEFORE BREAKFAST, WHERE YOU CAN WORK AS BUTCHER, BAKER, CANDLESTICK MAKER, LAWYER OR INDUSTRIAL CHIEF, WHERE A SPEEDY LITTLE MINI-BUS WHISKS YOU FROM ALMOST ANYWHERE TO ANY PLACE ELSE IN THE CITY FOR ONLY A DIME, WHERE YOU CAN RENT, BUY OR BUILD AN APARTMENT, TOWN HOUSE, HOME OR COUNTRY PLACE, WHERE A GREAT CITY'S EXCITEMENT IS BEGINNING TO HAPPEN IN THE MIDDLE OF HISTORIC ESTATE COUNTRY, WHERE YOU CAN WALK YOUR HOUND IN THE WOODS OR HUNT PHEASANT, QUAIL OR DUCK IN A GAME PRESERVE, WHERE YOU CAN STROLL DOWNTOWN TO GO SAILING, WHERE TOMORROW YOUR CHILDREN WILL BE EDUCATED IN THE NEWEST SCHOOLS, JUNIOR COLLEGE AND UNIVERSITY, WHERE YOU CAN GET A PASTRAMI ON PUMPERNICKLE AT TWO IN THE MORNING FROM THE DELICATESSEN, WHERE SHOPS, THEATRES, RESTAURANTS WILL BRING YOU THE BEST THE WORLD HAS TO OFFER, AND WHERE YOU'LL LIVE LIKE YOU EARNED \$5,000 A YEAR MORE THAN YOU DO?



**ONLY IN
COLUMBIA,
THE
NEXT
AMERICA**

The multipart question and its boldly prophetic answer on the opposite page (both reproduced directly from an advertisement which appeared last month in Baltimore and Washington newspapers) are Columbia's way of announcing that it is open for business.

Columbia is, of course, the new town that James W. Rouse has been nurturing, planning, and developing for the past five years in Howard County, Maryland, midway between Baltimore and Washington. Only its first stage of development (bottom right) is nearing completion—only the embryo of a downtown (photo opposite), the beginnings of the first village (following pages), and assorted other facilities and services amounting to less than a tenth of the planned total. But it is enough to give credence to the claims made in the ad (allowing for a certain amount of poetic license) and to provide strong clues about how Columbia is fulfilling the goals—economic, social, and physical—established for it.

At Columbia, the three goals are being pursued in a unique kind of way that sets it apart from the hundred-odd new towns and so-called "new towns" that are currently in various phases of development in the U.S. First of all, Rouse as a private developer has set out to build from scratch a self-sufficient new community for 100,000 people. Second, he has assembled a parcel of land large enough to accommodate it comfortably. Third, he has secured ample financial backing. Fourth, and most important, he has developed a physical plan that embodies the contribution not only of planners and urban designers, but of experts in such fields as sociology, psychology, government, recreation, economics, education, health, housing, transportation, and communication.

Rouse, a successful mortgage banker and shopping center developer, believes there can be an alternative to what he has called "the vast, formless spread of housing, pierced by the unrelated spotting of schools, churches, and stores" that heretofore has char-

acterized most urban expansion. But he also believes that such an alternative cannot be produced by high ideals and good intentions alone. Hence Columbia's intensive exploration into the needs and wants of people (carried out by a "work group" of experts in the behavioral sciences and other fields), and its attempts to express these findings in planning and design terms.

Rouse's desire to provide a social and physical alternative to the "formless spread" represents only half of his motivation for Columbia. The other half is a desire to make a profit. The three goals, he feels, are not only compatible, but inseparable. He reasons that, since chaotic suburban sprawl has reaped handsome profits for private developers, the organization of these forces into a planned community should in the long run, by cutting out waste and duplication, produce even greater profits.

The simultaneous pursuit of the three overriding goals has pervaded, and continues to pervade, every step of Columbia's development. The large staff that Rouse has assembled (most of whom act and talk more like disciples than employees) seems totally committed to the idea that the goals can be pursued side by side without any of them being essentially impeded.

Guarded optimism

At this stage in its history, when scores of other new towns are experiencing financial troubles, Columbia's economic goals are reported to be progressing satisfactorily (though it is much too early to predict success for a project that will continue to develop for the next 15 years or so). Sales and rentals of the first houses and apartments are running ahead of schedule, as is Columbia's industrial development program, which constitutes an essential part of the town's economic base. On the other hand, Reston, Virginia (to name one example of a new town in trouble), is lagging far behind in home sales—so much so that Robert E. Simon Jr., its developer, has had to turn over control to his financial backers.

Columbia's staff people tactfully refrain from making direct comparisons between their town and Reston, but the implication is clear that they feel Columbia can succeed economically where Reston, to date, has not.

A major difference is one of location. Columbia's site lies smack astraddle the Washington-Baltimore corridor, the fastest growing metropolitan area in the east. Columbia is there because an exhaustive search of the entire eastern seaboard revealed that it was the most promising spot for a new town. In contrast, Reston lies halfway between Washington and Nowhere. It can attract potential residents from only one, not two, metropolitan areas.

Taste vs. sales

A second difference between the two new towns is not as neatly definable as the first, but it is just as important. It involves the social and physical aspects of new-town development—including such imponderables as public taste, marketability, and good design.

At Reston, Simon wanted to introduce the best of modern architecture, as well as good planning principles. He hired prominent architects and gave them a high degree of freedom in designing Reston's first phase of development, Lake Anne Village. Though the results have not been universally praised by architects and critics, most would grant that Reston is esthetically well above the average. The only trouble is, the handsome townhouses are not selling.

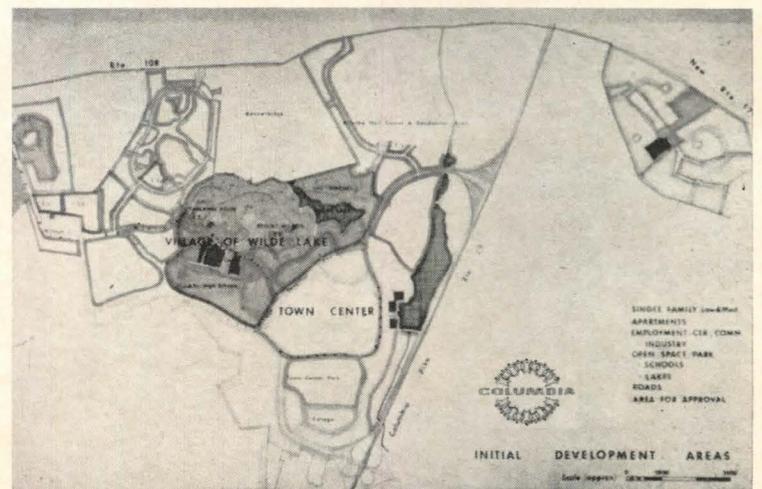


Gulf Oil Co., which has taken over control of Reston in an effort to save its \$15 million investment, is having second thoughts about design. Reston's new operating head, Robert H. Ryan, recently cited "heavy emphasis on contemporary design" (example above) as one of the causes of the new town's problems. "Not everyone likes it," he observed. "You have to listen to the market. We must offer greater variety and greater choice."

It would be easy, then, to dismiss Reston as a noble but unsuccessful experiment in bringing Good Design to the ungrateful middle class. But it's not that simple. If Reston were situated where Columbia is, in the midst of a heavy growth area, its sales rate might have been good enough. Who knows?

The question is not likely to be resolved at Columbia—judging by most of the houses, townhouses, and other buildings erected thus far. There is little at Columbia to strike joy in the hearts of design sophisticates.

At Wilde Lake Village, the first of ten villages to be developed at Columbia around the downtown core, the most conspicuous feature right now is the tract houses which are being

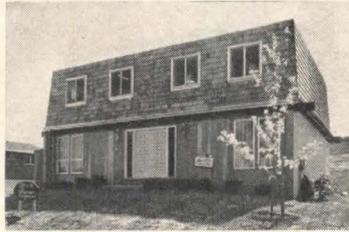


put up by speculative builders on land purchased from the developers (three examples at right). Most of their products look, on the surface at least, very much like the "vast, formless spread" that Rouse has inveighed against.

But there is more to Columbia than meets the eye. At Reston, esthetic ideals were given priority at or near the top of the scale, making it fair game for criticism on that basis. At Columbia, they are considered only one of a number of ingredients that must go into the making of a community for people.

Many of these ingredients, according to Morton Hoppenfeld, Columbia's director of planning and design, were derived from the contributions of the 15-member, multidisciplinary work group which was set up specifically because, in Rouse's words, "there is absolutely no dialogue in the U.S. today between the people who have developed knowledge about people—the teachers, the ministers, psychiatrists, sociologists—and the people who are designing and building our cities."

Because of the work group's participation, Hoppenfeld claims, Columbia will be a much different place than it would have been had the planners and designers acted solely from "our own biases" of what a good city should be. "The work group," Hoppenfeld says, "helped us to realize that the institutions and activities which go on at all levels—interpersonal, interfamily, intergroup, etc.—are fundamental to the quality of life, and fundamental in establishing the



form of a city. We had a lot of plan ideas, based on inadequate rationales, but the work group gave us a proper frame of reference. We became much more sensitive to the social purpose of planning."

It was the work group's deliberations that led to what Hoppenfeld has called Columbia's "pivotal planning decision": to acknowledge learning as a basic foundation for a human community. In physical terms this

meant schools, and at Columbia schools will become the focal point of each level of community life. For each neighborhood (300 to 500 families) there will be an elementary school, and for each village (3,000 to 5,000 families), a secondary school—all of them within easy walking distance of the areas they serve.

"But we knew," Hoppenfeld says, "that schools were not sufficient in themselves and, in thinking through other human needs, we made the schools the hub of a complementary set of other community facilities and services." Thus each neighborhood complex will contain not only an elementary school, but a day care center, a small store with a snack bar, a meeting room (which Hoppenfeld calls a "neighborhood front room"), a swimming pool, a park, and playgrounds. At the village level, the secondary school will be the focal point of the village center, containing a shopping mall, multipurpose community building, public library, swimming pool, tennis club, and other facilities.

Columbia is not, and probably will not become, an incorporated city. Its schools will be built and operated by the Howard County Board of Education which, says Hoppenfeld, has responded eagerly to a number of educational innovations proposed by the work group. As one result, the board has abandoned its former 6-3-3 grouping of school grades and adopted a new 5-3-4 arrangement. It has received a Ford Foundation grant to explore ways in which design can contribute more to the learning process.

Hoppenfeld also cites the new town's public transportation system as an outgrowth of the work group's recommendations. Minibuses (above, left) already operate on separate rights-of-way in Columbia. Eventually, they will link the villages to each other and to the downtown. Some 35 per cent of the population will live within a three-minute walk to a bus stop.

At the cultural level, work-group recommendations have led to a number of decisions that might have been overlooked oth-

erwise, Hoppenfeld says. The Merriweather Post Pavilion (page 47), a handsome, open-sided theater and concert hall tucked into a hillside in a 40-acre, thickly wooded downtown park, is the first public building to be completed at Columbia because it was considered important to establish cultural interest from the beginning. When the pavilion opened last July, only a few pioneering families had moved into Columbia, but more than 75,000 people have since attended the concerts and other performances held there.

Columbia is now laying plans for a downtown cultural center, where persons engaged in all the arts will live and work together in the kind of close interrelationship that is lacking in most urban areas. The center will contain legitimate theaters, movie houses, art galleries, studios and apartments, shops, and other art-related facilities.

Interfaith ventures

The same kind of "togetherness" philosophy is being applied to the community's churches. A cooperative ministry, made up of representatives of Protestant, Catholic, and Jewish faiths, has been set up to plan and build the churches and to work up cooperative ventures for serving the religious needs of the citizens. The church group will also sponsor the first middle-income housing project planned for Columbia—a total of 250 units to be scattered in small groups throughout the villages.

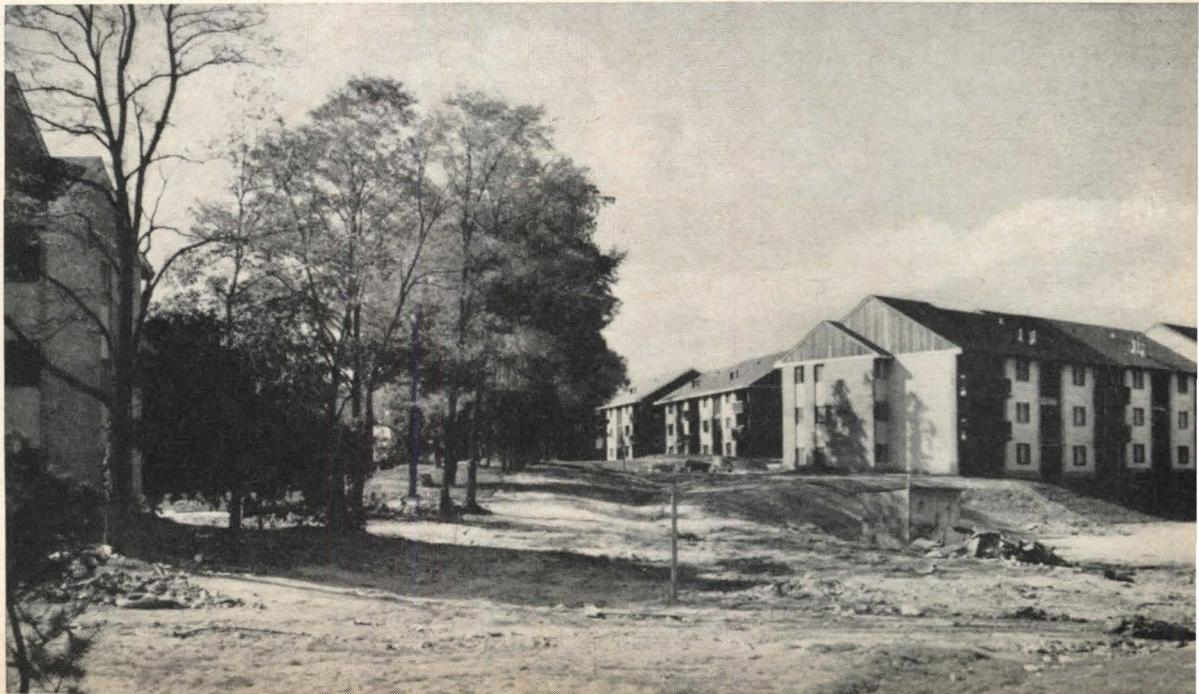
These and literally dozens of other social and institutional activities are being pursued at Columbia. And it is within this context, and within the overriding view that a city is a system of interlocking parts, rather than a collection of separate organisms, that the new town's physical form—the planning, architecture, and urban design—is being carried out.

Though Hoppenfeld acknowledges that the architecture of Columbia is not likely to bring raves from the esthetes, he personally thinks most of it is "damn good." It is, he says,





The core of Columbia's Wilde Lake village center (plan opposite) is a two-story shopping arcade grouped around a landscaped plaza (top). Designed by Cohen, Haft & Associates, the buildings (of brick with tile roofs) contain a supermarket and shops on the lower level, with offices above. Two clusters of midrise apartments have been developed at Wilde Lake by the Rouse Co. The Cove (center), designed by Joseph B. Nelson & Associates, is a group of six white stucco and brick structures fronting on the man-made lake. Its rentals range from \$150 for one-bedroom units to \$320 for three bedrooms. On a ridge above the lake is Bryant Woods (right), a development of nine brick buildings around a common, designed by Collins & Kronstadt. Its rentals are more modest, ranging from \$135 to \$210.



"well conceived in terms of social purpose, responsive to the functional requirements, and responsive to the budget." (The budget, in most cases, is rock bottom, but Hoppenfeld says most of the buildings would have been "fundamentally not much different" if more money had been available.)

"People should be able to identify with a place," Hoppenfeld says. "The total environment should be responsive to ordinary human interest. Our predominant attitude is toward people. Another factor is marketability. We have tried to judge what people really respond to, when they have a choice—what will turn a positive sensual and emotional response. That's why it came out the way it did."

Not even the design of the speculative houses particularly bothers Hoppenfeld. Though he wishes they were better, he feels that their integration into Columbia's overall planning scheme is more important than the details of their design—and he points out that they are selling well. Besides, he claims, they are better looking than most of the houses being put up elsewhere by these same builders. The Columbia staff has worked closely with the builders in an effort to upgrade their design, Hoppenfeld says, "but we could only go so far." He points out that the first builders were participating in an untried venture, and couldn't be expected to change their tried and true methods drastically. "Now that the houses are selling well" he says, "we are in a much better position to demand better design from the builders."

Design dialogue

The staff, however, is in a position to control directly the design of all the other elements at Columbia. A few of the structures, such as the bus shelters and the dam at Wilde Lake (above right), have been designed in-house, but in most cases private architects are called in. Hoppenfeld says that he and his staff "practically design it before we give it to them." Not all the architects have been happy with



the arrangement, and Hoppenfeld admits that "we were not the best of clients" in the early stages. "We were new at it, and we had strong ideas about design." But now, he says, by carefully picking architects who can "enter into a dialogue with us, the end product should be better than we could have done alone."

Whatever the results, Columbia's planners and designers feel that those who criticize the town on the basis of esthetics alone will be overlooking a whole spectrum of more meaningful criteria. Last month, addressing a group of visiting planners, William E. Finley, Columbia's director of development (and himself a planner), spelled out the criteria that have been set for Columbia:

"To absorb population growth, metropolitan overspill. To preserve portions of the countryside; to set aside land for a wide range of housing types and for commercial, industrial, educational, cultural, institutional

development so critical in the achievement of a well-rounded community.

"To set aside permanent open-space land for 'the lungs of the city.' To provide opportunities for new institutions that will better meet human needs than the older established ones.

"To establish communities that provide for a high degree of human communication, for freedom of movement, freedom from fears, freedom from the depressing aspects of the older cities.

"To provide the technical and legal framework which assures continued maintenance of the community. To stand off the forces of blight and assure the prevention of slums.

"To reduce the journey to work. To allow a person to live and work in the same community with sufficient residential and job mobility to allow vocational growth.

"To provide a wide range of community facilities immediately, as needed, not years after, when a whole generation has grown without them.

"To provide the ability to get around; to avoid the slavery of the second car, of the 'mother chauffeur'; to allow a system of transportation from the first day for the children, the aged, the infirm, the mother-in-law.

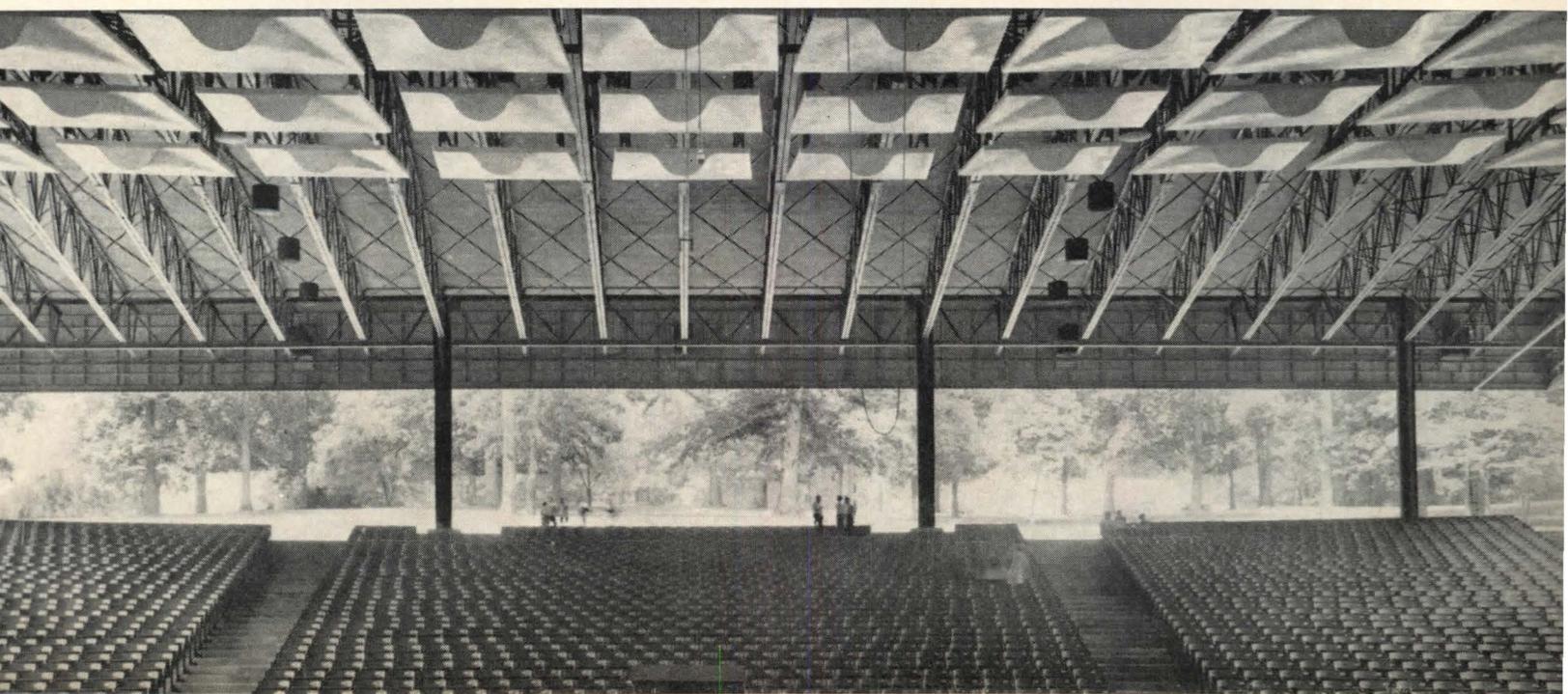
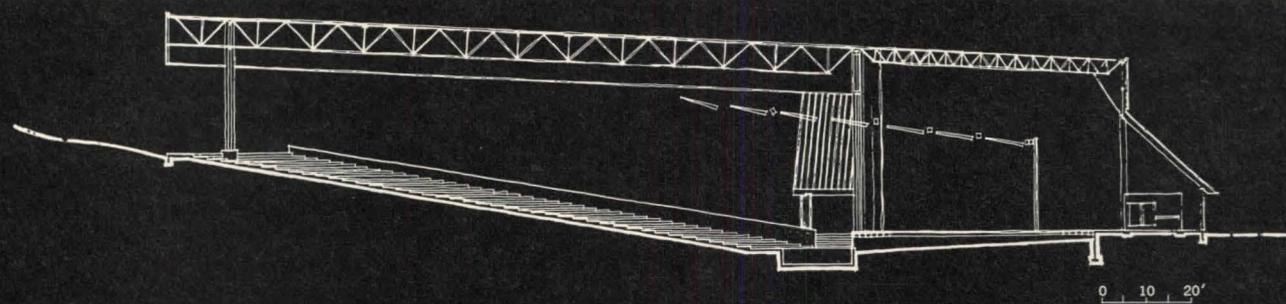
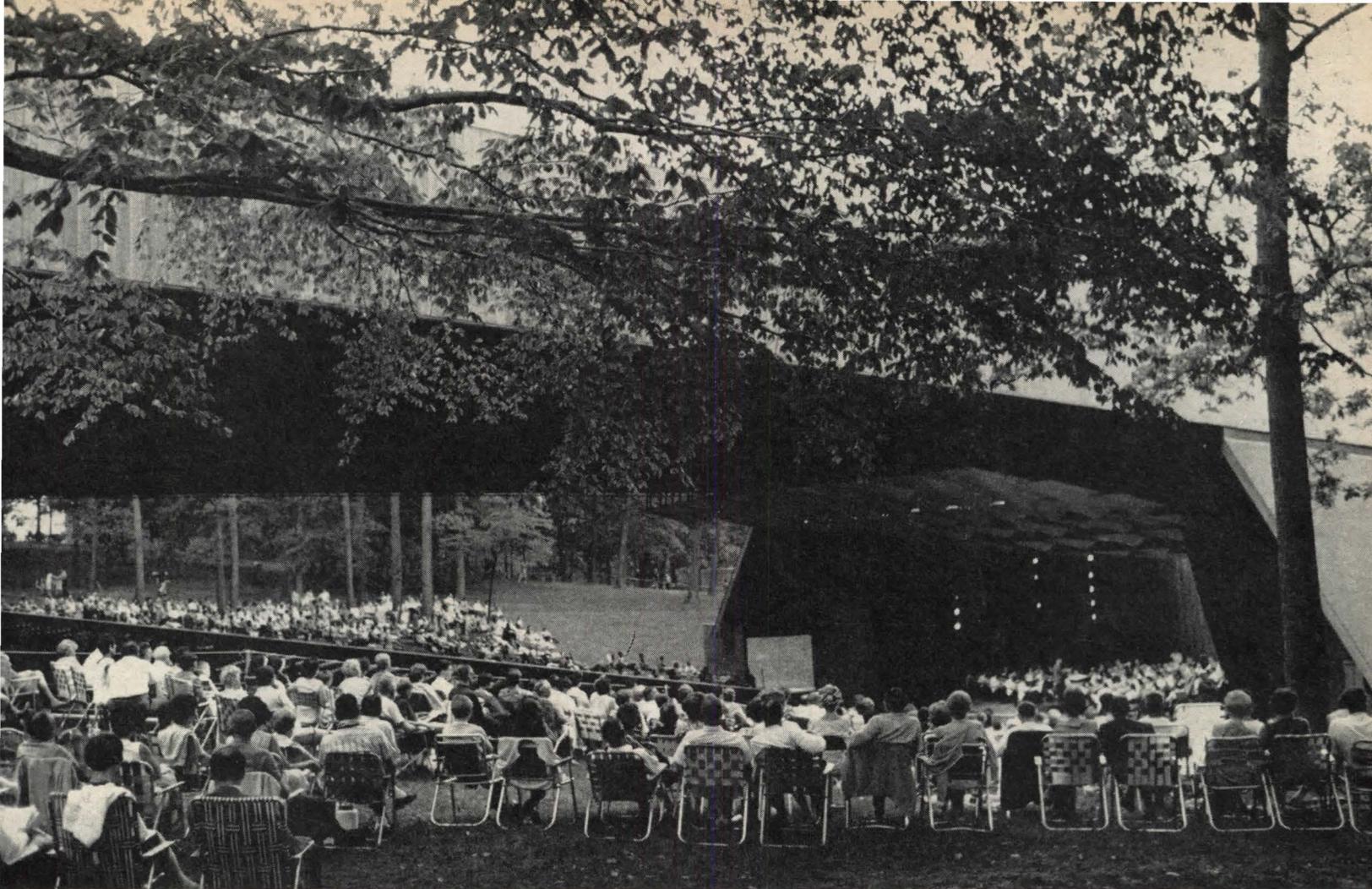
"To achieve an economic balance whereby there is sufficient nonresidential assessed valuation, which under our property taxation system must pay the taxes essential to serving the residential areas with their school children and an ever-increasing demand for municipal services.

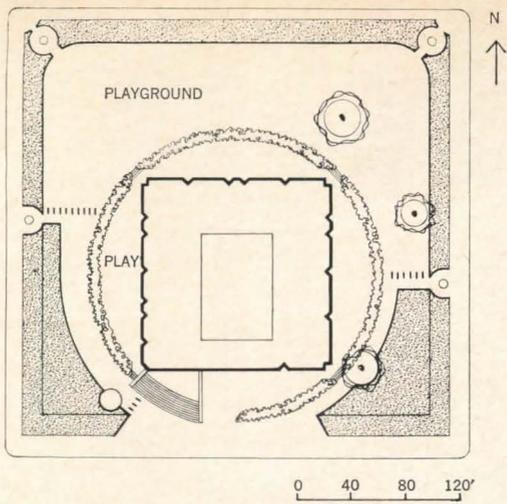
"To achieve a democratic social balance, to provide a wide range of housing by type, style, and price. Housing open to all. Housing available to every person employed in the community."

To Columbia's planners and designers, these are not just vague ideals to be wished for, but specific goals to be systematically pursued. It will take a lot more time, a lot more buildings, and a lot more people before the answers are known.

Columbia will be a fascinating place to watch over the coming years.—JAMES BAILEY

Columbia's most successful structure to date, in terms of architecture, function, and popularity, is the open-air Merriweather Post Pavilion of Music. It rests in a natural "dish" among the woods of a downtown park. Designed by Gehry, Walsh & O'Malley, the pavilion seats 3,000 in fan-shaped amphitheater style under an overhanging roof, plus another 4,000 under the trees outside. The 35,000-sq.-ft. roof structure is sheathed in douglas fir and supported on six columns, four at the rear of the pavilion and two in front of the stage housing (see section). The roof employs an exposed system of joists which span 150 ft. with 15-ft. cantilevers supporting the entire roofing area. Music critics of Washington, Baltimore, and New York newspapers have admired its acoustics, which were developed with Christopher Jaffe & Associates as consultants. PHOTOGRAPHS: Pages 42, 44, 45, 46, George Cserna. Page 43, Gil Amiaga. Page 47 (top), Robert de Gast; (bottom), Max Araujo.





THE SCHOOL THAT WILL VANISH



Except for the broad, fan-shaped stair at its main entrance (below), the Lincoln Elementary School in Columbus, Ind., is scheduled to disappear in about five years. By that time, predicts Architect Gunnar Birkerts, the trees that circle the square structure will have become a solid green ring, and the site will have been "given back to the city."

The six schools built previously under Columbus' unique program of commissioning noted architects (Dec. '65 issue) have all been near the edges of the

little city, on generous, typically suburban sites. This is the first one to be built in the relatively dense downtown area. Its two-acre site would be small, by any standard, for a 390-student school, but it was also called upon to double as a public park.

The whole area from the walls of the school out to the street is designed to be useful all day, every day, for adults as well as children. There are no fences, but there are clearly defined areas for different activities.

Next to the building are paved play areas for smaller children,

separated by the ring of trees from the larger play space on the north half of the site. This outer playground is separated from the street by low banks, which keep all but high-flying balls from going out into the street. (There is not enough room for softball, anyway.)

Pedestrians can cut across corners of the site on curving walks, and stop to rest on the retaining walls along them. At certain points, rows of concrete bollards separate walks from play areas, without actually barring passage.

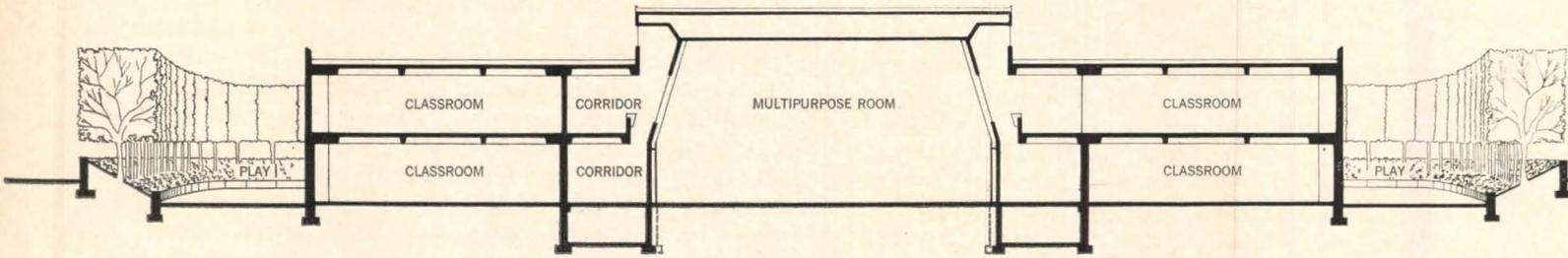
The variations in ground level

have allowed for direct entrances to both floors of the school. The sweeping stair to the upper front entrance is actually the roof of a large bicycle shelter at the entrance below. It can also serve as a rudimentary outdoor stage.

The only service entrance is a double door in the front wall (below), located at the foot of a ramp that serves equally well for bicycles, wheelchairs, and trucks.

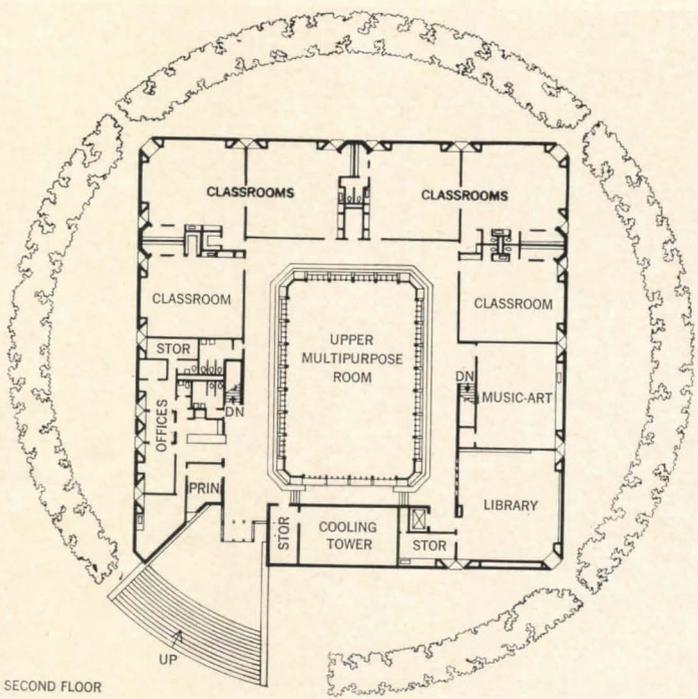
Since the building had to be compact, and the school program called for summer classes at this central location, air con-





SECTION A-A

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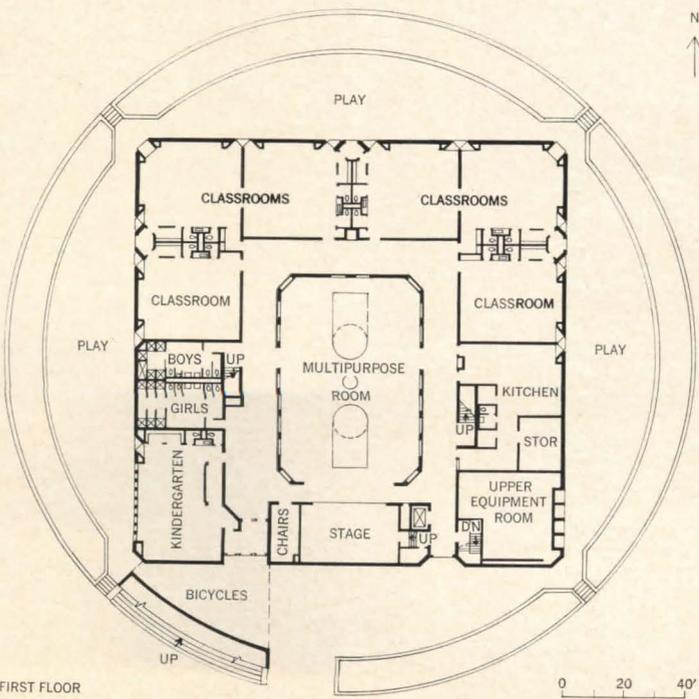


SECOND FLOOR



From the second-floor corridor (above), students can look over a high, broad parapet into the multipurpose room (right) or down through a light well into the first-floor corridor (below). The tongue-and-groove birch walls of the

independent multipurpose room structure contrast sharply with the exposed concrete and brick on the opposite side of the light well. The laminated wood framing of the room (right) is spaced to fit folding table-and-bench units.



FIRST FLOOR

0 20 40'



ditioning was essential. It was decided to make the building thick-skinned, with a minimum of glass area.

It was then decided to heat the school electrically. Analysis showed that, at the prevailing rate for "all-electric" buildings in Columbus (about 1.2 cents per kilowatt-hour), savings on boiler installation, insurance, repair, replacement, and custodial help made electricity no more expensive than other fuels. In this case, the saving in building volume, aside from the economy involved, was critically important.

Like the site, the interior is organized in concentric rings. The cafeteria-gym-auditorium is at the core, with corridors ringing it on two levels. Classrooms and offices are ranged along the exterior walls.

Because it is centrally located, and because the future school population of downtown Columbus is hard to predict, the Lincoln School was designed to accommodate both regular classes (kindergarten through sixth grade) and special classes for the mentally or physically handicapped. Since most of the class-

rooms have private toilets, and half have outside doors, the proportion of rooms used for special classes (or lower grades, which have similar requirements) can be varied to meet the needs of the school system.

Building within a building

The outer portion of the building has a structural system of ribbed concrete slabs, supported on the outer and inner walls of the classrooms, and cantilevered over the corridors. The multipurpose room has an independent structure of laminated wood

beams and laminated columns.

A clerestory between the two roof systems—a band of glass only three ft. high—has been used ingeniously to light both the multipurpose room and the two floors of corridors around it. The light well below this clerestory has been fitted in without taking up any additional floor area; the second-floor corridor could be narrower than the lower one, which serves the multipurpose room. Visually, both corridors seem larger than they actually are. The clerestory itself occurs above the corridors, where tem-



perature control is not critical. (The corridors serve as return air ducts from the classrooms.)

Glass area in the exterior walls has been kept to a minimum by the use of an unusual design that allows adjoining rooms to *share* a window. Almost every room has at least two corner "windows"—a total of 44 in all—yet only 32 of them shown on the exterior.

The device that accounts for this disparity is a triangular box which has glass on both the room side and the outside, so that it forms an insulating chamber (see detail plan at right). One of the

interior sides of the chamber is hinged, so that it is accessible for cleaning and for use as a display case. The classroom doors of the lower level are similarly paired around vestibule airlocks.

The angled corners of rooms inside form V-shaped niches in the exterior wall, into which the triangular window chambers project. The resulting composition of planes and shadows greatly increases the visual impact of the small, widely spaced windows.

The walls are clad in a dark, reddish brick, with dark mortar joints—the same materials used

by Harry Weese on a junior high school in Columbus (Nov. '60 issue) and chosen for a library by I. M. Pei, now being built only one block from this school.

A mantle of green

Even with the irregular patterns of niches and windows, the school's walls appear severely blank. They were designed, after all, to be hidden behind a ring of trees. The small-leaf lindens chosen for this ring will develop a dense, interlocking branch structure and can be trimmed to precise shapes. Even in winter,

when light will pass through the ring into the inner circle of play space, the branches will form the visual walls of the school.

All of the schools built recently in Columbus have joint park-playgrounds, planned in collaboration with the city parks department. The Lincoln School project, however, is the first in which the building itself has been designed as part of the park. When the last linden leaf is in place, in the spring of about 1973, the school will appear to be a grove of trees in a park.

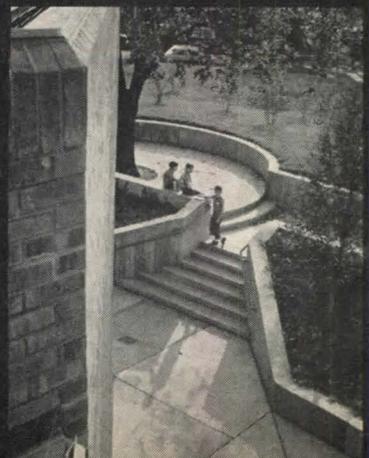
—JOHN MORRIS DIXON

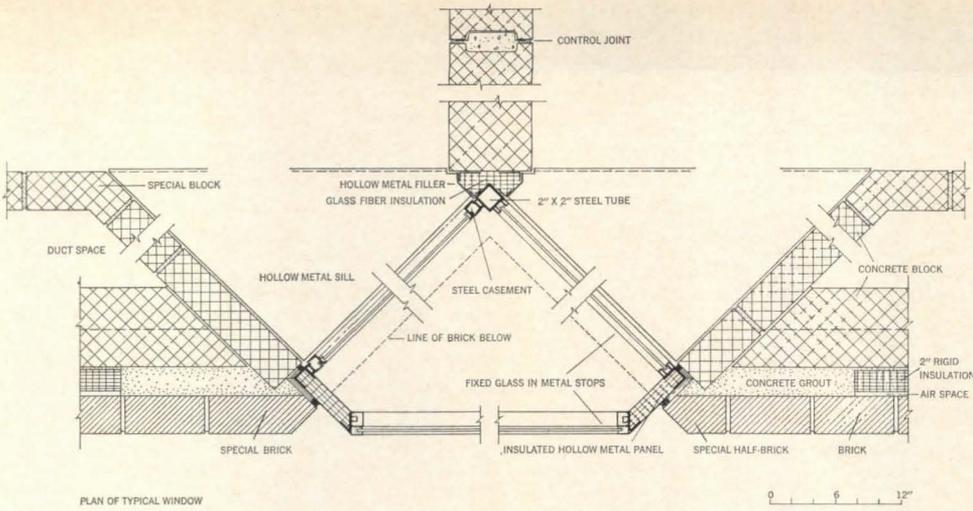


The classroom window (above and drawing) sharply reduces sound entering the classroom from play spaces just outside (left). Sound transmission from room to room is slight, and room-to-room view is cut off by projecting duct enclosures (which also house pipes, vents, and roof drains).

Thin metal window trim and special angled bricks make the exterior walls very precise. Varied relationships between openings on the two floors add sculptural interest.

Special angled bricks are also used for the roofline coping (below). Beyond the corner of the building is a portion of the surrounding park with a raised sitting area around an existing tree.





FACTS AND FIGURES

Lincoln Elementary School, Columbus, Ind. Owner: Bartholomew Consolidated School Corp. Architects: Gunnar Birkerts & Associates (Harold Van Dine, associate for design). Supervising Architects: Sieco, Inc. Landscape Architects: Johnson, Johnson & Roy. Engineers: Holforty, Widrig, O'Neill & Associates (structural); Hoyem, Basso & Adams (mechanical). General contractor: Dunlap Construction Company. Site area: 93,000 sq. ft. Building area: 38,363 sq. ft. Maximum capacity: 392 students. Construction cost: \$816,953. Total cost (including site development, landscaping, furniture, equipment, and fees): \$1,071,199. PHOTOGRAPHS: Orlando R. Cabanban, except page 50 (bottom) and page 52 (upper right), John M. Dixon.



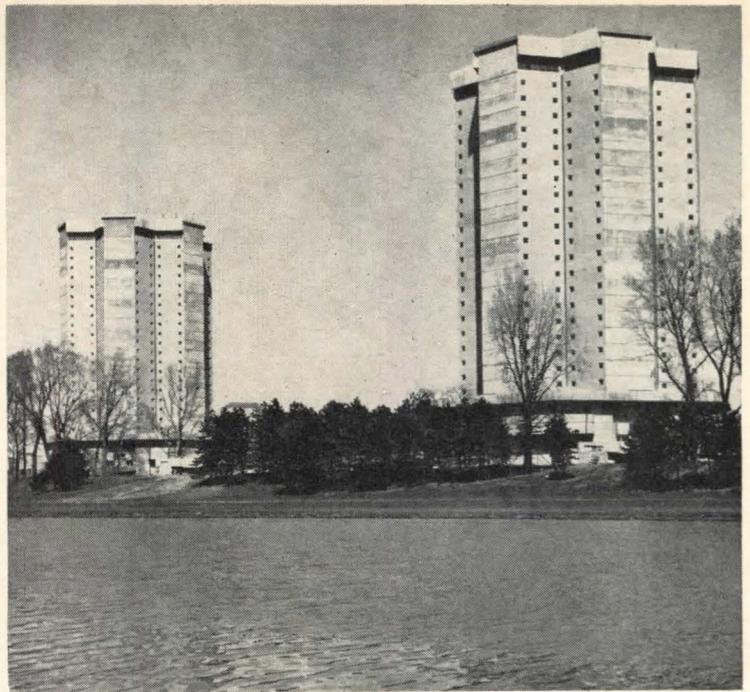


HEART OF A METROPOLIS

Scattered across a vast parking lot that was once part of downtown St. Louis are several ambitious projects, seen above in a view from the Gateway Arch. Strung out along Interstate Highway 70 in the foreground are (left to right): the Pet Milk headquarters, by Architect

A. L. Aydelott, nearing its final 15-story height; Stouffer's St. Louis Inn, by William Tabler, which will have a 28-story tower topped by a revolving restaurant; and the Gateway Tower office building, by Hellmuth, Obata & Kassabaum, which will rise 17 stories above its three-story, block-long base. In the

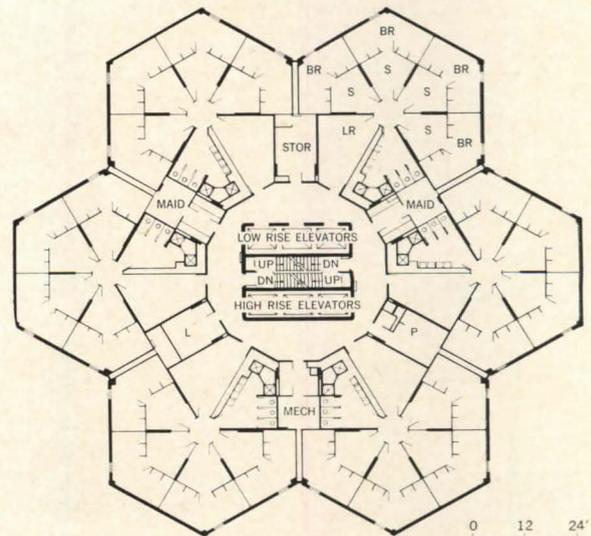
foreground is a lonely survival, the Old Cathedral. In the background is Busch Stadium, by Edward D. Stone, guarded by twin parking garages. The plot of the stadium is being prepared for the Spanish Pavilion from the 1964-65 New York fair (right), designed by Javier Carvajal with Kelly & Gruzen.



STALAG 67

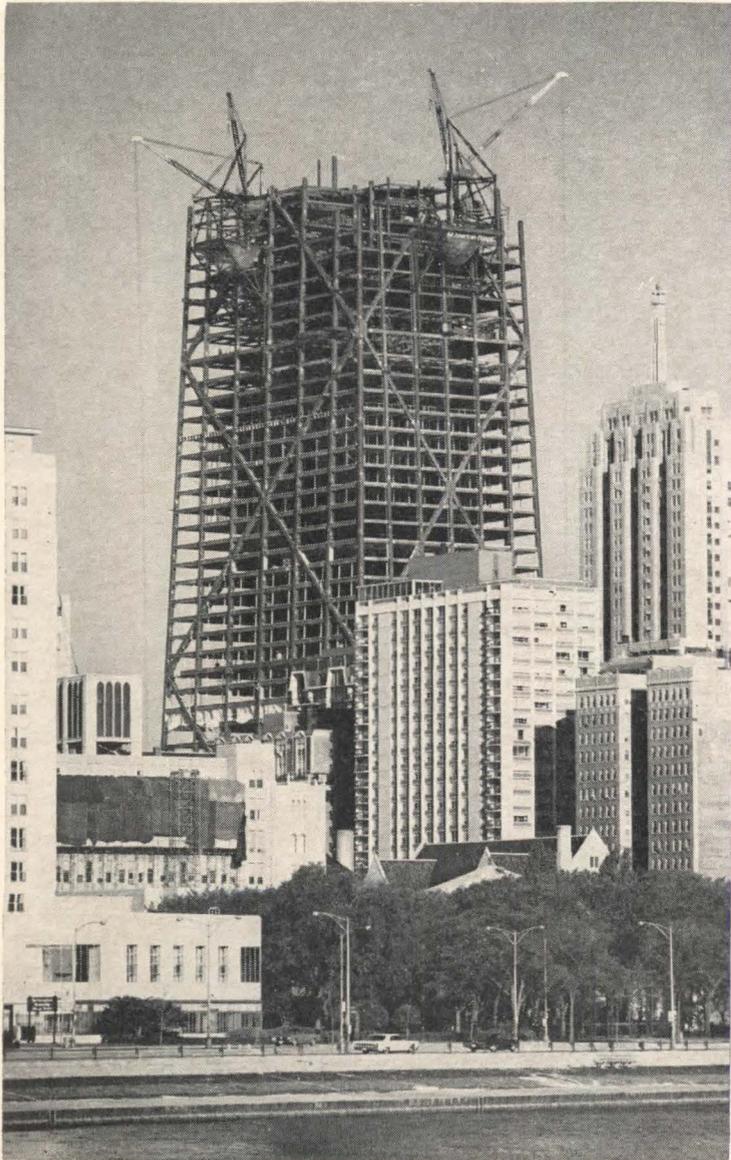
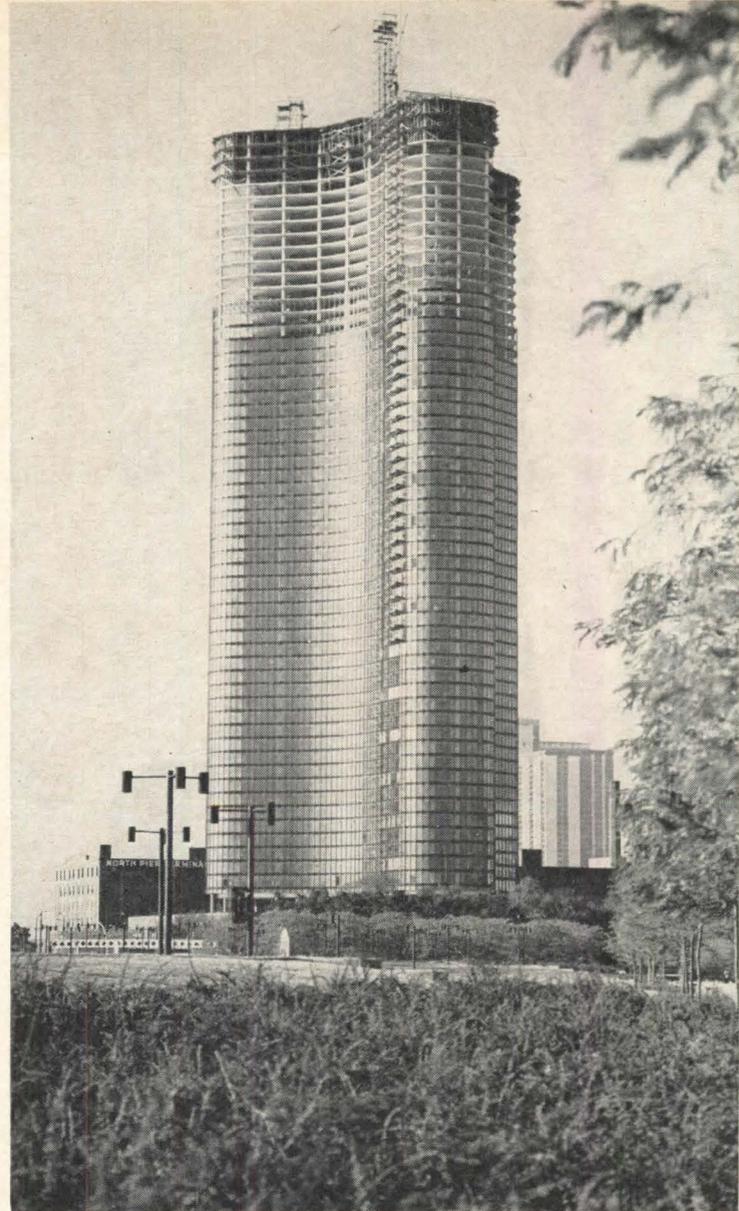
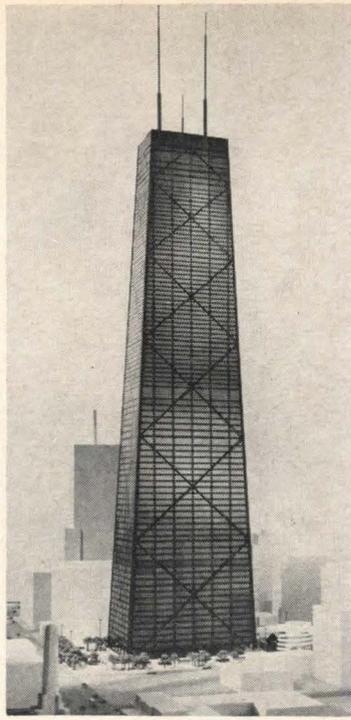
This fall 3,886 Ohio State University students have been interned in two 24-story towers on the banks of the Olentangy River at Columbus. The twin dormitories, by Architects Schooley, Cornelius & Schooley, were designed, according to a university official "to conserve valuable campus space without sacrificing facilities or student comfort." Above a three-level base of service, dining hall, lounge, and library spaces, each tower has 11 floors full of men, topped by nine floors full of women. Elevator

banks for the two groups are prudently separated, and escape stairs are electronically monitored. Each dormitory floor (plan below) houses 96 students and has just 24 windows. All of the identical student bedrooms have two sets of double-deck bunks and a window. No other space—not even the graduate proctor's bedroom ("P" on plan)—has a single window. All of this student comfort is encased in an exposed concrete slab and wall structure. It cost a total of \$17 million (\$4,381 per student) including all furnishings.



BURGEONING GIANT

As it passed the 50-story mark, heading for its eventual 100 (rendering at right), the burly steel frame of John Hancock Center already dwarfed surrounding skyscrapers on Chicago's North Side. Designed by Skidmore, Owings & Merrill as a single-building community, the structure will house shops, parking for 1,200 cars, 28 floors of offices, 700 apartments, as well as a swimming pool (on the 45th floor), and restaurants (on the 95th and 96th). With its twin 344-ft. television antennas, the structure will rise 1,451 ft. For a while, at least, it will be the world's second tallest building.



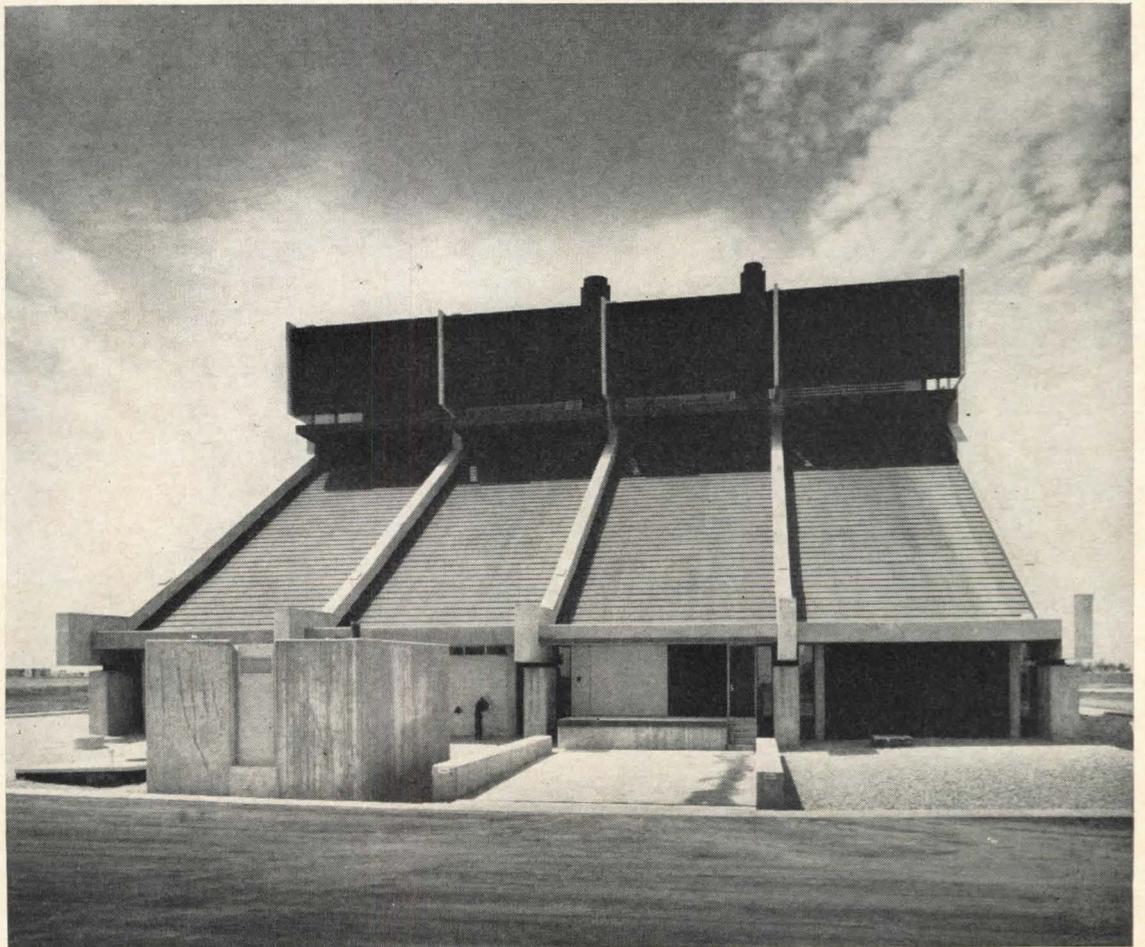
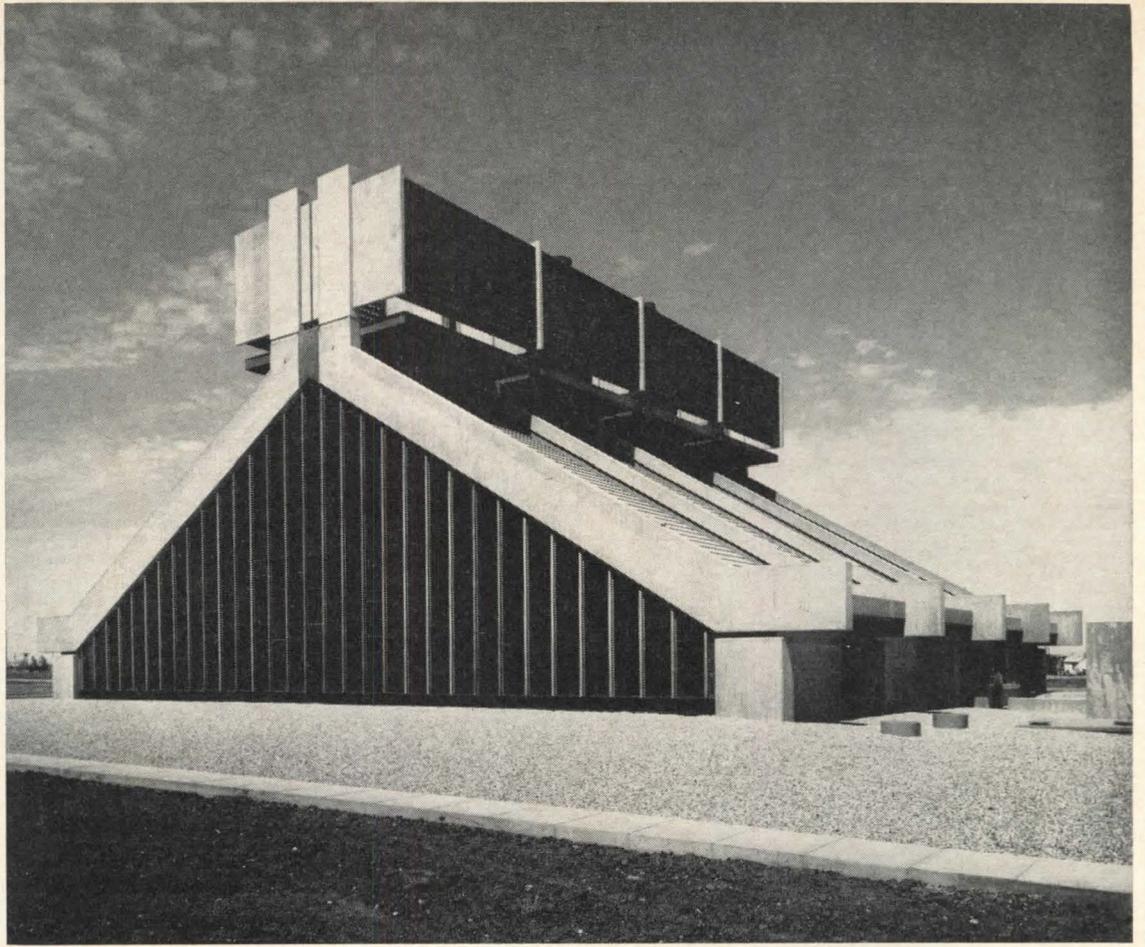
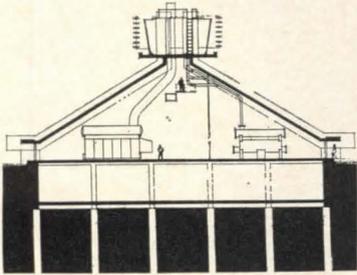
SLENDER FLEDGLING

Less than a mile from Chicago's John Hancock Center (left), another structure—a mere wisp by comparison—is nearing its final height of 70 stories. Lake Point Tower, by Architects Schipporeit-Heinrich (associated with Graham, Anderson, Probst & White), will contain 900 apartments above a 31-ft.-high base structure containing restaurants, shops, an indoor pool, and parking space for 700 cars.

The roof of this base, a whole city block in area, will be a park, with an outdoor pool, reserved for tenants. The architects claim that the tower was inspired by an early, unbuilt scheme of their teacher, Mies van der Rohe. But the three equal bulges of their shaft, and the unbroken curve of aluminum and glass that is wrapped around them, lack exactly the subtle irregularities that made Mies's prototype so memorable.

EXALTED NECESSITY

The central heating and cooling plant for the Regina Campus of the University of Saskatchewan expresses its crucial importance in the climate of the Canadian prairie. Architect Clifford Wiens has fitted a frame of massive post-tensioned precast members around the essential core of boilers and chillers. The pin-connected joint at the apex allows for vents and ducts to rise along the ridge line. Cooling units on top of the ridge are enclosed with self-oxidizing steel grilles supported on bold precast concrete fins. Glass end walls, framed in self-oxidizing steel, allow a full view of the interior from across a moat of crushed stone. During those long winter nights the glass emits a steady, reassuring glow.



PHOTOGRAPHS: Page 54-55, Arthur Witman, St. Louis Post Dispatch. Page 55 (bottom), J. Alex Langley. Page 56 (bottom and top right), Orlando R. Cabanban. Page 57, Henry Kalen.

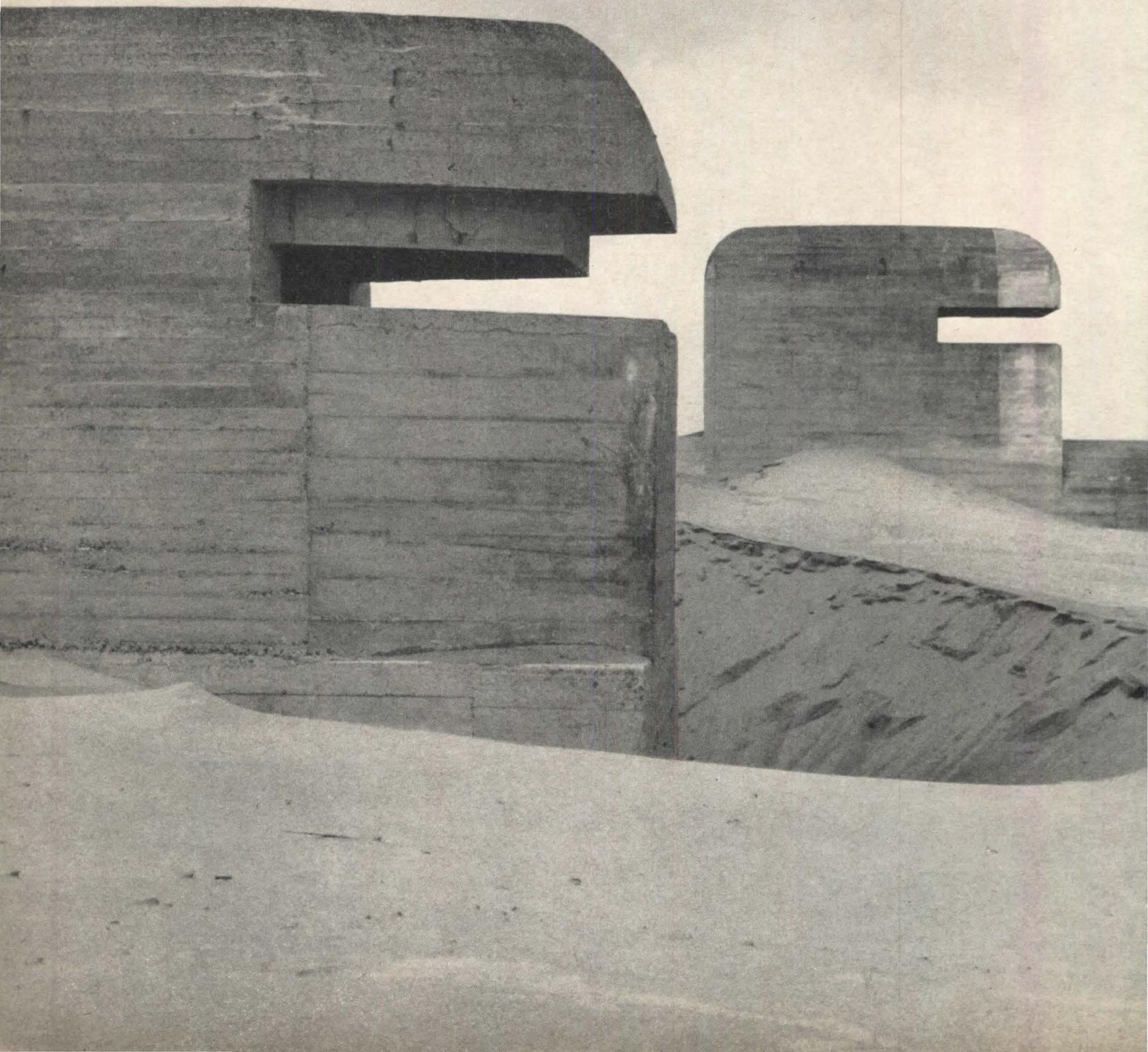
Oh, what a lovely war it must have been, what
with all the shore batteries emplaced in early Henry Moore
sculpture, and the U-boat bases looking like pre-Corbu!



From the North Sea, into the English Channel, down the Atlantic Coast, around into the Mediterranean to the Gulf of La Spezia—all along the perimeter of “Fortress Europe”—there stood these magnificent, bold hunks of reinforced concrete, staring out to sea through narrow slits cut into their walls.



And there, on the coast of Europe, a great many of them stand to
this day—abandoned now among the weeds, their gun barrels gone,
shell holes in their sides, interiors often burned out,
still staring out to sea through eyes that now appear blinded.



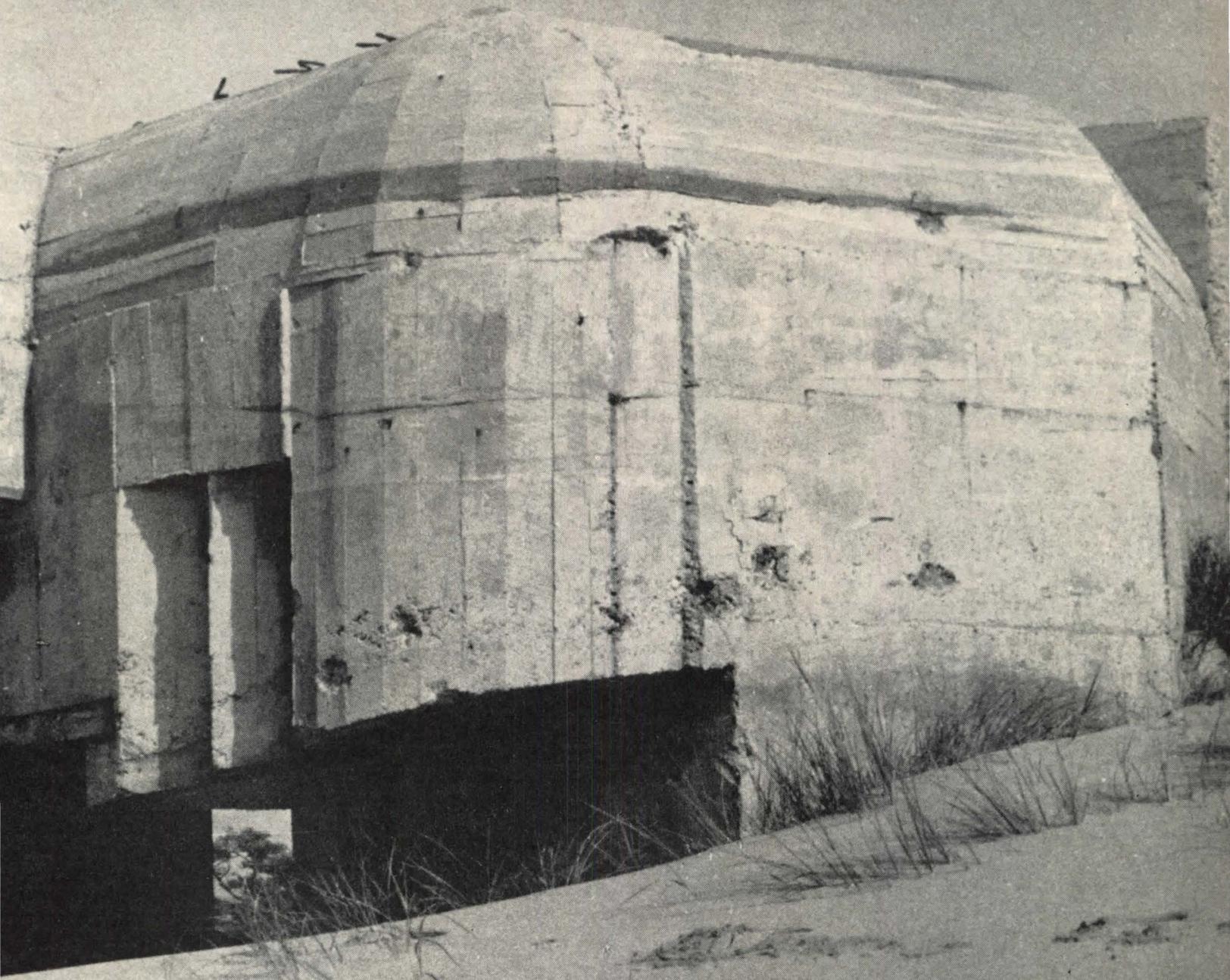


A French critic called these relics of World War II examples of "Bunker Archaeology," and they are. If mankind should survive its follies, then these great concrete bunkers may, in the future, be treasured by archaeologists as we, today, treasure the towers built by the Saracens



all along the coasts of Spain and Italy nearly a thousand years ago.

Indeed, these concrete ruins may end up as the only architectural trace left behind by the Nazis; and future architectural historians will, undoubtedly, draw all the usual false conclusions from the beauty of these forms.



CRAFTS OF THE WEIMAR BAUHAUS 1919-1924. An Early Experiment in Industrial Design. By Walther Scheidig with photographs by Klaus G. Beyer. Published by Reinhold Publishing Corp., New York, N.Y. 150 pp. 9½ by 10¾ in. \$16.50.

REVIEWED BY SIBYL MOHOLY-NAGY

After the art historians have had their say it will be up to the social psychologists to find out why the Bauhaus in Germany produced a world-wide syndrome that is increasing in strength more than 35 years after the school was closed. There were other movements, infinitely more glamorous and long-lasting: Art Nouveau, Arts and Crafts, Werkbund, Art Decorative, Scandinavian Modern. They all have found their allotted place in the survey textbooks and will be forgotten in a generation or two. Not so with that brief episode whose actual productive period lasted a mere nine years—from the founding of the Bauhaus in Weimar in 1919 to the exodus of Gropius and his closest and best-known collaborators from Dessau in 1928. Each year sees the publication of impassioned reminiscences and commentaries falling like the armies of Zoroaster into teams of white and black knights: here Gropius, there Mies van der Rohe, airing personal grievances and affiliations with blissful disregard for historical facts. The last survivors of the original Bauhaus team find themselves beleaguered by thesis candidates hoping for that as-yet-unpublished personal revelation that will evoke the admiration of their teachers—regardless of weary assurances that all that bears saying has been said.

The most obvious explanation for this unique phenomenon of Bauhaus survival is, of course, the enigmatic personalities of both Walter Gropius and Ludwig Mies van der Rohe, and their ability to keep the questions going. Both were called to this country on the basis of one of the most extraordinary se-

Mrs. Moholy-Nagy is professor of architecture at Pratt Institute and a member of Architectural Forum's Board of Contributors.

mantic misunderstandings that has ever occurred in architecture and applied art. To the American, and South American, Functionalism is the promise of maximum expediency at minimum investment. To the Werkbund Movement and its rebellious offspring, the Bauhaus, Functionalism was the moral function of design in the reformation of a morally defunct society. The second possible explanation for the Bauhaus syndrome is the liquidation of any common style and design philosophy in the Post-Second-World-War society and the falling back on the last discernible "movement," no matter how totally misinterpreted its aims and results may be.

This preamble to a mere book review might seem excessive in length but it seems necessary in order to explain the specific achievement of the book here under review. Walther Scheidig, who I am told teaches in East Germany, presents for the first time in the avalanche of Bauhaus literature the events and personalities which brought about the Bauhaus phenomenon. If one believes, as this reviewer does, that the fate of anything man does is determined by its conceptual origins, then this sober, impartial enumeration of historical facts is all that will be needed by future Bauhaus commentators to understand the entire phenomenon and its influence. In a mere 38 pages Scheidig manages admirably to introduce the Bauhaus ancestors and their full-grown descendants. William Morris and his medievalism, Charles Robert Ashbee and his socialist cooperative, Herman Muthesius' anglophile evangelism and its influence on the founding of the Werkbund and the designs of Bruno Paul and Peter Behrens, all left their ineradicable genes in the Bauhaus body. True, Nicholas Pevsner, in *Pioneers of Modern Design, from Morris to Gropius*, had similar insights. But his presentation is much more diffused and his conclusions confined to the beginnings of Gropius' architectural career.

If there is a fault to be found in Scheidig's approach, it is his

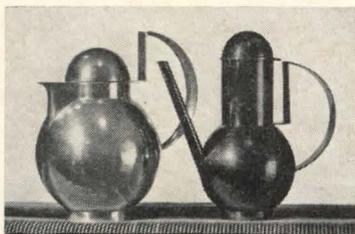
submission to the Gropius charisma, of which Lionel Feininger, the only American in the Bauhaus group, was to write in 1922: "I pity the man who is not uplifted, in some way or other, by him." This well-known phenomenon of the absolute Gropius authority misleads the author to ascribe the almost four years of crafts romanticism and Early Christian Socialism, which marked the Bauhaus program from its inception in 1919 to the turning point of the Great Exhibition in 1923, to a patient belief of Gropius in an inevitable evolution toward industrial design. In reality it was he who invoked the medieval crafts guilds as program guidance and who imposed on the Bauhaus program and its *form-meisters* a Messianism it was never able to overcome. "There are no architects today," read his manifesto for a working group of Anonymous Architects in 1919. "We are all preparing the way for the One who some day will merit this name again. That name implies 'Master of the Art,' one who will make gardens out of deserts, and let miracles rise to the sky."

Scheidig's description of Johannes Itten, the Foundation Course teacher who kept his students on Mazdaznan diets and Buddhist rites, makes Tim Leary look practically normal. It reads like a fascinating novel. Tension rises as Ch. E. M. Küpper, alias Theo van Doesburg, appears in Weimar to challenge Itten's "mystical union with mineral, plant, and animal" and to ridicule Gropius for his *Vart pour Vart* approach to the crafts. Doesburg was that hypnotic but utterly destructive phenomenon of a genius without talent of whom each architectural epoch seems to have its share. The text of *Crafts of the Weimar Bauhaus* pinpoints his role as the Anti-Christ to Itten's "Buddhism" and Gropius' Idealistic Socialism. An exhibition in 1922 in Weimar evoked the public statement by van Doesburg that at the Bauhaus young people were "misled by sick minds into useless activities." It was, of course, what the political reac-

tionaries in the Weimar Diet had needed to vote against further support of the Bauhaus, but it took another two years till they achieved their goal.

Scheidig is silent on Gropius' change of conviction but quotes Oscar Schlemmer's conversion during that fateful winter of 1922-23. "Not cathedrals but machines to live in. Turn away from the Middle Ages. . . ." The clean split down the center of his ideal crafts community between Doesburg-De Stijl functionalists and Itten disciples in monks habits was decided by Gropius in favor of Constructivism. In 1923 he appointed Moholy-Nagy, a Hungarian leader of the Constructivist Movement who totally changed the course of Bauhaus ideology and Bauhaus education. Both Itten and van Doesburg left the scene of their ultimate defeat, and the Bauhaus embarked on five years of program making and workshop production which owed most in design to the creative talent of Marcel Breuer, Herbert Bayer, Joseph Albers, and in the formulation of a Bauhaus philosophy to Moholy-Nagy, Kandinsky, and Schlemmer. An exhibition in 1923 presented for the first time to a highly receptive Europe, getting back on its feet after war, anarchy, and inflation, what the team Gropius-Moholy-Nagy had achieved in leadership. The response was such that a year later, when the political reaction in Weimar had finally achieved a withdrawal of state support, an international appeal for the Bauhaus was enthusiastically signed by Stravinsky, Einstein, Behrens, Poelzig, Chagall, Schöenberg and scores of others. It also brought an invitation from another small German "land," Anhalt-Dessau, to move the Bauhaus to Dessau where a courageous and far-seeing mayor, Hesse, remained loyal to its course throughout the subsequent vicissitudes.

This is where Walther Scheidig's written report stops, comprising, as was said, a mere 38 pages. The remaining 100 pages are filled with excellent photographs of Bauhaus workshop



Bauhaus workshop products prior to 1924: (from top) "Viennese School" poster; silverware in Werkbund shapes; "handthrown pot"; Breuer's crafted chair; Herbert Bayer's new typography.

products up to 1924 (left); this is where the puzzlement starts. These "handthrown pots" which look like the *fabrikware* of the Bronze Age, silverware in pure Werkbund shapes from anno 1908, Breuer's first attempts at crafted chairs that borrow all from Morris, and the "Viennese School" posters of the first Bauhaus events, overshadow completely the tentative beginnings of Herbert Bayer's new typography, Gunta Stözl's Mondrianesque weaving, and Moholy-Nagy's book layouts. *Tant de bruit!* Ashbee's and F. L. Wright's declarations for the machine age, the Werkbund battles for industrial norm and quality in mass production had been fought decades before. What was new?

It is the immeasurable merit of Scheidig's book that he makes this discrepancy between the evolution of an idea and its ephemeral practical results so clear. In doing so he establishes the Bauhaus as an *idea*, not a system, and its educational program as *timeless* rather than expedient. The Bauhaus masters, first of all Moholy-Nagy, would have rejected such an interpretation with all the fury of betrayed prophets. To them the *intention* embodied in a workshop product expressed the spirit of contemporary functionality. Their prophecy was an ideal state of equilibrium between "head and hand, technology and humanism, the one and the all." Scheidig focuses the whole historical phenomenon when he writes:

"One might say that to Gropius (Adolf) Meyer presented the ideal of what later became the Bauhaus type of man: he turned to architecture and building techniques after a craftsman's training, and in addition to this, his strong personality had been shaped by a religious-philosophical doctrine (Theosophy)."

That, in the course of time, the Bauhaus itself became this religious-philosophical doctrine was not noticed by its prophets; but it shows in their work. It became ritualistic, both in educational curriculum and in the creative work turned out by the Masters. The Institute of Design

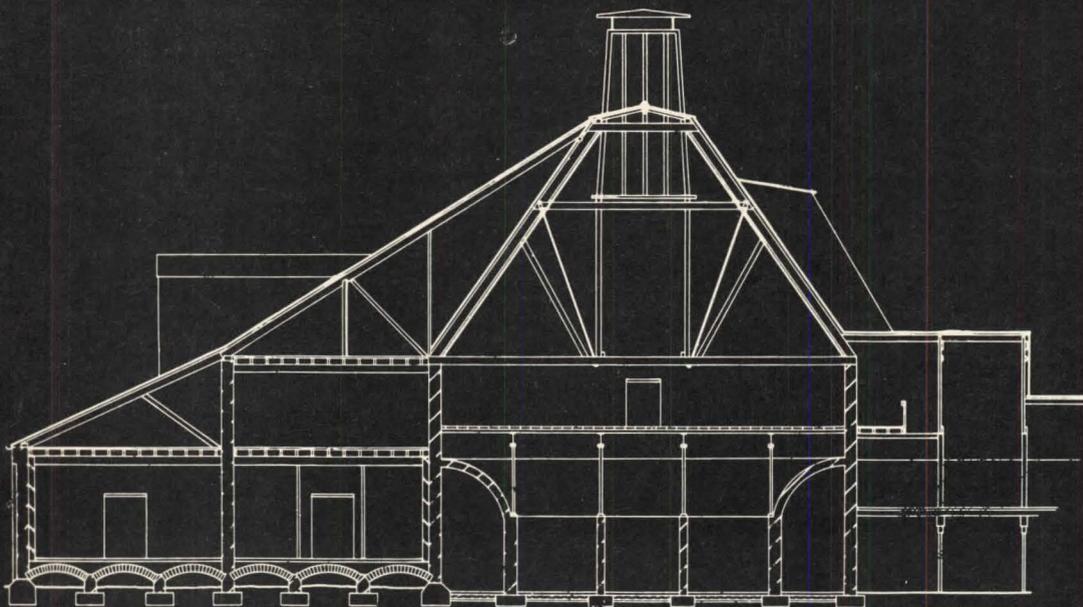
in Chicago could be destroyed after Moholy-Nagy's death because the transplantation of the workshop approach into another culture and country could only work through his prophetic personality. Neither time nor place have intervened between Gropius' tower for the Chicago Tribune competition of 1922 and the Pan-Am Building 40 years later, and Breuer's Whitney Museum was born almost 40 years ago as a hospital project.

The lesson of this highly recommended book, *Crafts of the Weimar Bauhaus*, is a lesson in the power of ideology, the power of personality, and the intuitive grasp of their manifestation at the right moment in history. If the Bauhaus syndrome of today says anything at all it indicates a spreading hunger for ideology and personality in man-made, designed environment, and it adds to this lesson the proof that this hunger is impervious to technological or electronic progress. Architectural computers, with Buckminster Fuller in the lead, have heaped scorn on the Bauhaus for the gap between its prophetic dreams and its timid, conventional construction; and architectural critics, with this reviewer in the lead, have heaped scorn on Bauhaus architecture for its esthetic failure. It is most likely that on the balance sheet of history neither of these objections will mater. What will matter is the output of the design workshops after the ideological battle had been won. The prototypical quality of these lamps, textiles, posters, layouts, stage designs, furnishings, and housewares will remind generations of students and makers of things that an ulterior conceptual integrity can produce workable results. It is all in Walther Scheidig's unpretentious conclusion:

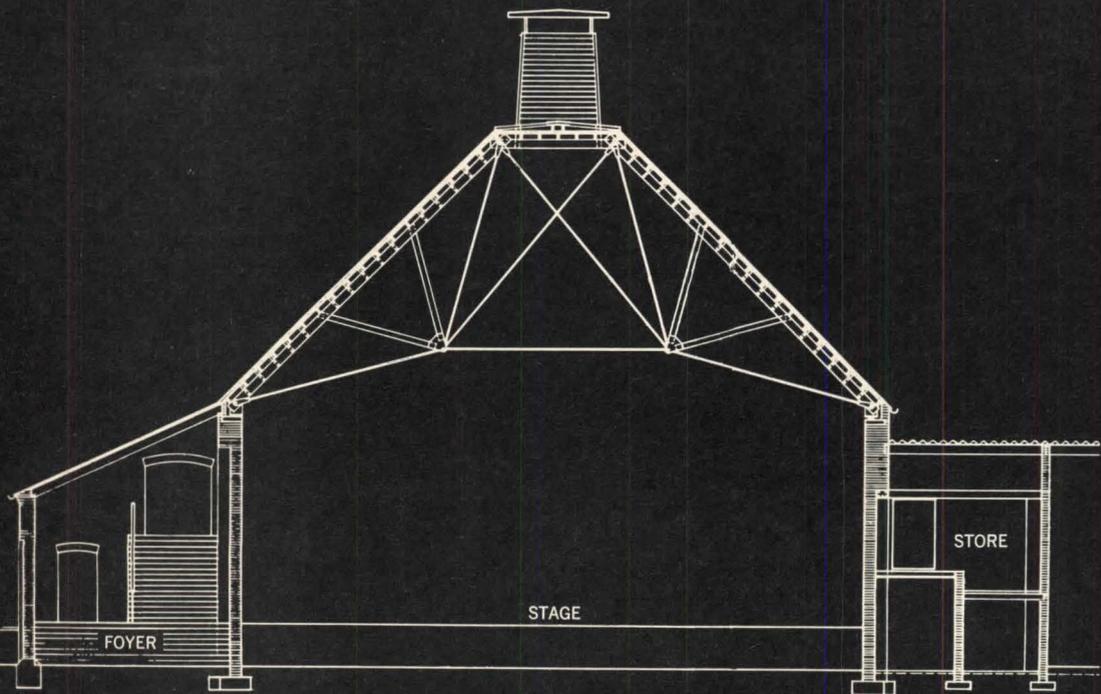
"The Weimar Bauhaus under Gropius, assisted above all by Moholy-Nagy, contributed greatly to the emergence of industrial design. It helped to bring to the attention of those in charge of industry the need for thinking in terms of men and not mechanism."

(continued on page 104)

THE MALTINGS AT SNAPE



SECTION BEFORE CONVERSION



SECTION AFTER CONVERSION

SECTIONS—BEFORE AND AFTER: Old roof was removed entirely, as was the third brick wall from the left. New roof structure rests on old walls raised 2 ft. and stiffened with arches. Pitch of new roof is 45 degrees. Four new ventilators were prefabricated to resemble the traditional smoke hoods nearby.

For some reason, it is becoming more and more difficult to design an "acoustically perfect" concert hall—or at least one that will satisfy a majority of the music critics. In view of this, it is ironic that one of the very few new halls to have been universally praised by musicians and critics alike is a structure designed, originally, for the drying, storage, dispatch, and cleaning of quantities of barley, as a part of the operation of an English brewery.

That, however, was more than a hundred years ago. By 1965, the Maltings at Snape, in Suffolk, had outlived their original use and the nearby Aldeburgh Music Festival decided to rent some of the old malthouses and convert them into a concert hall with related facilities—including facilities for operatic productions and recordings.

Arup Associates, the London firm of architects and engineers, were called in to redesign the old buildings; and in June of this year the first concert was performed in the converted main building. Everybody was impressed—not only by the fine acoustics of the hall (right), but also by the esthetic qualities of the simple, 19th-century brick building—qualities which the architects managed to retain and to strengthen.

The principal changes were made to the main building: here most of the brick walls and some of the original floors remain; the old roof structure, built by shipwrights, was completely removed and replaced with a handsome and light trusswork.

In making these and other changes, the designers created an auditorium with 824 seats that can be removed to leave a level floor; a stage 40 ft. deep with no proscenium, that extends to the full 58-ft. width of the auditorium; a generous foyer, a restaurant, recording studios, dressing rooms, and parking facilities outside for 450 cars. The cost of the conversion, accomplished in a little over a year, was less than \$400,000 (including furniture, lighting, and controls)—or about one-third of what it would have cost to build a similar facility from scratch.





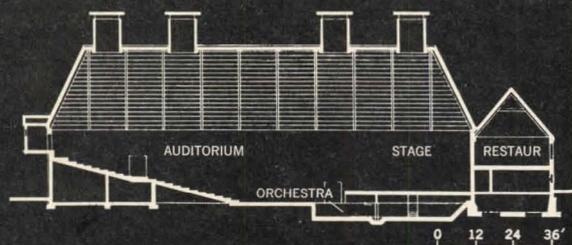
The success of the new concert hall, in terms of acoustics, is due partly to the fact that it is relatively small, and partly to the fact that the designers rejected the notion of "applied acoustics to put things right." According to Derek Sugden, of Arup Associates, "acoustics often tend to get separated from the total building. The volumes, the materials used, and the plan size are all important. It is dangerous to talk about acoustics in an abstract way, to divorce them from their physical surroundings. The whole architecture of the space . . . is responsible for our whole response to the music."

At Snape, the dimensions of the hall (58 by 134 by an average of 37 ft. high) were certainly on the side of the designers. It became unnecessary to provide large, sound-absorbing surfaces to achieve the optimum reverberation time of just over two seconds. The only absorbent surfaces are supplied by the audience itself, and by the roof deck, which consists of layers of 3/4-in. boards firmly nailed together. This does, of course, offer more absorption than a concrete deck—but not very much more. The walls are exposed brick (see photo at left), and the stage is finished with heavy hardwood flooring.

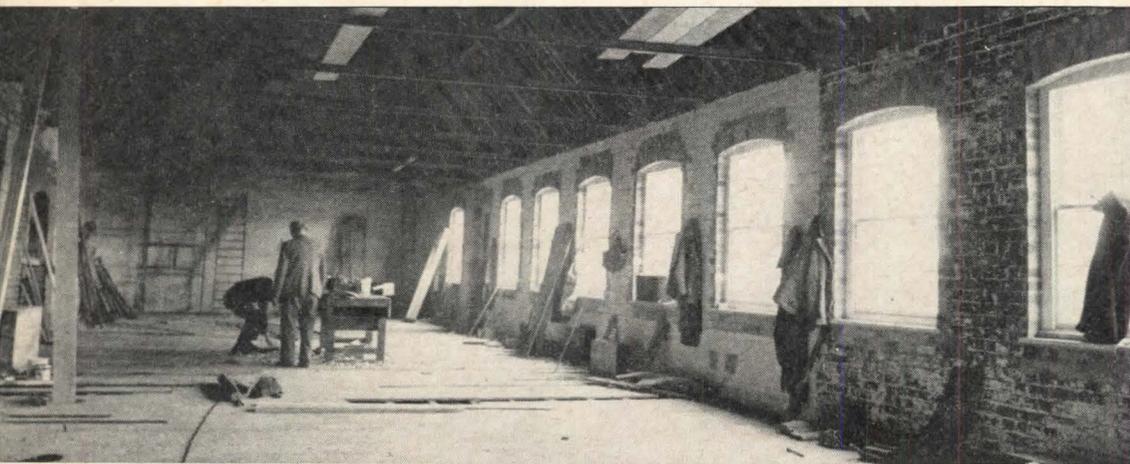
The idea of using cane in the seating for the concert hall came from the chairs used at the Bayreuth Festspielhaus. The seats, according to Sugden, had to be removable, preferably stackable, linkable, and yet firmly fixable to the floor. Above all, the designers felt, the chairs should look right in a building that still retained an atmosphere characteristic of the mid-19th-century.

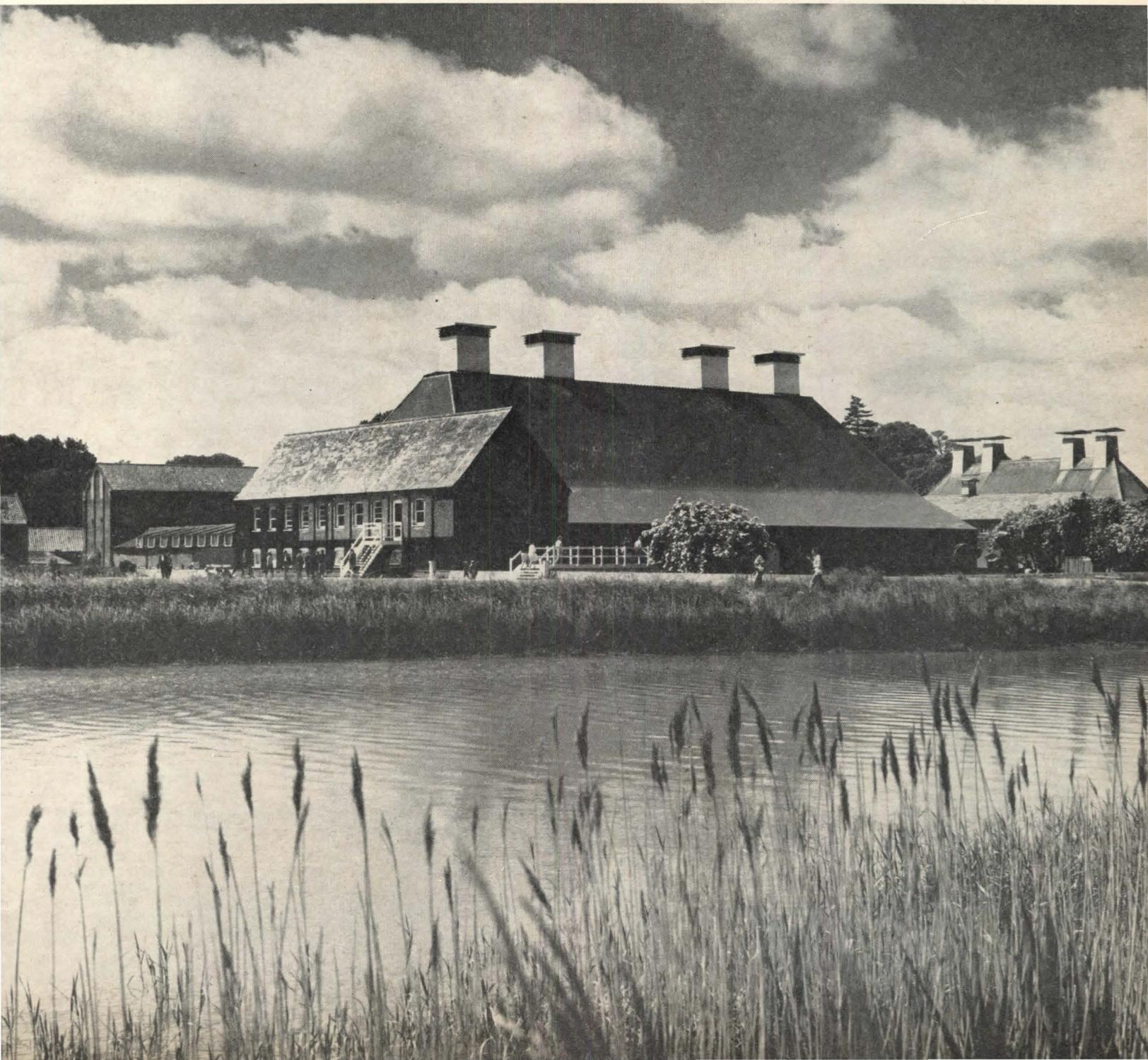
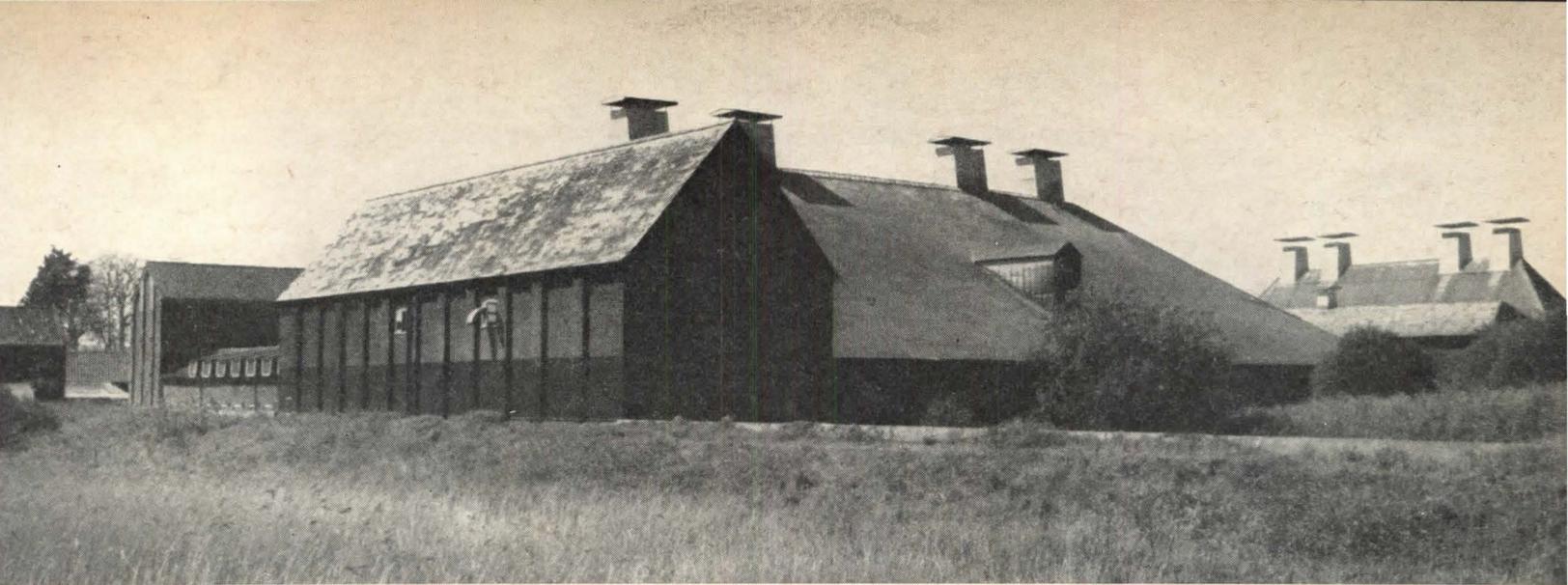
The Bayreuth chairs have been in continual use since 1876. Arup Associates produced their own design with ash frames and cane seats and had them made by a local firm.

The other major spaces provided at Snape are the restaurant (left), which faces south and has a view of the adjacent fields; and the foyer (see page 71). The walls of the restaurant have been finished with a lime wash traditional in the area.



AUDITORIUM AND RESTAURANT: Above, view of the 824-seat hall from the stage. Cane-and-wood chairs were inspired by those in use at Bayreuth for almost 100 years. Below, before and after views of the restaurant (formerly a building used to clean the grain). The restaurant is housed in the two-story wing seen in the foreground in before and after views on opposite page.



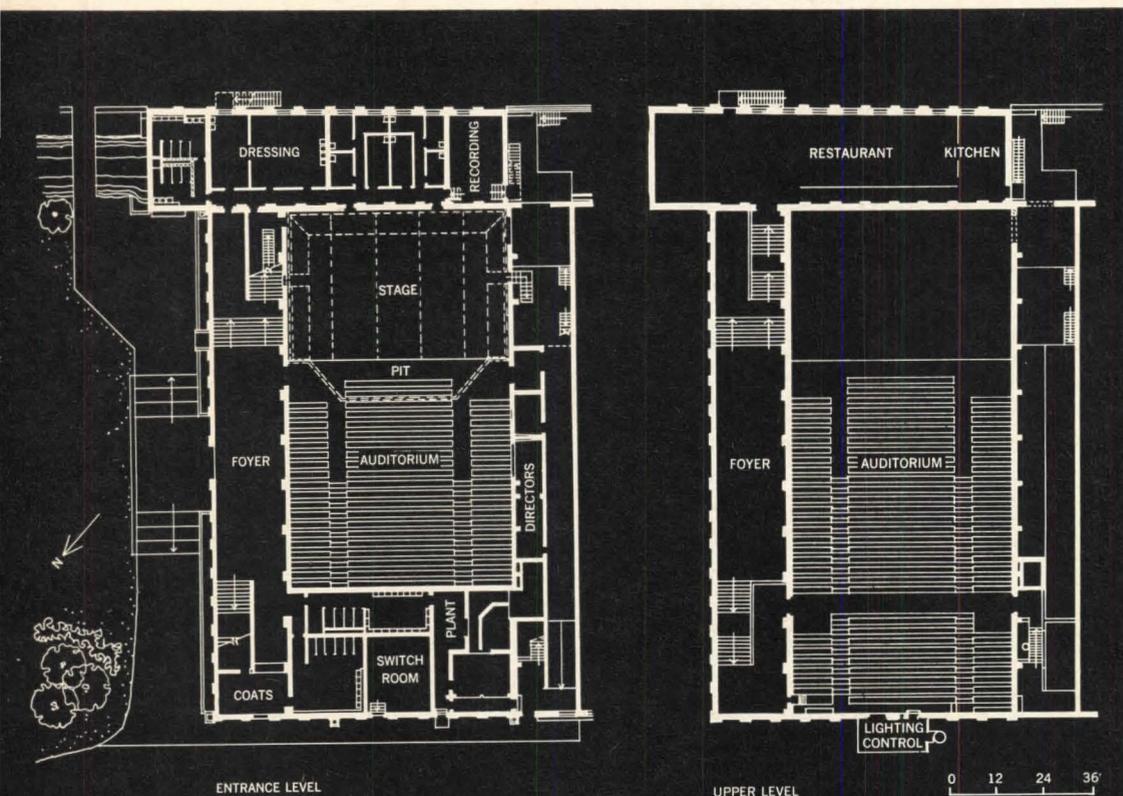




The new foyer to the concert hall is located in a space formerly used for the storage and dispatch of the malt. Although it is a rather unusually proportioned space—about 18 ft. wide by 135 ft. long—it is one of the handsomest of the rooms created in this alteration.

The new terraces outside the foyer (shown at left) mark the main entrance to the concert hall. Inside (opposite), the long foyer serves not only as an entrance hall, but also as an access to various levels in the auditorium and in the dressing room—restaurant wing. The walls were left unpainted, but the old brick has been cleaned by grit blasting and then sprayed with a synthetic resin coating.

Like Britain, the U.S. is full of mid-19th-century industrial buildings now considered inefficient and, hence, ready for demolition. The very handsome and workable job done by Arup Associates at Snape suggests that there may be plenty of life left in some of our anonymous architectural heritage also.



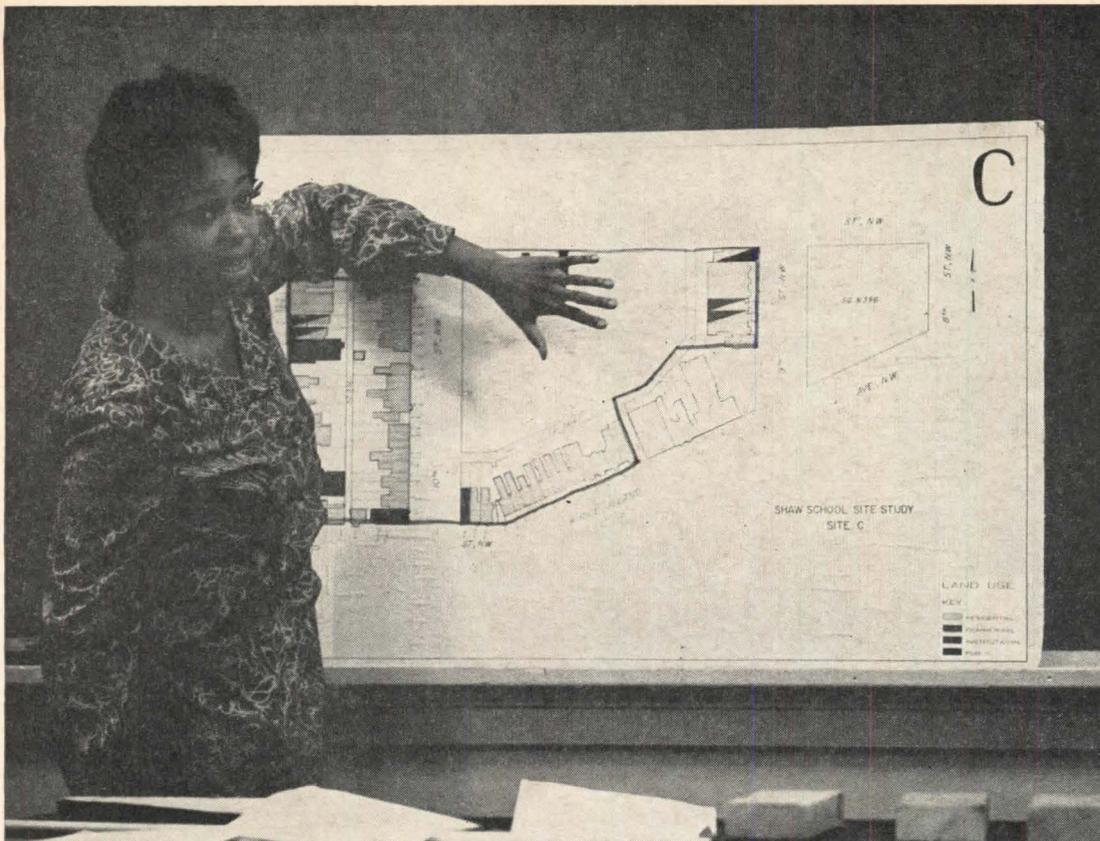
WALLS AND FLOORS: Top picture shows new terrace outside main entrance. It was paved with a local brick similar to the one used in the old buildings. Plans show two levels of the building as remodeled. Foyer, seen in view on opposite page, has original brick walls and a floor of a special local tile which no longer is available in the area.

FACTS AND FIGURES

The Maltings Concert Hall, Snape, Suffolk, England. Owner: Aldeburgh Festival of Music and the Arts. Architects and engineers: Arup Associates. General contractors: Wm. C. Reade of Aldeburgh, Ltd. Building Area: 23,500 sq. ft. Cost: \$392,000.

PHOTOGRAPHS: "Before" photographs, John Brandenburger. "After" photographs, John Donat, except page 71, Colin Westwood.





In the Shaw area of Washington, D.C., Federal funds from several sources are drawing citizens into the renewal process. Left, Patricia Turner (shown at a public meeting) is an MIT-trained social planner with MICCO, the community organization that has \$276,000 of HUD money to try to bring about a renewal plan reflecting the wishes and needs of Shaw people. Near right, an alley in Shaw. Far right, one of the community's 50,000 residents, working with a MICCO committee and hoping that the Shaw urban renewal will not be the usual "Negro removal."

PEOPLE: THE NEW VOICE IN RENEWAL



Last month in Washington, when the AIP convention had its "new town" tours of Reston and Columbia, the young Planners for Equal Opportunity led tours instead through the "now town" of central Washington, giving particular attention to Shaw (see location map, above).

Close to the White House and the Capitol, Shaw is far from the American Dream. Shaw has the problems of every black ghetto—high unemployment, inadequate housing and inferior education.

One result of the situation in Shaw is that the area accounts for almost one-quarter of the serious crime in the District of Columbia. Other results—despair and human waste—are not so easily tabulated.

In Shaw, these problems are exacerbated by a system of local government that is not too different from colonial rule; residents do not elect those who govern them—even the new mayor and city council are appointed—and the responsiveness of Congress to the black majority in the District has never been generous. Yet through urban renewal, surprisingly, the 50,000 people of Shaw may be finding a constructive voice and a means of exerting pressure in their own behalf.

"Advocacy planning" is being increasingly discussed, the planner advocate being defined as one who takes the side of the people affected by the plan—generally the poor and unorganized—and pleads their cause within the planning framework. Shaw is perhaps unique in having two groups of advocacy planners.

The full implications of the Shaw experience with citizen participation will not be felt for many months. But an early report at this stage can focus on the procedures that have been established, the early stages of the process, and some dangers that are inherent in this essential but unfamiliar process.

Citizen participation in Shaw is a home-grown idea that has culminated in a group called MICCO and an 18-month contract for \$276,000.

The idea for citizen participation in Shaw was not imposed by professional planners, government officials, or other "outside agitators." The idea and the official mechanism are the product, primarily, of a man who has lived most of his 34 years in Shaw—the Rev. Walter E. Fauntroy, for the past eight years pastor of one of Shaw's more than 100 churches.

Recently nominated by the President as vice-chairman of the new District Council, Fauntroy has been prominent in the



civil rights movement and vocal concerning the defects of urban renewal, which in the showcase Southwest Washington area, in particular, has meant "Negro removal."

By 1965, Fauntroy had tried unsuccessfully to begin a small amount of redevelopment under the nonprofit 221d3 program; but outside speculation in hopes of highrise rebuilding had already made land prices prohibitive. Only then did he turn to the idea of urban renewal with Federal write-down. But in an effort to achieve renewal without removal, the redevelopment would have to be achieved, in Fauntroy's words, "with the people, by the people, and for the people." Others agreed; and to provide the mechanism for this broad participation, 25 Shaw community leaders joined to form the nonprofit corporation calling itself Model Inner City Community Organization—or MICCO (pronounced MIKE-o) for short.

The 145-block area was designated for renewal in April, 1966, and MICCO was legally consti-

tuted within a week. In March, 1967, the Redevelopment Land Agency (the city's renewal agency) took \$276,000 from its \$2.9-million planning funds, and signed with MICCO what MICCO calls "an unprecedented contract for substantive involvement of citizens in the physical, social, and economic renewal of their community."

MICCO is an organization composed of other organizations. As of mid-October, its membership included 160 citizen groups of the 275 identified groups that have been operating in the Shaw area (such groups as churches and PTA's, neighborhood, fraternal, civic, and service groups). A 49-member board of directors is apportioned from among these categories; 51 per cent of the board must reside in the Shaw area. The MICCO structure is also geared to individuals without organizational ties, who can work with any of ten standing committees—housing, education, health, employment, recreation, transportation, beautification, welfare, cultural affairs, and business.

MICCO's self-defined task is to promote and coordinate the participation of those who "live, work, or serve" in the Shaw area. MICCO sees the process as a series of steps:

"1. Discover the needs and aspirations of the people of Shaw and interpret them to all who are involved in the urban renewal process;

"2. Find out what proposals are being made by the Redevelopment Land Agency, the National Capital Planning Commission, and the District of Columbia Commissioners;

"3. Tell the people in Shaw about the proposals;

"4. Determine whether the people like the proposals or have other proposals;

"5. Assist the people in drafting alternate proposals;

"6. Report back to the public agencies; and

"7. Negotiate changes in the public agency proposals to help produce a plan that reflects the goals of the people of Shaw."

This is a large order, if the mass of unorganized people are to be reached. As one method,

MICCO will set up what it calls the Shaw Courier, comprised of people who are in touch with many others during the course of a day; these are the "natural communicators" who can easily spread information and bring back response, and may be paid a small retainer to do so. Another device will be a Youth Assembly, encouraging young people to formulate goals and make decisions about renewal.

Other techniques will include rallies and street fairs; storefront stations and kiosks throughout the area; displays and other material prepared in nontechnical language; mobile equipment to expose this material to every block; tours of renewal projects in other cities. The job of listening and communicating is enormous, and MICCO will use whatever means seem appropriate. Their planning department already includes an architect-planner, a social planner, and an urban architect, and will soon have an economic planner; there is also a community organization department.

It should be noted that physi-

Although more than half of Shaw's buildings have census-defined "deficiencies," the area could be renovated into another high-rent Georgetown. However, the hope of citizens—and of planners both in the HUD-funded MICCO and in the antipoverty organization—is that Shaw people will not be driven out, either by clearance or rehabilitation. Right, housing near the western edge of the renewal area. Center, near Logan Circle, the District's last remaining lowrise circle. Right, one of more than 100 churches in Shaw.



cal planning is only one aspect of the job. MICCO will also participate in social planning, assisting in the District's Model Cities program (not yet approved), which envisions an all-out attack on social and physical problems, with Shaw as the major part of its area.

Economic planning, too, is a part of MICCO's program; Rev. Fauntroy's "renewal by the people" means that the millions to be spent on renewal should remain in Shaw.

MICCO is already at work developing opportunities for Shaw men in the building trades, feeling that pressure can be successfully applied here—in effect telling the unions either to make room for qualified workers in the unions or see these men go to work outside the union structure. Pre - Apprenticeship Training programs have already been established with carpenters, bricklayers, and painters unions.

The second major economic thrust is to help the small Negro subcontractors obtain more than the roof-patching jobs that are usually the only ones available to

them. A grant of \$104,000 from the Economic Development Administration will launch a major program whereby subcontractors will be helped to get bonding and to get training in estimating and bidding.

Ultimately this, too, will have leverage possibilities; Shaw will, in effect, be saying to the large Washington builders, either employ these local subcontractors now, or be passed over later by the Shaw community when renewal efforts begin. In plain language, as the Rev. Fauntroy expresses it, Shaw "wants in on the system."

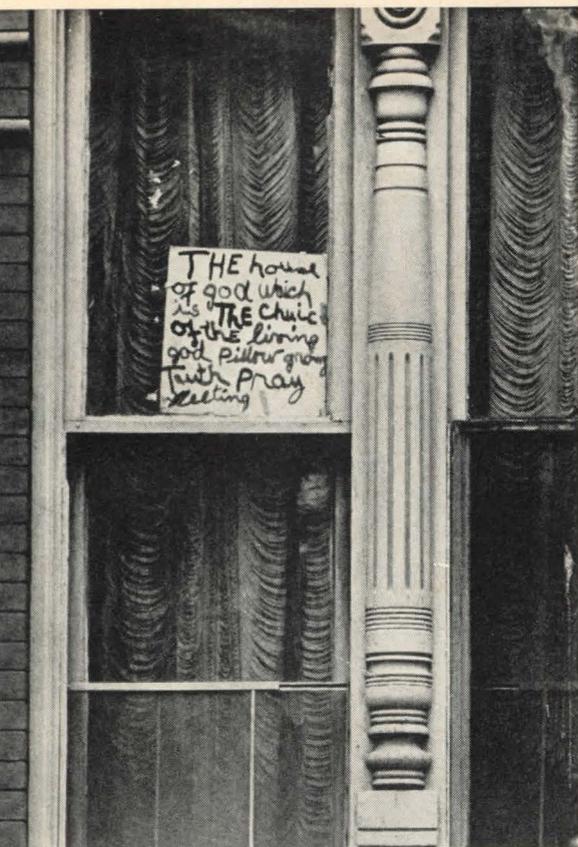
Comprehensive though it is, MICCO isn't the only game in town. Another dialogue-and-liaison group is operating within the District's anti-poverty structure.

In 1962, the "broadly based umbrella-type" United Planning Organization was incorporated, having overall responsibility for the capital's resource planning and programming. With OEO funding, it has become the area's

long term community action agency (it is also funded by HEW, the Department of Labor, and the Ford Foundation). Despite a drastic curtailment of funds last year, UPO's aim remains: to stimulate group activities among the poor around the problems that concern them, to develop leadership and involvement among the poor, and to seek changes in the institutions serving the poor.

Of UPO's ten Neighborhood Development Centers, three are in the Shaw area, with active programs not only in community organization but in specific areas of housing, employment, etc. Many of UPO's programs are with contract agencies receiving funds and technical support from UPO; Opportunities Industrialization Center, for instance, through which MICCO is developing the training of construction workers, is run by a UPO delegate agency.

Early this year, UPO established a Neighborhood Planning Unit, with the aim of bridging the gap between planners and people. They envision a contin-



uous dialogue between four major groups—the citizens, the Neighborhood Development Centers, the Neighborhood Planning Unit, and the planning agencies.

The unit is located in one of the three UPO centers in Shaw, is staffed with two neighborhood planners and two planning aides, and will draw on the many community organizers already employed at the centers. It will be working with groups already organized around the issues of urban renewal—for instance, SPUR (Shaw People for Urban Renewal), Shaw Area West, and CURAC (Citizens Urban Renewal Advisory Committee) which UPO helped to set up.

The two groups, MICCO and the UPO unit, view each other differently and respond to issues differently.

In one sense, MICCO thinks of the UPO group as part of its own constituency, another voice to be balanced with the other organizations of Shaw. UPO's three Neighborhood Development

Centers in Shaw, in fact, contribute 12 of MICCO's 49-member board.

"We're essentially in agreement," says Reginald Griffith, MICCO's director of planning, an architect who returned to MIT for a planning degree. But from UPO's neighborhood planner, William Street, a recent architectural graduate from Howard, "MICCO can't speak for the people of Shaw when it works for the RLA. They can't get citizen participation by buying it."

According to Fauntroy, "UPO doesn't understand who the enemy is—it's not the public agencies, it's the slumlords; UPO had a chance to spread the word against increasing pressure from land speculators, but they didn't. We begged them, but they seemed to think we only wanted to divert them from attacking us." Fauntroy was instrumental in UPO's design (he is, himself, a member of the UPO board), and he believes UPO is not a broadly based organization. As MICCO's Social Planner Patricia Turner

explains it, "They're concerned only with poor people; we're concerned with *all* the people of Shaw."

Basically, there is agreement—on the need to give Shaw people the chance to stay in Shaw, and the need to give them a voice in the future of the area. "The people know a great deal; they've been thinking about all these problems," says Street. And from MICCO's Griffith: "We only know what has been done wrong in the past; we don't know what the right answers are." Both groups agree that a freeway (which has been talked about for the northern part of Shaw) would be disastrous, and both agree that a subway route and station (which has been discussed for a north-south street in the center of Shaw) would be highly desirable. Both hope to plan for people, but whereas a MICCO leaflet says that planning will begin "after we know what Shaw residents need and can afford," UPO says, "we'll listen to what people need and want, and we'll make the government

find new programs." Perhaps there is less difference here than it appears—MICCO does not confine itself to existing programs, as its own existence testifies, and UPO is not thinking entirely of blue-sky solutions so much as of extending existing programs. ("If the Federal government can give 30-year mortgages to the elderly, why not also to the poor?")

Each group has its own view of the realities of political power. Each, in effect, is hoping to establish a bloc with sufficient strength to pressure the public agencies. MICCO is working within the official structure during its 18-month contract, hoping to get enough daily give-and-take that a plan with a reasonable reflection of citizen wishes will have a reasonable chance of approval by the agencies involved. UPO group is also hoping to influence the substance of the final plan, but by choosing to work outside the official structure, they hope to preserve the strength of any idea (and their identity or "image" as an opposition) even

MICCO's claim is that it reaches more than 40,000 people of Shaw, although many persons do not belong to any organization and may be difficult to reach. The planning unit in the antipoverty UPO feels that it is more representative of the poor and unorganized of Shaw. There is also a group called Uptown Progress, funded by HUD, which seeks to include the many small business people of Shaw in the renewal decisions. Right, one of the heavily commercial streets in Shaw. Center, a typical street. Far right, a playground.

PHOTOGRAPHS: Roy Berkeley



though they may thus find themselves in an all-or-nothing position on any one idea. Perhaps here, too, there is not much difference between the groups. If politics is the art of the possible, new programs can be made possible by new approaches, and what has previously been sought by Negroes in less militant fashion is now being demanded with the strength both of more voters and more anger.

An illustrative example of these differences was the selection of a site for the new school that will replace the antiquated Shaw Jr. High. The site ultimately chosen was the one favored by the D.C. Board of Education, the RLA, and 24 of the 34 MICCO groups who felt they could take a stand, and in this respect UPO thinks that citizens were called in to give their rubber-stamp approval. The RLA printed 10,000 booklets explaining the pros and cons of four different sites, asking residents to vote on the return postcards. Only 409 cards came back—a drop in the

mailbag. (UPO planners feel that the booklet was biased.)

UPO's school proposal, for another site, was for an "education complex," a new design in education, not simply "an old school in a new wrapping." The proposal was rejected, but the Board of Education is now spending \$47,500 to study the idea. MICCO, who had proposed still another site for a merger of two future schools, saw its own proposal rejected too, but feels that a major precedent was set—for the first time, people being replaced by a public building will have new housing built for them.

The change in renewal procedure is long overdue, but it is not without problems.

MICCO is aware of the major problem of apathy, of getting people to feel that they can have a voice in their future. This is a group that is not used to the exercise of political power, especially here in the capital. In 1964, the area's first chance to vote for a U.S.

President, less than 25 per cent of the eligible voters responded. There is also the possibility that UPO will so discredit MICCO among some segments of Shaw, that MICCO will, in fact, represent only selective interests in Shaw. (This is apart from UPO's more positive work as an opposition, in mobilizing pressure behind its own proposals.)

MICCO recognizes a "credibility gap" in urban renewal, as did RLA, when they asked "Why urban renewal?" in a flyer, and answered, "Urban renewal provides \$2 of Federal money for the preservation of the Shaw area for every \$1 contributed by the District government." This reply may not cut much ice with those Shaw people who were one-time residents of the Southwest renewal area. Shaw is an area strongly suspicious of government, and with good reason. It is said that Shaw people have seen enough surveys to become professionals, and have learned to give the answers they think are expected.

People will have to see visi-



ble results—and soon—a problem that is both challenge and threat to the planners. Early meetings are just beginning, for residents in the 45 households on the site chosen for the new school. As they begin to register their needs and wishes for replacement housing, one can be sure that the procedure will be watched keenly by the rest of Shaw.

It will be difficult to present alternatives in meaningful terms. As MICCO explores with the relocation candidates whether, for instance, they want highrise or lowrise for their replacement housing, the question may prove to be unfair. People will answer only from a limited experience of these, without knowledge of other possibilities. (One man has already decided; he wants a one-bedroom apartment, second floor, southwest corner.) As to whether to build more units on this initial project than the displaced families will need, one resident answers, "Yes, no matter what we ask for, we'll get less." With the need to make

quick decisions (MICCO's contract allows nine months for survey, nine for planning), and with the limited funds (MICCO is, however, seeking additional money), it may be necessary to short-cut the public education job that is needed for responsible decision-making.

There is also the problem that the planners may have inclinations affecting their perception of what people want, tending to make the professional task still, as previously, an engineering of consent.

The project director for RLA, for instance, Frank del Vecchio, is a lawyer-planner who was project director for Charlestown (with the Boston Redevelopment Authority), and project director of Wooster Square in New Haven; he is incidentally one of the few persons working in Shaw who is white. Del Vecchio's leaning at this time is strongly toward rehabilitation, although because of present overcrowding he believes that the area will require a clearance ratio greater than Charlestown's 10 per cent.

MICCO planners do not talk in percentages. UPO planners believe that rehabilitation isn't realistic when 70 per cent of the homes are owned by outsiders ("slumlords"), and that 42.5 per cent of the area now used for streets is inefficient.

But the major question probably comes from the ghetto situation itself. Some Shaw people—and it seems to be representative of MICCO—envision a *quid pro quo* arrangement wherein some whites will be lured into a desirable new Shaw, especially along the western edge, in exchange for some opening up of the white suburbs. Other Shaw people, and it is not certain in what strength, will want the black community to turn in on itself, without whites, to build itself to a point of strength where it can then rejoin the rest of America on the basis of an equality it does not now feel it has.

When asked what would happen if integration were *not* the goal of Shaw residents, del Vecchio responded, perhaps hastily, "It should be." Will

citizens be allowed to make their own decisions only when they make the "right" ones?

This then, is only one more problem in an untried technique—that people may think they're being asked, but feel they're not been listened to. The *Washington Post*, in describing the new-style renewal of Shaw, nevertheless referred to the area as being "subjected to renewal." What a cruelty if the Shaw people should measure the changes in their lives, after renewal, and conclude that they have only been "subjected to citizen participation."

There is a chance here, as rarely before, for planners to listen to what people want. Perhaps those who are listening will recall, with one ear, what the rioters this past summer were saying—especially in Detroit, where they had been "given" better housing, say, than in Newark. They were saying, in effect, "Buildings are not enough; we want a new role in the decisions affecting our lives."

—ELLEN PERRY BERKELEY

HOUSE OF MANY PARTS

More than one-half the substandard housing in California is in rural areas. In the Central Valley alone, some 300,000 farm families live in houses to which the label "substandard" is applied, a label that does not begin to describe the miseries and inadequacies of the environment.

Believing that rural problems "come home to roost in already overburdened cities," and in any case turning to rural problems just because they are there, unsolved, Architects Hirshen and Van der Ryn have designed a low-cost house for use in rural and urban fringe areas. In the large lot next to their office in Berkeley, the architects have con-

structed a prototype of their "kit house," although they quickly explain that the house is less a finished prototype than a field test of alternate wall systems and components. Produced for \$12 per sq. ft., the prototype could be built in quantity for a price of approximately \$7 to \$8 per sq. ft., Sanford Hirshen believes.

Other factors besides cost were important, and the resultant design is a house that is transportable (below left), having no dimension greater than the 10-ft. width allowable on highways. A 12-ft. width is also permissible under the law, but under such restricted conditions as to be impractical for long moves, Hirshen



Steel-framed unit 10 ft. x 32 ft. travels well on the road, reports Architect Sanford Hirshen. He and his partner Sim Van der Ryn have combined this unit with other components (isometric drawings, near right) to form what they call a "kit house" for use in rural and urban fringe areas. The modules and core can be combined in various ways (diagrams, near right, bottom), and in a variety of site arrangements ranging from 7 units per acre to 18 units per acre (model photos, far right). A keystone of the kit house is the concept of self help, whereby an owner contributes his own labor to reduce the cost of construction. Through the design of this house, the architects hope to have alleviated the weaknesses of previous efforts in self-help housing.

believes. (The mobile-home industry is less concerned about width; in 1965, 45 per cent of all mobile homes sold were 12 ft. wide.) In addition, the design of the components is intended to permit a variety of dwelling plans (see photos and diagrams below), a variety of options in materials, and variety of site arrangements and densities. The house is designed to be expanded and modified by the residents, and to be shop-fabricated and erected with minimum equipment and skills. A major concept is that people would be employed in making the components, while at the same time getting a house for themselves, almost as a by-

product; housing thus becomes a social tool in creating jobs and a physical tool in solving environmental problems.

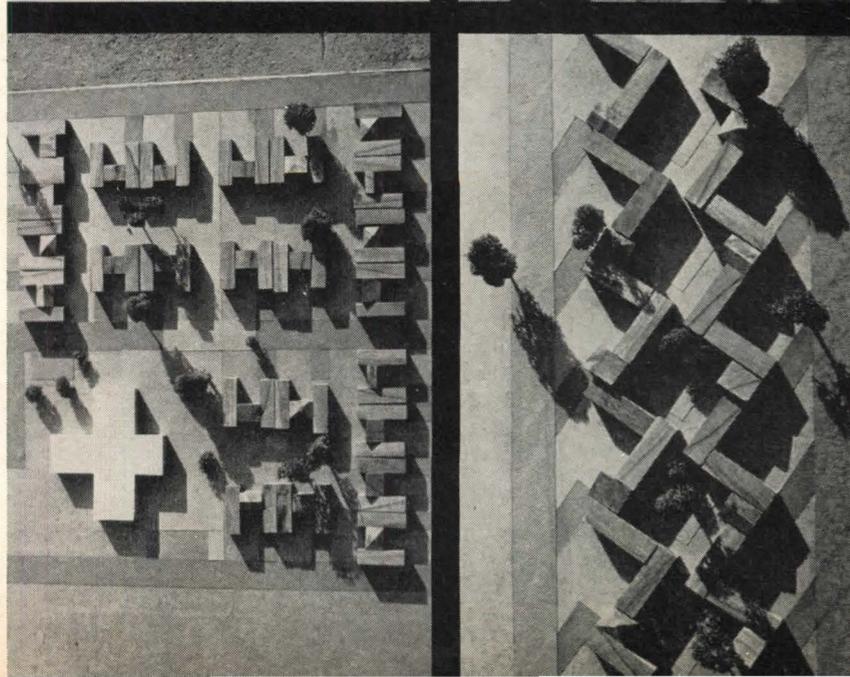
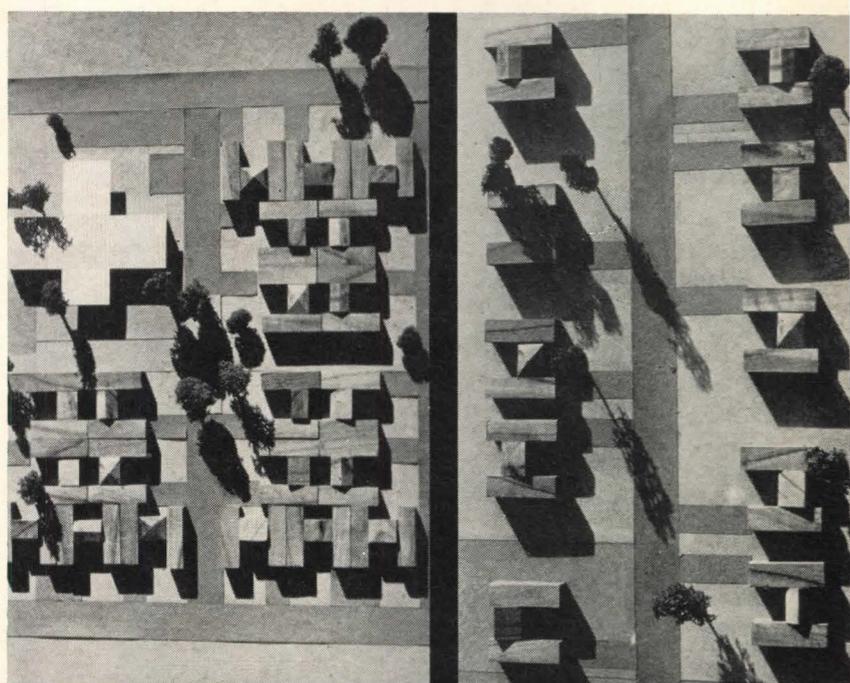
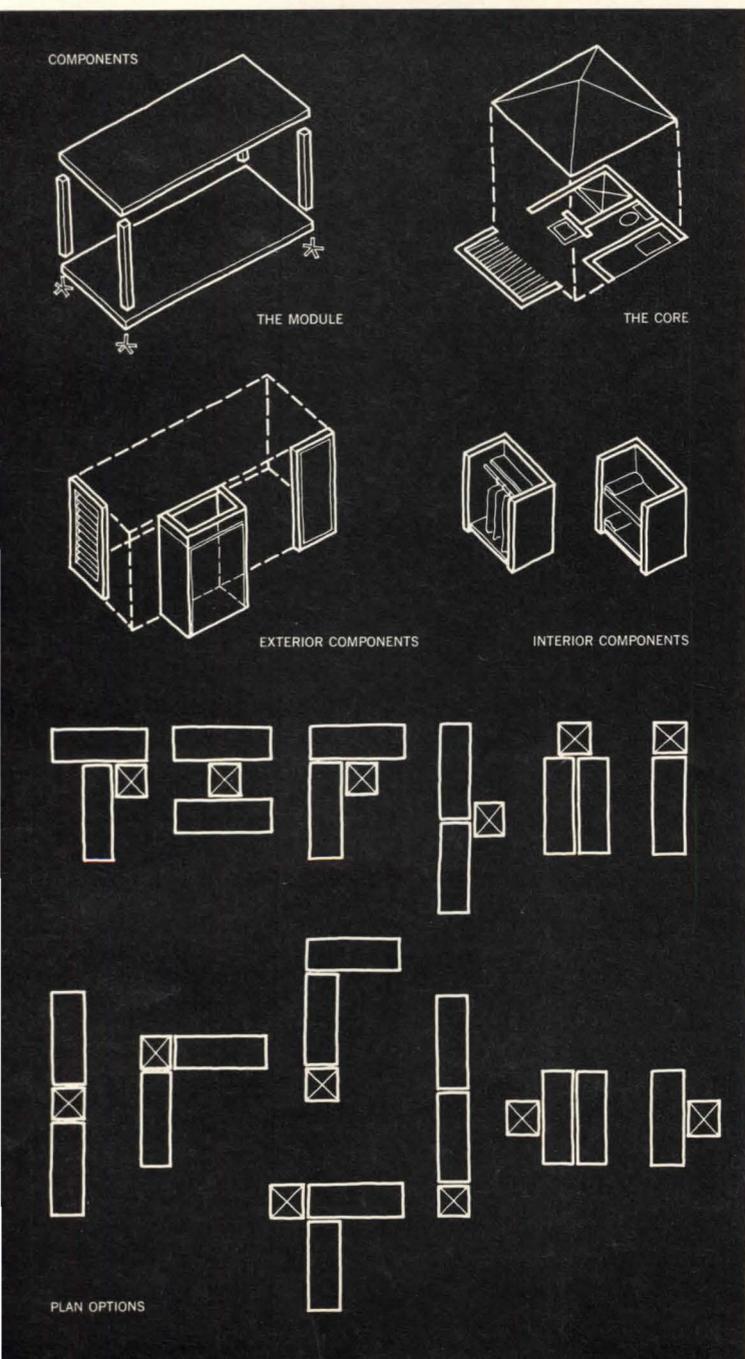
The prototype combines the concepts of modular section and core house. The module is a steel-framed box, 10 ft. by 32 ft., with floor and roof fabricated as complete units. Different wall options are possible—prefab sandwich panels, for instance, or wood stud. (This prototype has an experimental fire-retardant wall, using gypsum board on the exterior.) The core contains all plumbing services and equipment, housed in a shell that is either built on the site or prefabricated. The entire dwelling

can be supported on precast concrete piers (the module requires support at only three points along its length).

As built, the prototype illustrates a "court house" or "bi-nuclear" plan, with the core dividing the house into private and semiprivate areas (following pages). Numerous plans are possible, say the architects, with other arrangements of core and module, and with the utilization of space dividers within the modules. There are no interior partitions in the modules, but a single standard component can be adapted for use as a storage unit, a sleeping space, a shell for kitchen equipment, or a space di-

vider. The intent is to provide the resident with the widest leeway in the arrangement of the basic space. There is also great variety possible in site layout; the architects have designed site plans with densities varying from seven units per acre to 18 units per acre.

A keystone of the design is the self-help concept, whereby people use their own labor to lower the cost of their housing. The architects hope that through the design of this house they can alleviate several of the weaknesses of previous experiments in self-help housing. Because the kit house is not fixed to a specific site, the "sweat equity"



investment is not tied to a specific place of work. Because this is not conventional construction, the usual 1,000 hours (of relatively inefficient labor) can be drastically reduced. Also, because the time is reduced, the spirit of cooperation and group action implicit in the self-help idea need not be dissipated, and further, the quicker home-building would leave time, on a cooperative basis, for building other important facilities such as neighborhood centers, child care centers, stores, and recreational facilities.

Many farm workers have come to see the prototype—walked into it, felt it. They tend to be uncritical, reports Hirshen, be-

cause the house is already so far beyond what most of them now have. There are several key criticisms, however. People are not happy about the low space dividers; they would rather have ceiling-high partitions for privacy. The restraint of the 10 ft. width is felt seriously in the living area; these families generally have large overstuffed furniture. The visitors don't mind the exposed steel, says Hirshen, and they strongly favor the 9-ft.-6-in. ceiling.

Professionals would raise other questions. The site planning options will only work if the plan options do, and the schematic combinations of core and mod-

ules gloss over some obviously troublesome connections. This is true, says Hirshen; some options are weaker than others, and the cores would have to be modified for several of the plans.

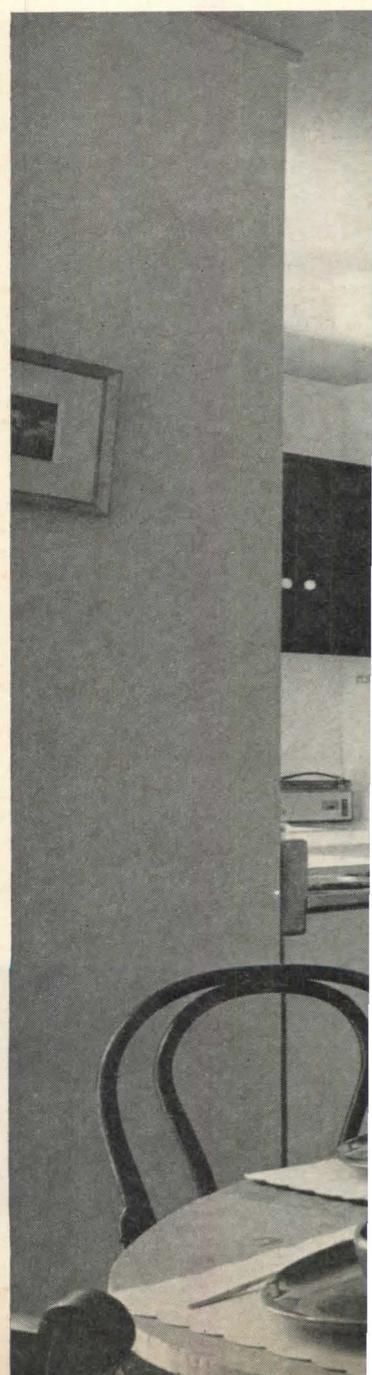
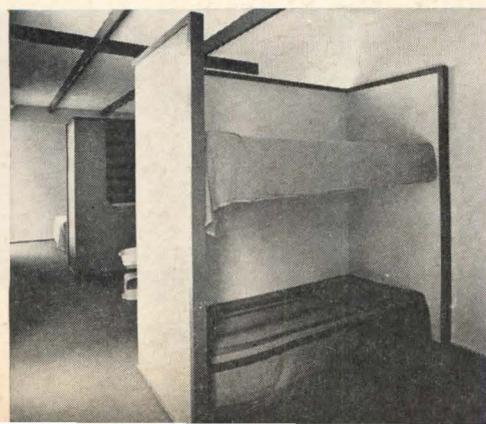
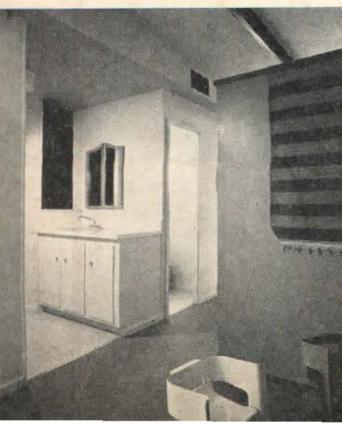
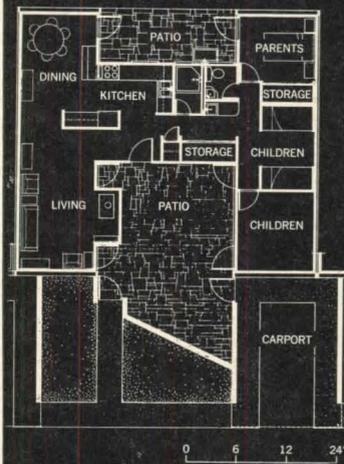
Little freedom seems to exist for rearrangement of interior space, since the space of the modular sections is already small and well defined. Hirshen disagrees; some families have as many as 13 children, and would be able to construct many different "sleeping stations," for instance, within the basic module. Parents could sleep in the living area, and arrange their children dormitory-style in the other module. An extremely poor

family could use only one module at the start, and meet all its needs in the one unit. The rearrangements possible within a module, however, bring up the further question of whether a large family doesn't need much more extensive space, overall, than a small family.

The plan suggests other questions. How desirable is direct entrance into the kitchen? It is not ideal, Hirshen admits, but it is not unsatisfactory, and grew out of the desire to have a "mud room" entry. How justifiable is the expansion box (shown here in the living area) in terms of flashing and roofing expense? It would probably be prohibitive,



Prototype "kit house" was constructed next door to the office of Hirshen & Van der Ryn in Berkeley, Calif. (left). This particular combination of modules and core is arranged in an H-plan (below), although numerous plans are possible. Note the single standard component that serves in the interior as a storage unit and room divider at parents' sleeping area (bottom, far left), as a sleeping station (bottom, near left), and as a frame for kitchen components (right). Roof is steel frame; wall components are gypsum board.



says Hirshen; a great deal of hand labor was expended on this detail. The architects constructed this prototype themselves, and are thus in a position to evaluate on a first-hand basis many of the questions of construction, particularly as applicable to the self-help process.

How do the units travel? Exceedingly well, it is reported. There are four firms in California who have been making these steel frames, using them for relocatable classrooms, thus far (see May '67 issue), and the experience has been good. The roof and floor planes are welded; the column connection is bolted, at the factory or at the site.

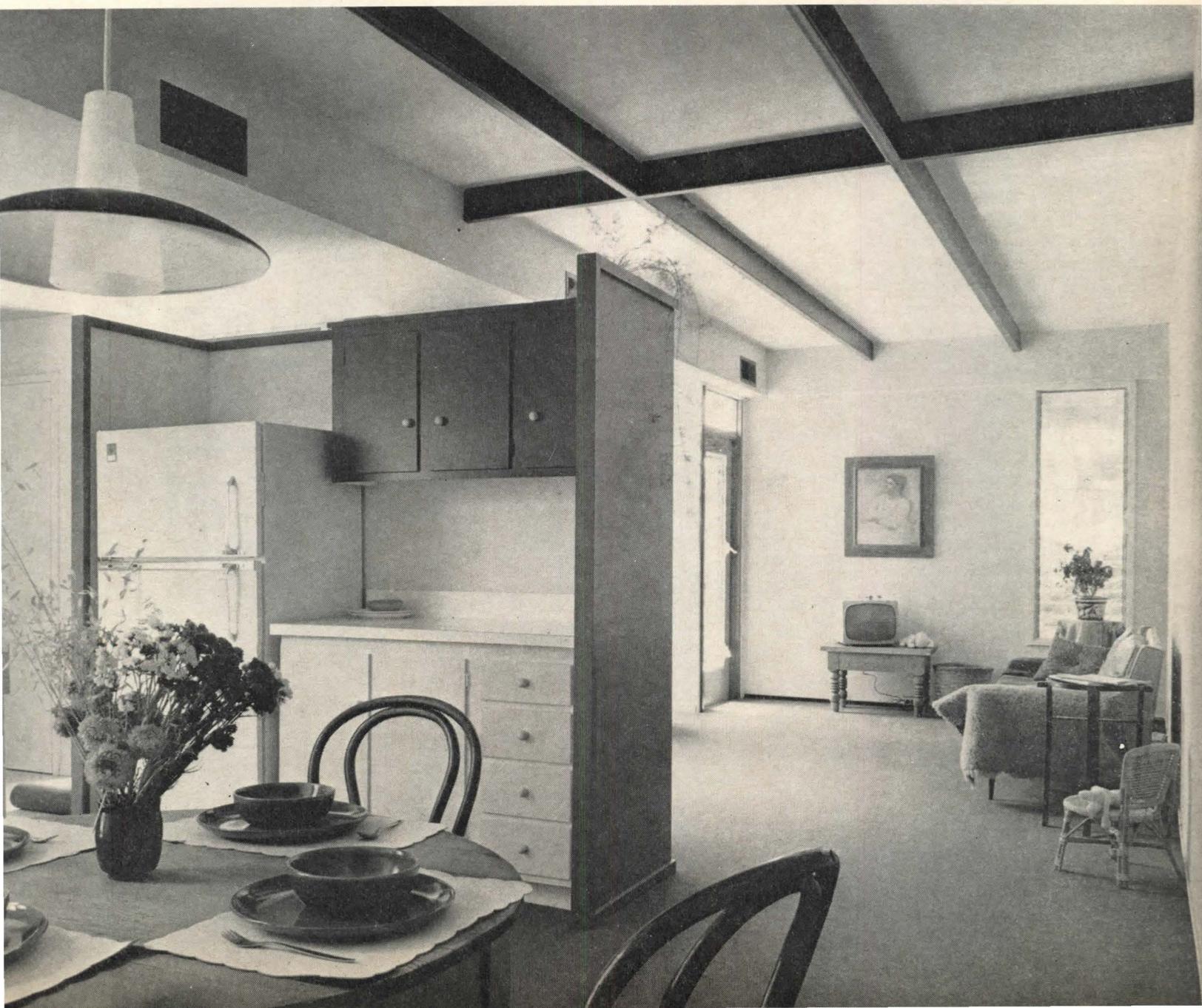
In what way is the "kit house" superior to a mobile home that is available at less money? Structurally, answers Hirshen. This is a substantial building, with a 40-year life, whereas trailers are sold on the basis of a seven-year life. There are also psychological factors that improve on the standard trailer—the 9-ft.-6-in. ceiling height, and the fact that every window is also a door (an actual as well as a visual escape from crowded quarters).

Are the cost estimates realistic? A figure of \$6 per sq. ft., for which the architects were originally aiming, is probably unrealistic. However they believe that the cost of \$7 to \$8 per sq.

ft. could be attained if the kit house were built in sufficient numbers. They mention, further, that as presently designed for classroom use, the frame is heavily overdesigned and would be susceptible to savings through redesign. They hope to build several of the houses through Self Help Enterprises, an offshoot of the American Friends Service Committee's self-help program. A much larger experiment is envisioned in a current proposal by the Rural Development Corp. for OEO funds to provide technical and planning assistance. A proposal has also been made to the city of Oakland, suggesting the kit house for use in the Oak

Center redevelopment. Ultimately, however, real savings will be realized when standardization and prefabrication are successful with the core of the house, the single largest cost item, rather than with the shell, which is only 20 per cent of the total.

FACTS AND FIGURES
Kit House, 731 Virginia St., Berkeley, Calif. Architects: Hirshen & Van der Ryn. Project financed through a grant from the Rosenberg Foundation. Building area: 850 sq. ft. Construction cost: structural components, \$3,642; space-defining components, \$1,835; mechanical and equipment components, \$3,172; labor component and development costs, \$3,950. Self-help cost (total minus labor): \$8,500. PHOTOGRAPHS: Page 78, Ronald Gammill. Pages 80-81, Rondal Partridge.



THE CHURCH THAT TURNED A CORNER

When the 93-year-old Church of the Epiphany on Manhattan's Second Avenue burned down in December, 1963, its parishioners could hardly have imagined a replacement like the building at the right. But the new building was designed during the period of the ecumenical councils and the "new liturgy" in the Roman Catholic Church, and it is evidence of change.

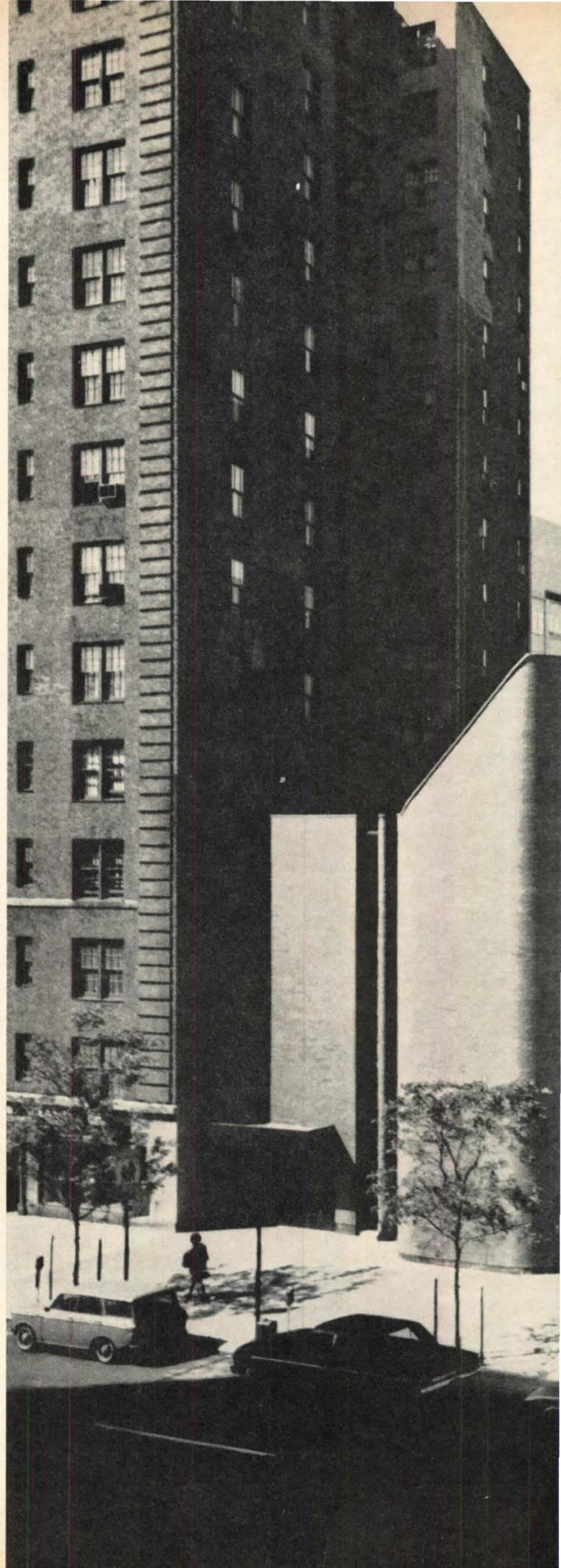
The first obvious departure in the new church is its street-corner forecourt, a 3,000-sq.-ft. open space carved out of the dense grid pattern of the neighborhood. Architects Belfatto & Pavarini clearly designed the church as a backdrop for this space. Walls of purplish brown brick rise in curves around the court. Some of them fold inward to form what appear to be turrets; others curl tighter to form pillars guarding the tall, narrow openings. At the center, two U-shaped walls rise above the others to form a split tower, the taller half of which holds a stark cross of self-oxidizing steel.

From the street, the church itself appears to occupy only a shallow L-shaped volume around the court. Actually, the sculptural brick forms conceal a surprisingly large interior which extends far into the center of the block (photo right).

An unfenced forecourt in such a location could easily have been mistaken for—and used as—a vest-pocket park. To make the distinction clear, the architects elevated the court and surrounded it with a low wall designed to make sitting uncomfortable. Broad flights of steps lined up with the main doors emphasize the role of the space as a passage. As a result, hardly anyone enters the forecourt except on the way into the church.



View from a rooftop across Second Avenue (above) shows how the church fits in behind adjoining buildings. From a lower viewpoint (right), turrets and tower stand out boldly against a distracting backdrop.





The church interior: unexpected volume

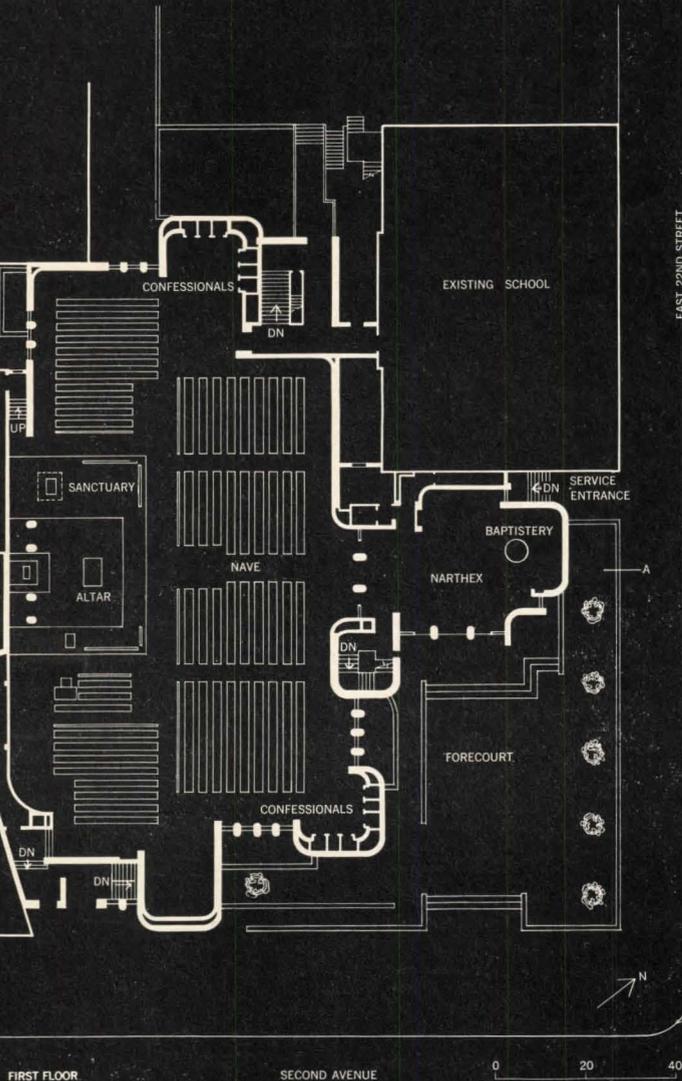
The nave of the church, the main interior space, comes as a surprise both for its size and its simple, loftlike character. Except for alcoves and chapels around the edges—some of them fitted into the “turrets” of the exterior—there is only unobstructed space under a coffered plaster ceiling of uniform height. Although this ceiling is exactly where it appears to be from the outside, the unexpected size of the space makes it seem lower. The hanging lighting fixtures, unpretentious but somewhat bulky, further reduce the apparent ceiling height.

The entrance from the narthex is on the axis of the main altar (right), but it soon becomes clear on entering that the nave does not have the conventional axial organization. Seating is arranged around three sides of the altar, in the spirit of the new liturgy, so that no worshiper is more than 12 rows away from the altar rail.

The sanctuary has been given only slight emphasis architecturally. Behind the main altar is a row of four cylindrical piers made of the same brick as the walls; above it is a skylight (of a rather ineffective cross shape). It is only when the sanctuary is peopled with the celebrants at a mass that it becomes the definite focal point of the nave. When the church is open for individual devotions, it is only one of several centers of interest. The distinct areas set aside for a shrine, for confessional booths, and for the stations of the cross take on an importance almost equal to that of the canopied altar of reservation.

The tall stained-glass windows have been carefully located to catch sunlight passing between surrounding buildings and project it in vivid colors on the neutral brick. Their abstract leaf-like patterns are inoffensive and make effective use of uncolored glass to increase the light admitted. But the use of a different overall color scheme (blue-violet, yellow-orange, etc.) for each set of windows makes the interior less cohesive than it otherwise would be.

SECTION A-A



FIRST FLOOR

SECOND AVENUE

0 20 40'

EAST 22ND STREET

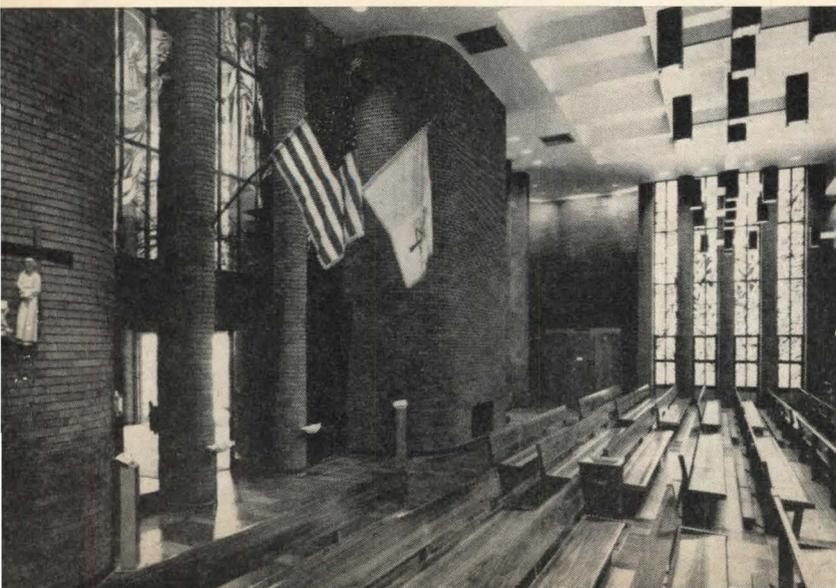


The nave (left) is a broad, clear space defined by meandering walls of purplish brown hard-fired brick. The austerity of the brick is maintained in the split slate floors, dark anodized aluminum light fixtures, and plaster ceiling (which looks like exposed concrete). These materials contrast strongly with the marble altars and textured bronze canopy in the sanctuary (facing page). Organ pipes will eventually fill the loft to the left of the altar, adding more visual richness.





The entrance and court:
a gesture to the city



The main entrance from the forecourt (facing page) into the narthex (top left) passes beneath windows representing the Epiphany, which receive full sunlight at the hours of morning mass. A skylighted alcove of the narthex (middle left) serves as a baptistery. A screen wall of clear glass with frosted figures separates the narthex from the nave (bottom left).

The narthex (top and middle left) has been treated as an extension of the nave, with the same ceiling height and surface materials. It is more than just a lobby—it also serves as a devotional chapel and a baptistery.

The set of three windows above the outside entrance doors (top left and facing page) are similar in detail to those of the nave, but form a single representational composition. They depict the Epiphany (the manifestation of the Christ-child to the wise men) and were designed around stained glass figures salvaged from the burned church.

The corner now occupied by the narthex and forecourt was not part of the original church. The four-story shop-and-apartment buildings that stood there were acquired and torn down as part of the rebuilding program.

The old church filled approximately the area of the present nave and was completed in 1870. It was designed by Napoleon LeBrun (who designed, among other landmarks, the nearby Metropolitan Life tower). In form, it was a basilica of austere Medieval Lombard style, quite uncommon in America at that time.

The new building is most noteworthy for the extent to which appearances have been manipulated in its design—the way the exterior has been made into expressive sculpture and the space in front made to look larger than it is. The more matter-of-fact interior is, by contrast, a letdown.

The forecourt and the forms around it are undoubtedly positive contributions to the cityscape—at least as long as the other three corners at this intersection remain solidly built up. In a crowded neighborhood such as this, however, it is too bad that this enticing space cannot be more useful to the public.

FACTS AND FIGURES

Church of the Epiphany (Roman Catholic), New York, N. Y. Architects: Belfatto & Pavarini. Engineers: Fraioli-Blum-Yesselman (structural); Krey & Hunt (mechanical). General contractor: T.G.K. Construction Co. Building area: 24,950 sq. ft. Cost: \$1,162,000 (not including land costs, fees, financing, or furnishings).

PHOTOS: Clara Aich and George Senty.



The first 50 stories. We're half as tall as we're going to be.



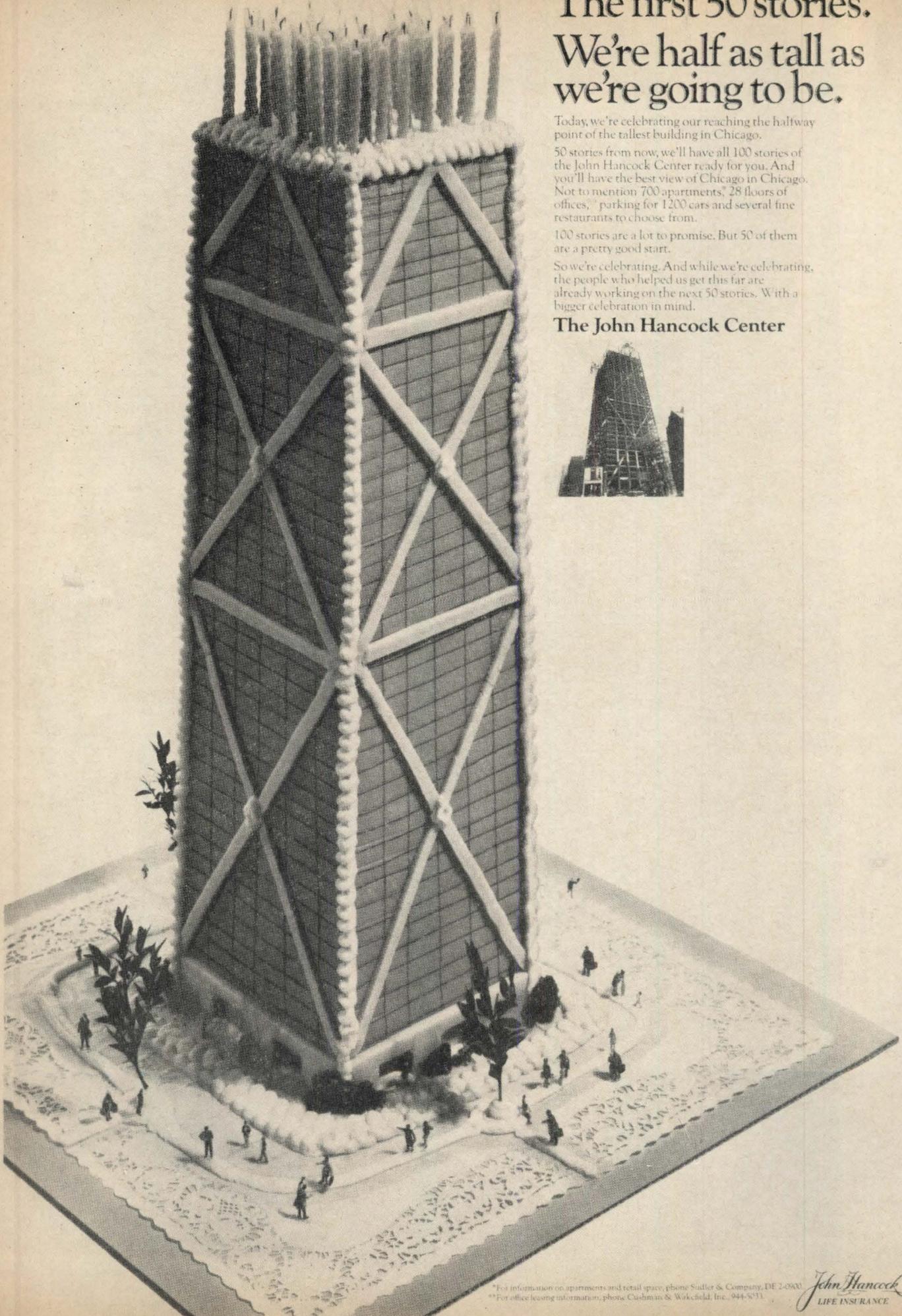
Today, we're celebrating our reaching the halfway point of the tallest building in Chicago.

50 stories from now, we'll have all 100 stories of the John Hancock Center ready for you. And you'll have the best view of Chicago in Chicago. Not to mention 700 apartments,* 28 floors of offices,** parking for 1200 cars and several fine restaurants to choose from.

100 stories are a lot to promise. But 50 of them are a pretty good start.

So we're celebrating. And while we're celebrating, the people who helped us get this far are already working on the next 50 stories. With a bigger celebration in mind.

The John Hancock Center



*For information on apartments and retail space, phone Suller & Company, DE 2-0900.

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FORUM CONT'D

the legislature has never been able to agree on all the details. "There are 122 'architects' in the state legislature," he says. "Each one knows how the house ought to be designed, what should be in it, how much it should cost, and where it should be built."

The whole mess could be resolved if the legislature would simply appropriate enough funds to get the competition-winning design built on the official site—and Dreyfuss says he would be as pleased as anyone to see that come about. But lacking that dim possibility, he feels the solution proposed by the businessmen is "better than nothing."

DEBUTS

EYE OPENER

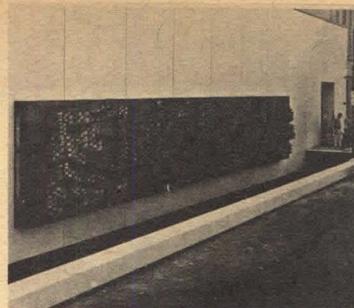
Alumni and friends of the Yale School of Art and Architecture would do well to subscribe and/or contribute to *Eye*, a new magazine devoted to the interrelationship of art, architecture, graphics, and planning, not to be mistaken



for another magazine of the same name, announced by Hearst. The publisher of this, the first *Eye*, is The Yale Arts Association; the designer of the handsome format and first cover (above), is Bradbury Thompson.

CHICAGO'S "MODERN"

The new Museum of Contemporary Art in Chicago opened last month with two exhibitions that clearly define the aim of its director, Jan van der Marck: to document contemporary esthetic issues



that are most timely and relevant.

A main-floor exhibition, "Pictures to be Read—Poetry to be Seen," consists of 68 works by 12 unknown or little-known artists. It illustrates the interplay between the literary, pictorial, and performing arts. The creations range from diminutive boxes to room-size environments, most of them done in the past four years. In the basement gallery is an exhibition of Claes Oldenburg's "Projects for Monuments."

The two-story museum is a former office building handsomely remodeled by Architects Brenner-Danforth-Rockwell. The white exterior facade is adorned with a 50-ft.-wide copper bas relief (above) by the late Zoltan Kemeny.

NEIGHBORHOOD SMITHSONIAN

A different kind of cultural self-help program was started last September with the opening of a branch museum of the Smithsonian Institution in a Washington, D.C., slum area. The idea was conceived by S. Dillon Ripley, secretary of the Smithsonian, who wanted to see the contents of a museum brought to people who have never entered one, and to make the experience "as natural as patronizing the supermarket."

After a survey of various underprivileged neighborhoods in Washington, the Anacostia section in the Southeast was settled on for the pilot project, and the old Carver Theater (below) was chosen as the site. The task of renovating the theater and of converting the sloping floors into an exhibition area was undertaken by the local community with help from the



Neighborhood Youth Corps, local Boy Scouts, and youngsters from the Trail Blazers, a summer work program for 13- to 15-year-olds.

Its rotating exhibits will be made up of objects from the Smithsonian Institution, selected by a neighborhood advisory council. The first exhibit (below) is geared to children and has a Mercury space capsule; a small zoo; a little theater featuring a stage and closed-circuit TV over which chil-



dren can watch themselves rehearse; a walkthrough reproduction of an Anacostia store of the 1890s; racks with shoe-box collections of coins, stamps, minerals, insects, and birds.

The director is John R. Kinard, 30, a Washington-born youth worker, who for the last year was program analyst with OEO.

LANDMARKS

HOW TO EMBALM A BUILDING

Bernard Maybeck's classicist Palace of Fine Arts in San Francisco was built in 1915 as part of the Panama Pacific International Exposition, which celebrated the opening of the Panama Canal; it housed an exhibit of contemporary painting and sculpture. The Palace, which consisted of four unconnected structures in a sort of Graeco-Roman-Renaissance hybrid style, surrounded by trees and fronting on a tranquil lagoon, attempted to capture a mood dear to Romantic imagery. It also embodied Maybeck's somewhat misguided esthetics whereby architecture was to produce a predetermined feeling in the viewer; in this case one of "sadness modified by the feeling that beauty has a soothing influence."

This melancholy warmed the heart cockles of the local citizenry and saved the structure from the scrapheap to which the temporariness of its function and the impermanence of its materials (wood

FOOTNOTE

Make a wish!—On September 27, the *Chicago Daily News* ran the advertisement shown on the opposite page. The occasion was the completion of the 50th floor structure of Chicago's 100-story John Hancock Center (see page 56). We liked the cake, but we didn't think too much of those burning candles: not long ago, when somebody set fire to a building in Chicago, the whole town burned down—bad news for Chicago, and bad news for insurance companies, too!



and plaster) might have decreed it. Even Maybeck enjoyed the process of deterioration, which heightened the Romantic feeling he had strived for.

Repairs were carried out intermittently. But after World War II, private groups proposed that it be made into a permanent structure. In 1957, the state passed a bill making the Palace a historical state park and providing \$2 million for its restoration. These funds were matched by San Francisco millionaire Walter Johnson and supplemented with city funds and private donations. The passage of a bond issue supplied the remainder of the required \$7.4 million.

Poured concrete was used for the most part but column capitals, urns, and all figures were precast. Ornamentation was reproduced mechanically, partly from the originals (which were removed), partly from photos, where originals were missing. Forms for fluted columns were glass fiber, those for

highly ornamental work, plaster.

What the city will do with this replica (left) of what was a fanciful simulation to begin with, is still an open question. Anyway, the simulation of the simulation was the work of Architects Hans Gerson and Welton Becket.

THREATENED BACKDROP

The Farnsworth House on the Fox River, near Plano, Ill., (below) was the first house Mies van der Rohe built in the U.S. (1950-51). We said of it at the time, "... [it] has now no equal in perfection of workmanship, in precision of detail, in pure simplicity of concept" (Oct. '51 issue). It has since become an internationally known landmark, included in every textbook on modern architecture, and it should be a source of pride for Kendall County, its location.

It *should* be; alas, the site of the house (i.e. the backdrop to it) will be virtually destroyed if a plan for the construction of a bridge over the Fox River goes through. Condemnation papers for the use of her land have been served on Dr. Farnsworth. The bridge — which would replace an early iron bridge — would come to within 192 ft. of the house, or about 175 ft. closer than the site of the old bridge. Moreover, the proposed grade opposite the house would be 10½ ft. higher in elevation than the existing grade, requiring a high fill and wide right-of-way for one of the bridge approaches.

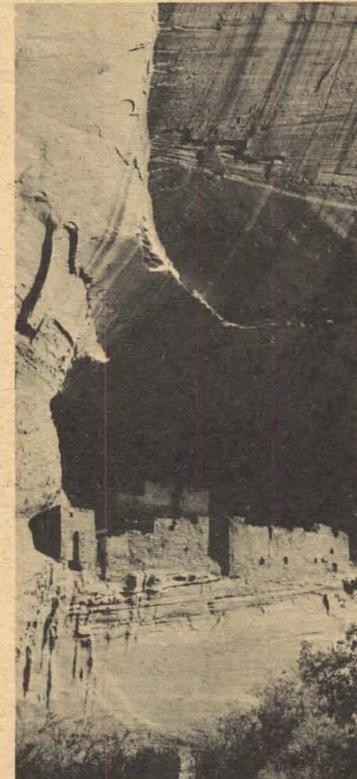
An alternate site, which would meet state specifications and not affect the Farnsworth property, has been proposed by the engineering firm of Walter E. Deuchler Associates. It is being considered by the Kendall County Board of

Supervisors, who are being urged on by architects throughout the Chicago area and beyond. Hopefully they will listen.

BOOMS

SUSPICIOUS DAMAGE

Charges are flying thick and fast concerning the effects of sonic boom. According to the Sierra Club, sonic booms from military aircraft have triggered rock-falls that crushed cliff dwellings at Canyon de Chelly National Monument (below, photo taken before damage). Sonic booms have



reportedly also toppled pinnacles in Bryce Canyon National Park, and have damaged other wilderness areas.

Attempts to verify the damage as resulting from supersonic aircraft have been inconclusive, but an official of the National Park Service suggests that there is "sufficient suspicion of relation between the two that a study is being made by the several agencies involved."

FIRST ORDINANCE

In the meantime, Santa Barbara, California, has passed what is believed to be the first municipal ordinance outlawing sonic booms. More accurately, the ordinance makes it unlawful "to pilot any aircraft over and in the vicinity of Santa Barbara at supersonic speeds so as to cause loud,

sudden, and intense sonic boom impacts in the city of Santa Barbara."

The mayor voted the single "nay" vote, feeling that the law would not be enforceable. But the sponsor of the ordinance (citing injury to persons and damage to houses) said, "We are not attempting to prohibit supersonic flights or military maneuvers or to interfere with them in any unreasonable manner. We are merely proposing that unnecessary flights over or immediately adjacent to this city at unreasonable and unnecessarily low altitude be prohibited."

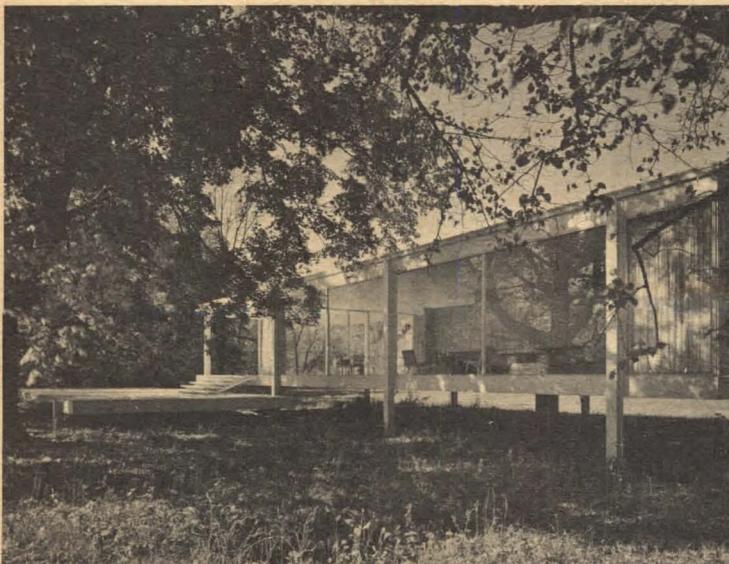
GROWING OPPOSITION

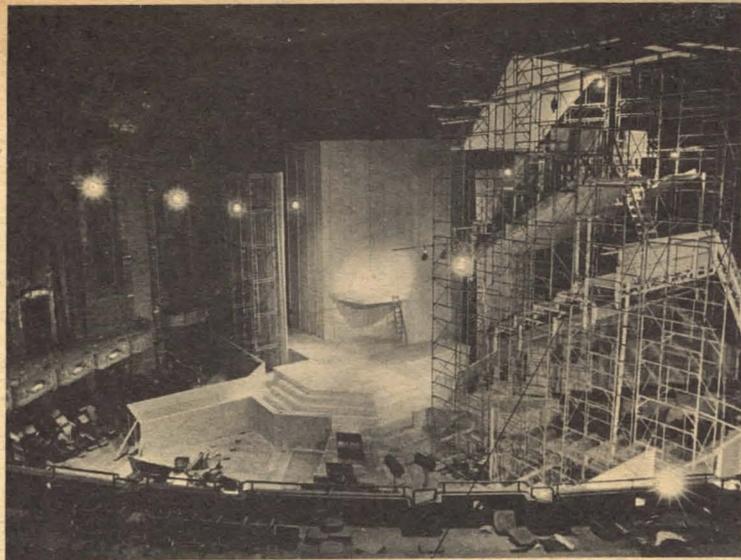
Also in the meantime, the Citizens League Against the Sonic Boom has grown from nine charter members in March, 1967, to a nationwide group of almost 1,500, now doubling in size every three weeks. League members pay no dues and have two things in common: "a dedication to the individual's right to peace and quiet in the home, and a feeling of incredulity that our government might pay out billions of dollars to create a source of sonic pollution that could harass 50 million people hour after hour, day and night, weekdays and holidays."

The group's fact sheets indicate that 150 SSTs, if put into routine use over the U.S., would do more than \$1 million damage each day, to window glass, plaster, etc. Tests in Oklahoma City in 1964 virtually split a house in two, for which damage the courts later awarded the owner \$10,000. (More than 4,000 damage claims were filed in the Oklahoma City tests.) In these tests, more than one-quarter of the population declared they would never get used to the booms. The Citizens League estimates the likelihood of 5 billion "man-booms" per day, with booms reaching the ground even when an SST is flying at an altitude of 70,000 ft., and with greater annoyance to persons indoors than out.

As recently as January, 1967, the FAA stated that it was not banning supersonic flight across the U.S. or other land areas. And the Citizens League comments: "Flying over a large city, an SST could bang a million people in 30 seconds. In five minutes an SST could bang every man, woman, and child in Long Island — all 5,000,000 of them . . ."

The Citizens League invites inquiry at 19 Appleton Street, Cambridge, Mass.





PROGRESS

MOCK-UP THEATRE

One man's concept of the ideal theater will be built next year in La Jolla, Calif. At present a full-size mock-up has just been finished (above) at the unused and soon-to-be-demolished Piccadilly Theater in Chicago. It was designed to the specification of English theater director, Michael Langham, in collaboration with Architect Bertrand (Marina City) Goldberg. Langham, who for the last 12 years has been director of the Stratford Shakespeare Festival in Canada, is committed to the idea that a theater must have no technical barriers separating the live player from the live audience. To achieve a greater intimacy between actor and spectator, the orchestra will be limited to 16 rows. He was able to reduce the space between the stage and the last balcony, while retaining a maximum seating capacity, by using balconies that rise sharply, close to the stage. No seat will be more than 65 ft. away from it.

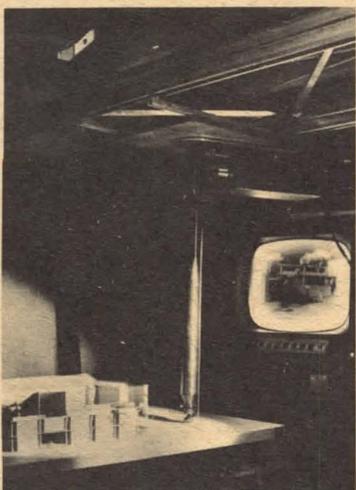
To create a more dynamic flow of theatrical movement, Langham has devised a narrower stage, shaped like an hourglass, which will break down the action into two areas and reduce those "endless processions" of entrances and exits. The rear and permanent stage has a revolving floor for changing the sets. The forestage consists of 3 ft. by 8 ft. hydraulically supported panels that can be operated by pushbuttons to create a variety of patterns and elevations. The back of the stage is set at angles, somewhat like a screen, which further facilitates rapid exits and entrances.

The La Jolla theater will be con-

structed as one unit of a four-theater complex, at a cost of \$4.6 million. It will be financed partly by the University of California in San Diego and partly by private funds. The main theater will be completed in time for a four-play 22-week season beginning in May, 1969. Mr. Langham, who has a three-year contract as artistic director, will probably direct two of the plays.

MAN'S EYE VIEW

VISIT—or Visual Simulation in Time—is the newest way of looking at architectural models (below), making the bird's eye view a thing of the past. Basically, VISIT is an optical system, not new, but newly systematized, that lets the architect (or student, or client) see a model from the viewpoint of a person actually inside, with the added possibility of matching the snorkel's speed of motion to the scale of the model to give the effect of walking or driving through it. Images can be viewed directly through the eyepiece, seen over closed-circuit TV, or recorded on videotape and con-



ventional motion picture film.

"The dimensional order of architecture is space-time," say the developers of VISIT, "and unless it is simulated this way—not statically, in fixed perspective, but dynamically, through movement—it cannot be simulated effectively." Based on existing optical equipment, the system was developed at Rice University as part of a research program on applications of new technology to the study of architecture, a program undertaken by Robert Sobel, assistant professor of architecture, under a grant from Educational Facilities Laboratories.

PEOPLE

QUALITY CHECK

Architectural eyesores in New York City may in the future be prevented or their blighting effect mitigated through the intervention of Mayor Lindsay's newly appointed Urban Design Council. The role of the council will be to advise the mayor on design and planning for city projects and to seek the cooperation of large private and public corporations in its attempt to achieve better design in the city.

The council has no enforcement powers, but the professional prominence of its members—architects, businessmen, leaders in community affairs—will hopefully exert some influence.

The nine unsalaried members are Mrs. W. Vincent Astor, J. Richardson Dilworth, Philip Johnson, I. M. Pei, Chester Rapkin, George N. Lindsay, and Whitney M. Young Jr. William S. Paley is chairman; John David Farley, the salaried executive director.

ARCHITECTURE WITHOUT TEARS

"Like the sack and the trapeze have been replaced by the miniskirt, I think you won't have any more of the dark glass boxes."

Voodoo, free verse, zen proverb? None of these, but part of an address by Edward Durell Stone delivered to (and quoted by) the Marble Institute of America, which presented him with a (marble) bas-relief portrait of himself. The quote was clarified, somewhat, in the next sentence: "I never was caught in that glass box trap, which I found very unsightly, very temporary in appearance, and very impractical." (Sample "glass box trap": The Museum of Modern Art, New York, completed in

1939, and designed by Philip L. Goodwin and Edward D. Stone—below).

He also said, speaking of his General Motors Building, now rising in Manhattan: "I hope this building will start off a new trend



toward buildings that look more permanent and have a light color. I think those black buildings that have been modish in the past look perfectly horrible." Or, as Katharine Lee Bates put it, in *America, the Beautiful*: "Thine alabaster cities gleam/undimmed by human tears!"

BAY AREA PIONEER

To his office staff, Architect Gardner A. Dailey's actions on the morning of October 24 seemed not at all unusual. He calmly dictated a few routine letters and held a couple of routine appointments. He left the office in the early afternoon and, it is believed, drove straight to a parking lot near the Golden Gate Bridge. Then he walked out to the center of the span and leaped to his death. He was 72 years old.

Dailey's friends and associates could offer no explanation for his suicide. Though he had suffered ill health for several years, he was fully active. "He and I had been discussing future plans for the office just the day before," said his associate Alexander Yuill-Thorn-ton. "We have a lot of work. The office is flourishing."

Dailey's death ends a long and influential practice in Bay Area architecture. He and William Wilson Wurster were the first in the area to break away from period styles in residential architecture, establishing a design approach that was widely emulated and came to be known prominently as the "Bay Area Style."

ENCASEMENT LIES IN WAIT FOR ALL OF US

You may have missed the information that November had been designated the first annual "Think-Of-What-You-Can-Replace-With-Plastics" month by Cadillac Plastic and Chemical Co. of Detroit.

But even if you did somehow avoid this knowledge, it may not be too late for you to enter a related contest, sponsored by the same company, described thus:

"National Think-Of-What-You-Can-Replace-with-Plastics Contest.

"Entrants are asked to submit their ideas of new plastic applications to Cadillac Plastic. Winning entries will be awarded prizes in seven categories: Best Plastic replacement for steel; Best Plastic replacement for bronze; Best Plastic replacement for brass; Best Plastic replacement for rubber; Best Plastic replacement for hardwood; Best Plastic replacement for aluminum; Best Plastic replacement for glass.

"First prize in each category is a gold plated replica of Rodin's Thinker (above) imbedded in clear acrylic measuring more than 8 in. by 6 in. by 5 in. Second prize is a silver-plated Thinker imbedded in a similar sized acrylic block."

What the sponsor has in mind, the plastics company has explained further, are such ideas as sprockets of cast nylon to replace 30-tooth steel gears on main drives of centrifugal casting machines; or a plastic conveyor flight "like HMW '1900'" to replace cast iron flights. That's what they said, cast iron flights.

Details aside, a reservation one could raise about this contest is that the list of materials suggested for replacement by plastics should certainly be extended. For example, wouldn't it make sense to replace some of our flesh and blood politicians with plastic versions, which would wipe



clean more easily, would glint even while asleep, would not have that cold feeling of steel or bronze when touched, and would wear better than cast iron? Even some of our senators might be enhanced with plastic—a touch of it on Senator Robert Kennedy's tousled mane, for example. Take Senator Everett Dirksen for another subject; his famous oratory surely deserves plasticizing. Those frequent and felicitous utterances of his in the Senate Chamber should be kept glistening in the air. Why not catch each word within a separate plastic bead, and string these into endless necklaces festooning them from the Senate lighting fixtures to gleam on into eternity, stirring faintly in the air conditioning?

Plastic, of course, does unfortunately have a memory; it seeks to return to the shape of its original casting, which could be a disadvantage in routine politics. But plastic has plenty of structural strength under normal conditions. We already have weight-bearing translucent plastic furniture on the market. (Come to think of it, have you ever seen a lady in a bathing suit sitting in one of those transparent chairs, flesh crushed like ice cream into the bucket seat? It is an argu-

ment against them.) There is also much recent progress in the making of spun plastic houses by the airframe industry on the West Coast.

One cannot overestimate the versatility of this immaculate, gelid set of substances, the plastics. If anything, the plastics are probably too adaptable, so glib that they have not yet acquired dignity as a material. At the moment the only really individual use of plastic I can recall is in containers for other chemical products, such as drugs. There it develops its own sensuousity. But think of the thousands of living rooms whose flowered furniture wears squalid, if spotless, plastic covers, and of the little plastic rain covers for men's hats.

Plastic sprockets are fine, but too often when plastic replaces another material in buildings it ends up really just encasing the other material, as in the plastic laminates of wood, which preserve the wood grain as a kind of desperate identification underneath. In this strange way plastics succeed in smothering the identity of other building materials, without acquiring character of their own. If this sounds worried, perhaps it is rightly so.

Move over, Rodin.

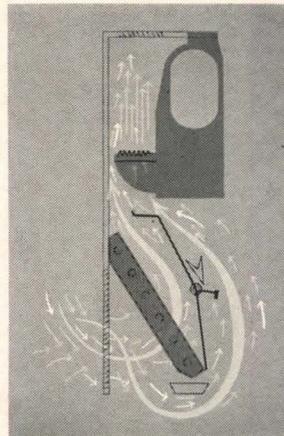
FOOTNOTE

Photographs: Page 29, Herblock in The Washington Post © 1967. Page 30, The Museum of Modern Art (left); Fred W. McDarrah (center); Art Frisch (top). Page 31, Charles Kaswan (right). Page 89, The Smithsonian Institution (center and right). Page 90, C. Ray Moore (left); Hedrich-Blessing (bottom); Hans Wendler (center). Page 91, Chicago Daily News (top); Frederick Gardner (bottom); Robert Damora (right). Page 92, W. B. Doner & Co.



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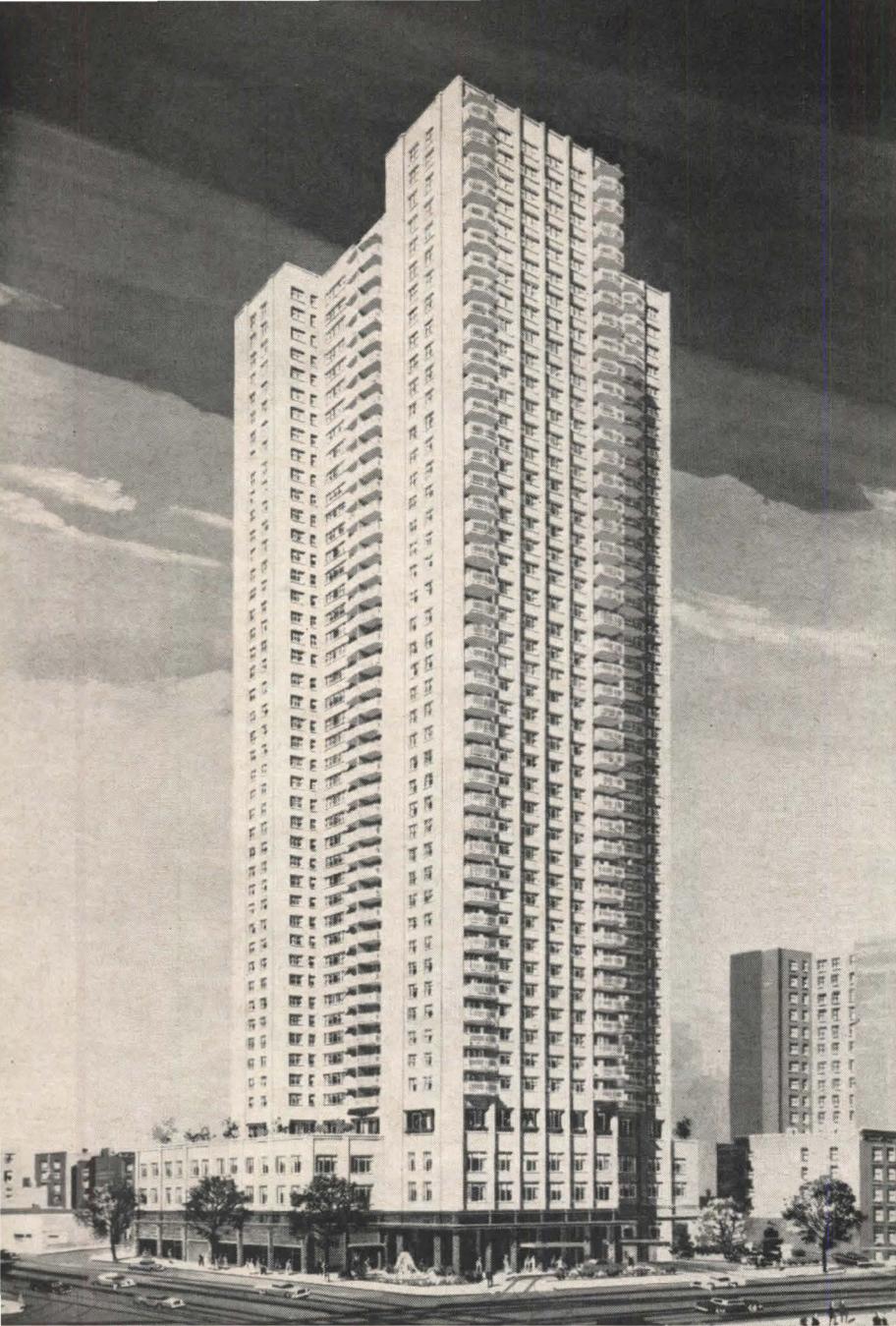
matic bypass control described here, these units come with a manual bypass or with water modulating capacity control. Models may be furred-in or installed in cabinets. Cabinets and accessory components offered in 7 decorator colors. All models ARI certified.

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THE EXCELSIOR, New York, N. Y.; Owner: GALAXY REALTY CORP.; Architect: PHILIP BIRNBAUM; Structural Engineer: ROBERT ROSENWASSER; General Contractor: STARR-BROTHERS AND EKEN; Superstructure Contractor: THE DIC CONCRETE CORP., Elmont, N. Y.; Ready-Mixed Concrete: TRANSIT MIX CONCRETE CORP.; Lightweight Aggregate: NEW YORK TRAP ROCK CORP., West Nyack, N. Y. (All of New York, except at noted) • The "Excelsior," a 47-story concrete apartment structure, has 371 residential suites on its top 42 floors. Lower floors are reserved for commercial purposes.

Hosted by Lone Star, Spain's Sindicato de la Construcción was one of several groups that toured the site of this record-breaking building.

The topping-out of the luxury apartment house took place 36 years after another historic project by the same contractor—the Empire State Building.



PREVIEW

Two castellated towers will guard a new Intermediate School (I.S. 29) on Manhattan's Upper East Side, designed by Morris Ketchum, Jr., & Associates. The towers and the wall linking them are all that remains of the Squadron A Armory, which once covered the whole city-block school site (94th to 95th St., Madison to Park Ave.).

Once the armory closed down, its site was an obvious location for a school; its proximity to

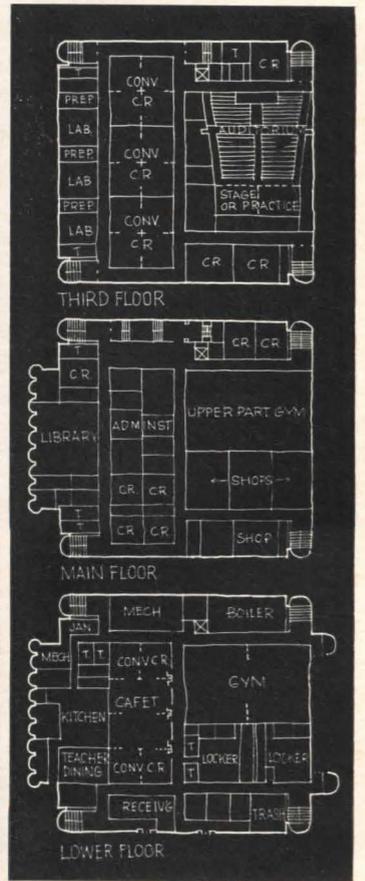
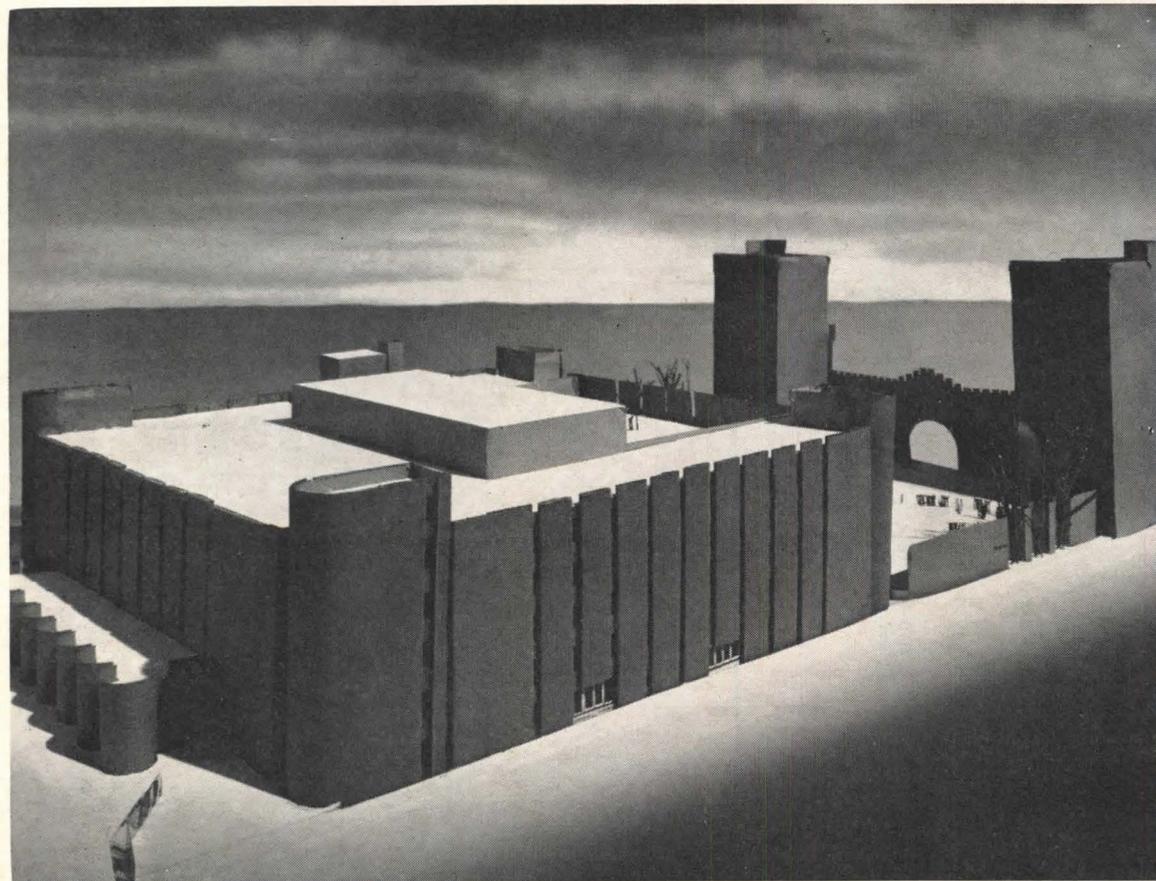
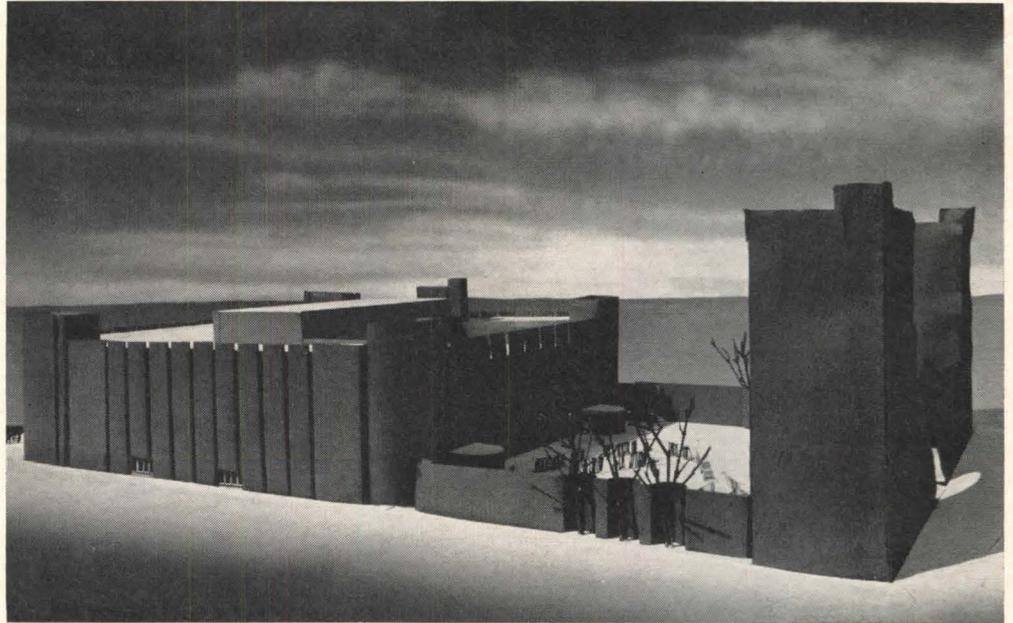
Harlem was ideal for integration, and the cost of other land nearby was prohibitive. The Municipal Art Society and the New York Chapter AIA made futile proposals that the vast interior be converted to a sports center, or that a school—if inevitable—be built within its shell.

After the wrecker's ball had struck, it was decided that the western bastions could be saved as assets to the new school. To re-

late their building to the monumental remains, the architects enclosed it with solid brick walls, cut by narrow view slits—a good solution for an air-conditioned school on noisy city streets. Stair towers became corner turrets.

Behind its rugged walls, the 1,800-student school will house three self-contained 600-student subschools—one on each of the top three floors. Most of the shared facilities will be on two lower floors.

CITADEL OF LEARNING



(continued on page 102)

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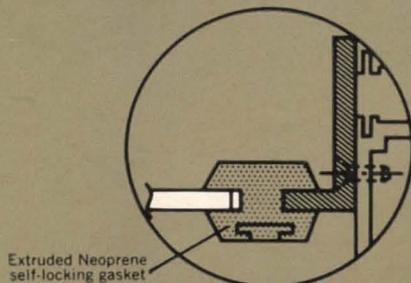
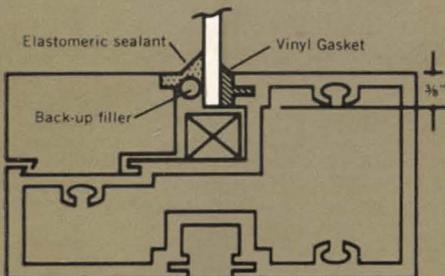
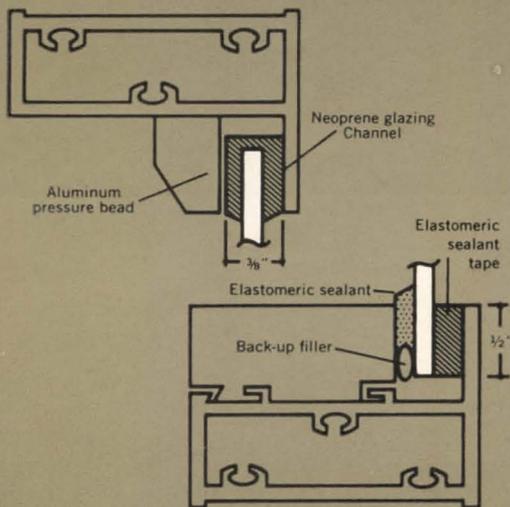


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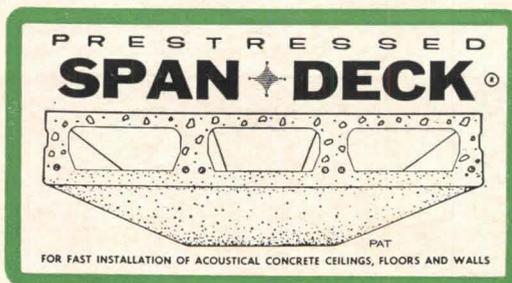
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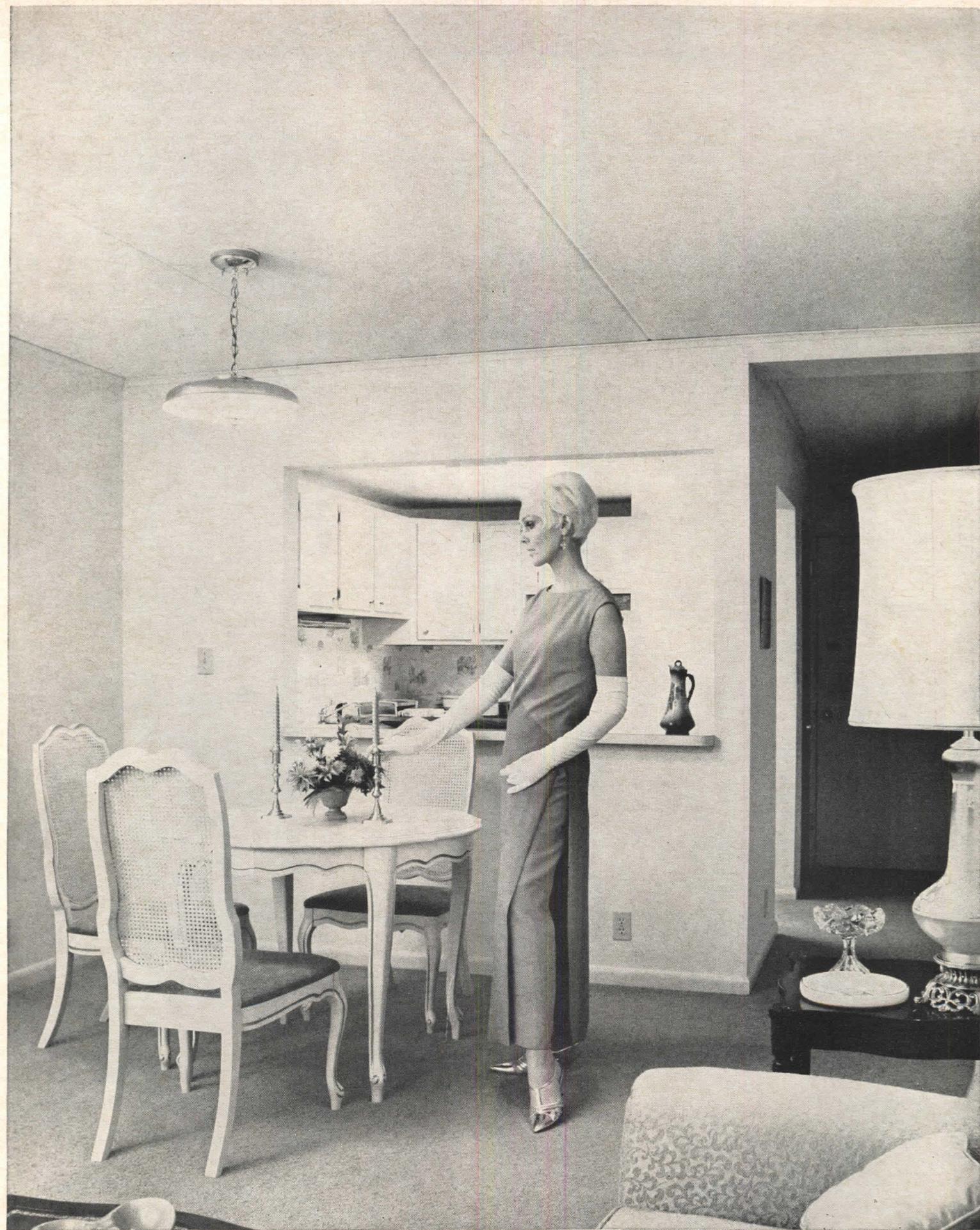
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PREVIEW

Episcopal Mission Housing, a moderate-income (221d3) project for a site near downtown Hartford, Conn., will be laid out along two pedestrian streets that cut across its irregular site (plan-aerial view below). Architects Huntington, Darbee & Dollard have arranged the 88 duplex unit of the project in V-shaped structures that will advance and retreat along these walks to form courts (plan, middle right).

Entrances to the units will be from these public, largely paved, spaces. At the opposite end, the units will open toward private gardens, with green spaces beyond.

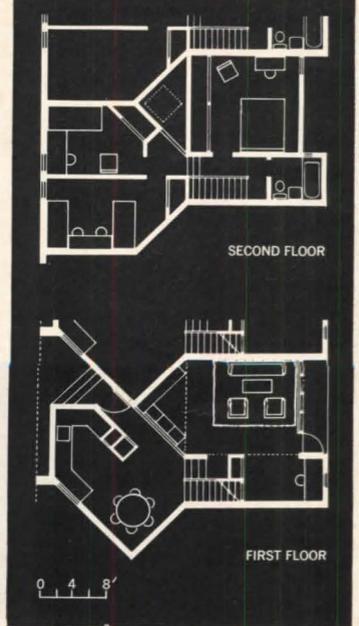
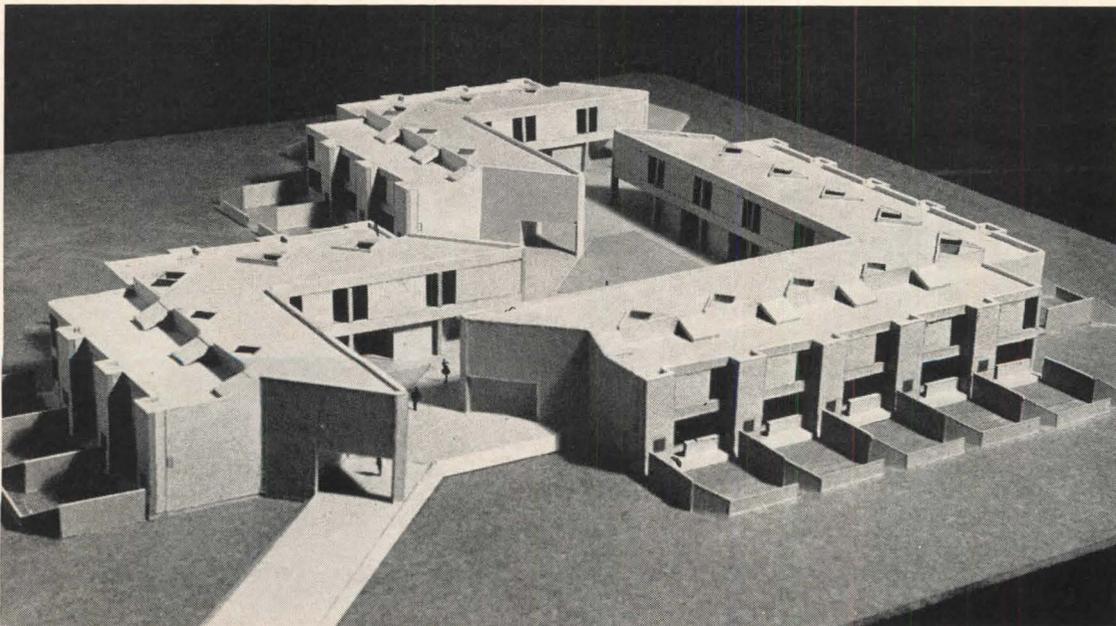
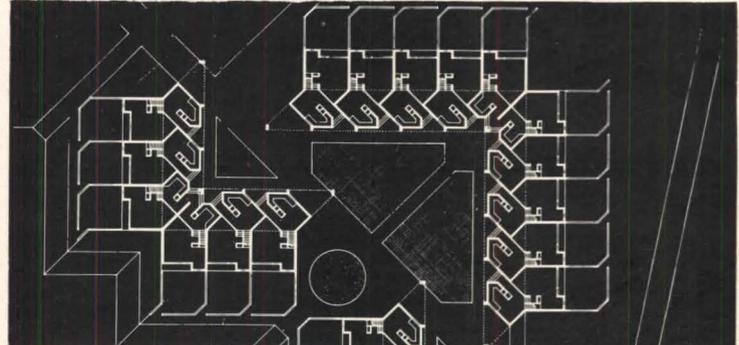
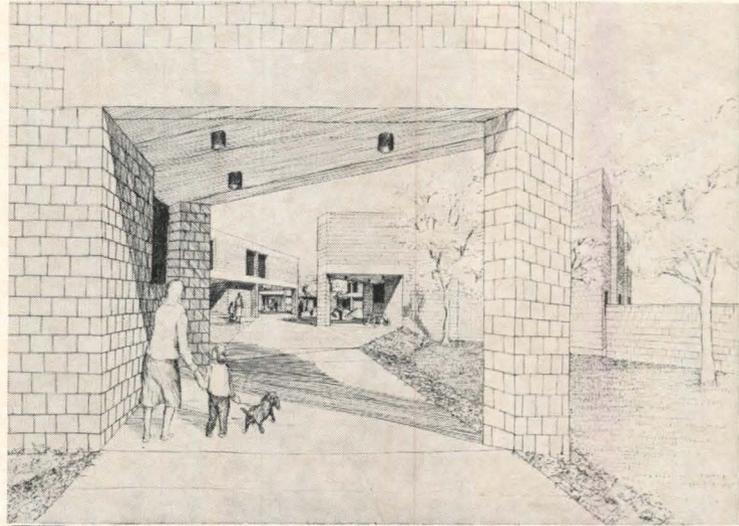
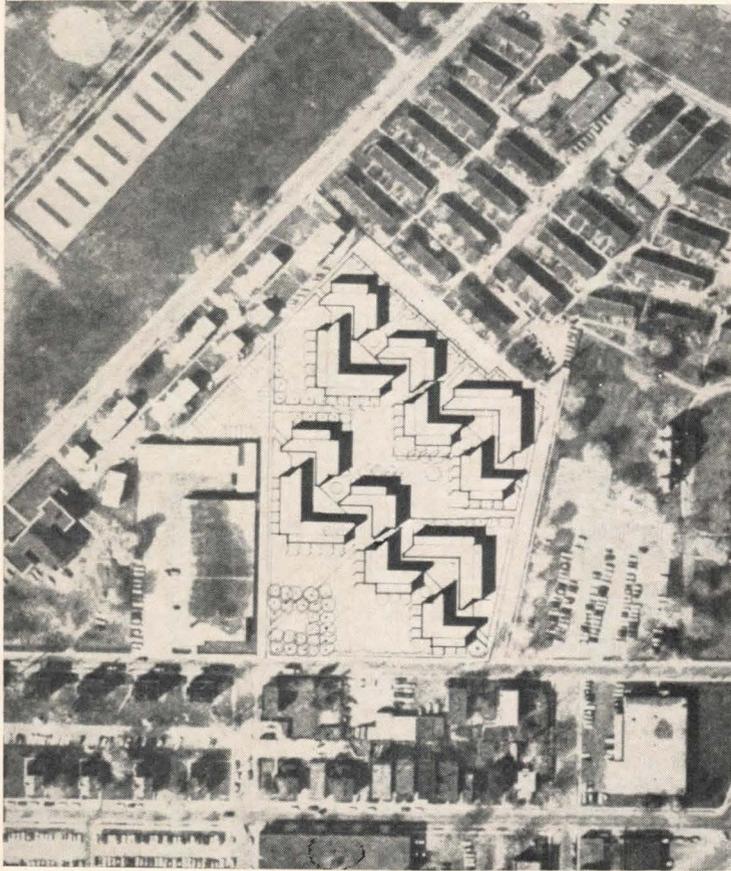
All units are similar in plan, but the three bedrooms of the typical upper floor (plan bottom right) are reduced to two where units converge at the point of the V's, and increased to "3½" in the end units. The "half" is a partitioned alcove that will extend over

the walk to form one of the portals along it (sketch and model).

Cars will have to be parked at the edges of the site, but service and delivery trucks will be able to reach the units along the walks, using alternate approaches, if necessary, to avoid portals.

The buildings will be supported on concrete block walls, with conventional wood-joint floors. Precast lintels will span the many ground-floor recesses.

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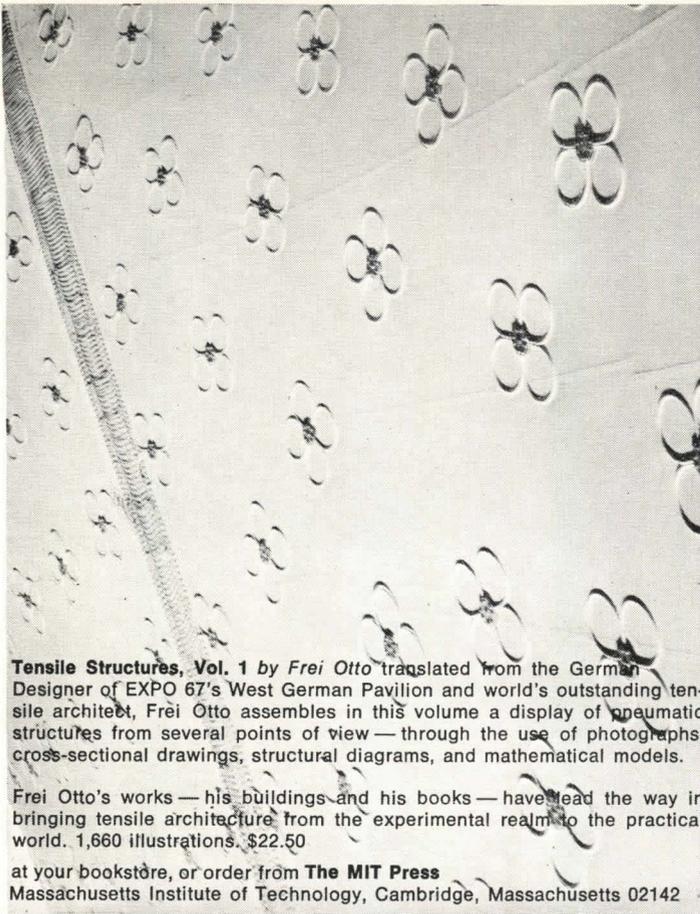
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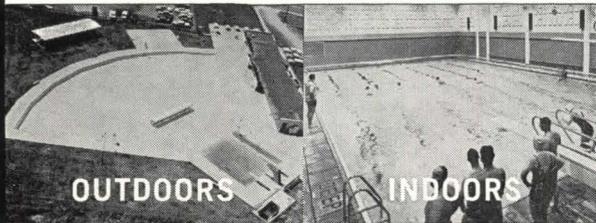


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BOOKS

(continued from page 65)

THE ANXIOUS OBJECT. Second Edition. By Harold Rosenberg. Published by Horizon Press, New York, N. Y. 272 pp. Illustrated. 6¼ by 9¼ in. \$5.95.

REVIEWED BY LESLIE POWELL

Harold Rosenberg has become the spokesman and interpreter of modern painting and sculpture and in this second edition of his most recent book, *The Anxious Object*, has added several essays of historical interest to the original text.

The anxiety felt by those artists in revolt against the Academy and expressed in the deformation of objects in their canvases has given way to a cool formalism in today's production, such as Alber's serene squares, Newman's striped canvasses, and Ad Reinhardt's black-out paintings.

The new formalism of the hard-edge abstractionist rejects, completely, the fragmentation of reality and chaos out of which de Kooning and his followers created some of their most moving paintings.

In the quite recent past many artists liberated themselves from the principles and practices of the old school in the Abstract Expressionist approach, Pollock in compositions of rhythmic, swirling paint, Klein in a bold calligraphic style, and de Kooning in the interplay of planes and spaces.

Many critics decided that we were ready for a new movement and that Abstract Expressionism and Action Painting were on their way out. We were then offered the West Coast realist painters, who had "gone through" abstract painting and emerged into plain air. Two isolated artists were the distortionist Francis Bacon and John Chamberlain with his wrecked automobile sculpture. Pop Art then emerged as the latest thing. Rosenberg

finds Pop Art lacking in depth and originality, since most of their motifs are slogans, trademarks, and techniques borrowed from commercial art, advertisements, and posters for standard-brand consumer goods. These themes and techniques are merely taken out of context and transposed to a fine arts product displayed in galleries and museums for a sensation-hungry audience. Oldenburg's plaster hamburgers and limp monuments of objects in common use compete with Andy Warhol's soup cans but supercede them in pretension. Lichtenstein takes off comic strips in subject matter and technique, avoiding all nuances and painting quality, nearly all pure camp. Rosenquist's collages of machine parts are combined with seductive glimpses of dolls, enlarged to mural size.

The "constant metamorphosis of the old into the new" is the process practiced by most creative artists and Rosenberg finds that Picasso is one of the most historically conscious of these, ranging freely through past styles and impressing his own style on these interpretations of the past. The personal, individualistic style evolved by the action painters was sufficient evidence that the artists in revolt could find their own identity.

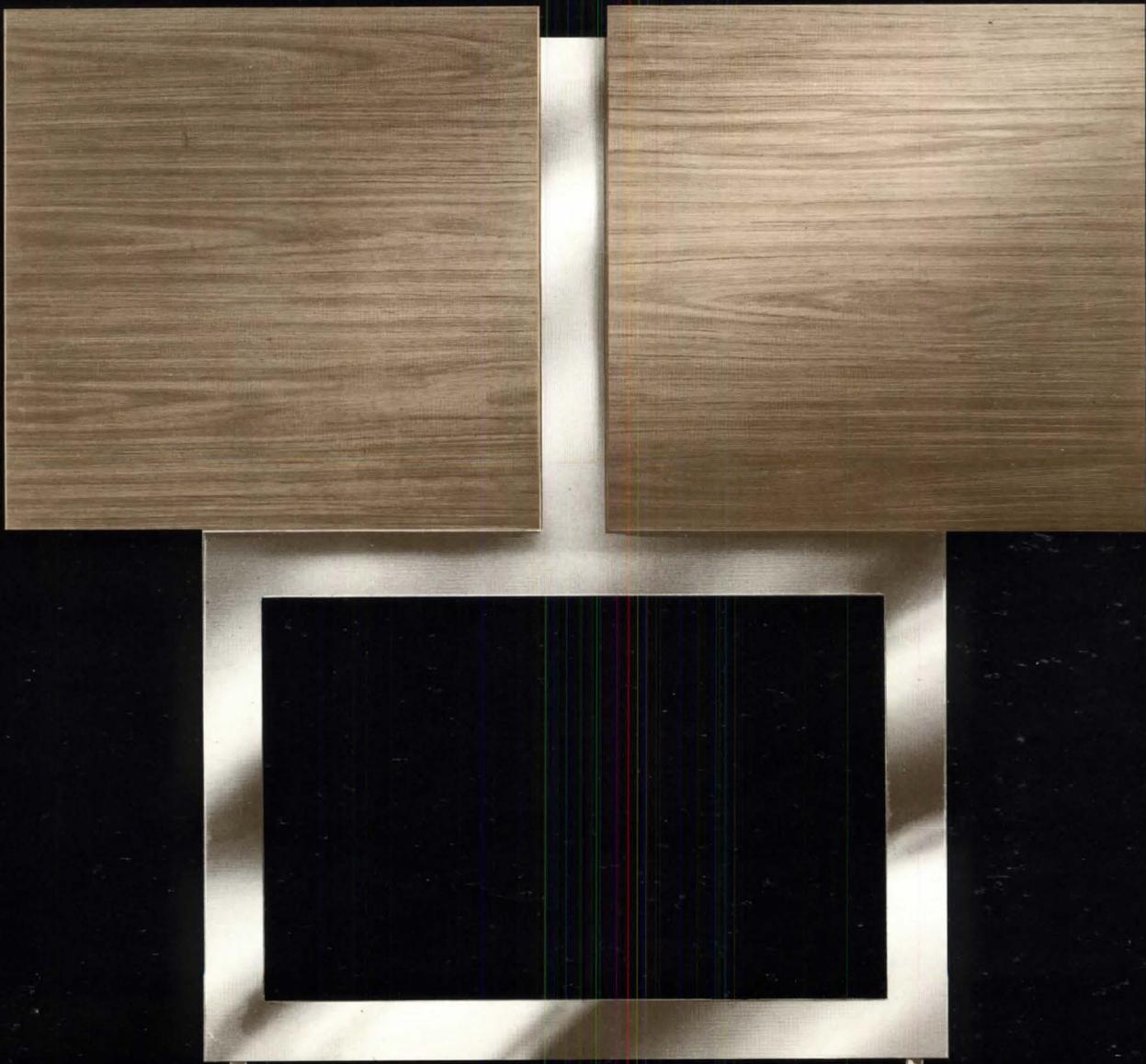
They had rejected moral and social issues and their creations became more metaphysical. Their new configurations often failed to communicate anything to the greater art public except "Art as Art" or a release of creative energy, controlled to a certain extent by a sense of design and color. Can one find that the human being is the subject matter in this type of expression, except by implication?

Several new kinds of abstract art were introduced by the Museum of Modern Art in "Americans '63" in an attempt to replace frenetic expressionism. Richard Anuszkiewics' Op Art designs were shown with Sally Drummond's diffusions, David Simpson's striped jobs, the panels of east numerals and alphabets by Chryssa, and Marisol's caricature sculpture in al-

Mr. Powell, a writer and teacher of art, is himself an artist with many exhibitions to his credit.

(continued on page 108)

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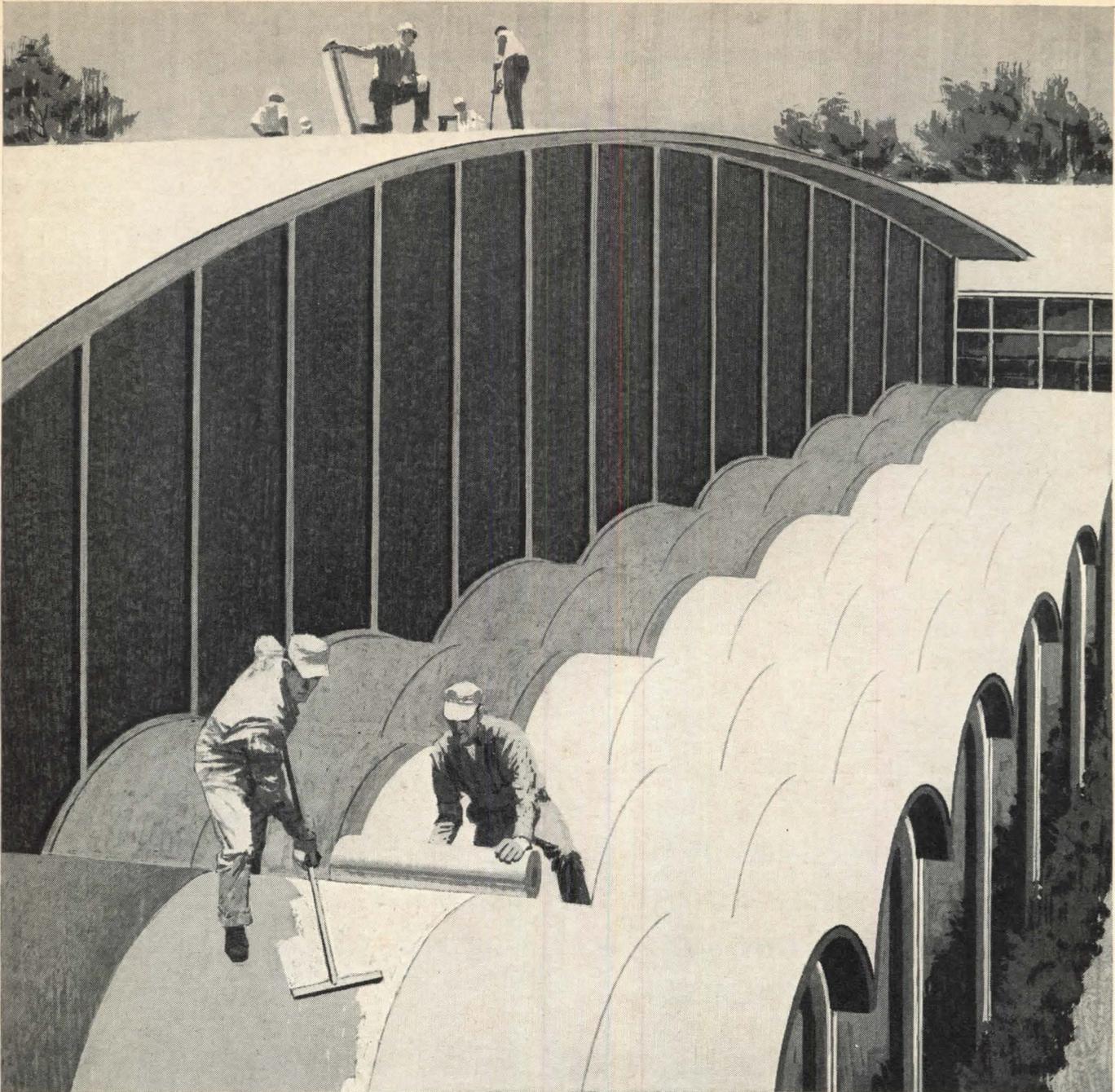
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BOOKS

(continued from page 104)

ternating dimensions, all less dominant than Ad Reinhardt's negations in black blanks, adding nihilism to mysticism and the comic.

The old art game of illusion versus reality is still being played and Rosenberg reminds us the 20th-century artists insist that their creations are not merely reflections of reality but are "new things added to the world," new realities.

The growth and ascendancy of de Kooning is almost too familiar to need reviewing but it is interesting to note that he went through a period of "proletarian art" in the 30s before concentrating on paintings of a semi-abstract nature in which remembered and real images are presented in an interplay of planes and space, climaxed by the big *Excavation* of 1950. From this phase he launched into the "Woman" series of swirling passages of paint, evoking hieratic images of woman as a devouring but coy monster.

De Kooning had attained a speed of execution which continued to describe "slipping glimpses" of the passing world, like vistas seen from a speeding car.

Hans Hofmann rates high in Rosenberg's roster of modern American artists. Although German in origin, he became one of America's most inspirational teachers of painting. After a brief period at the University of California in Berkeley, Hofmann started his school of painting in Provincetown and in New York in 1934 where he expounded his theory of creative art as a science. Hofmann insisted on the "creation of a new art without tradition" and a "created reality based on the inherent life in every medium of expression."

In the chapter, "Art and Identity," Rosenberg credits Arshile Gorky with serving a long apprenticeship to Picasso in his effort to attain mastery. However, the paintings shown in his

one-man exhibition at the Museum of Modern Art in 1962, although fantastic in configuration, were evolved from close-up studies of nature, a cricket's view of grass and weeds in the field.

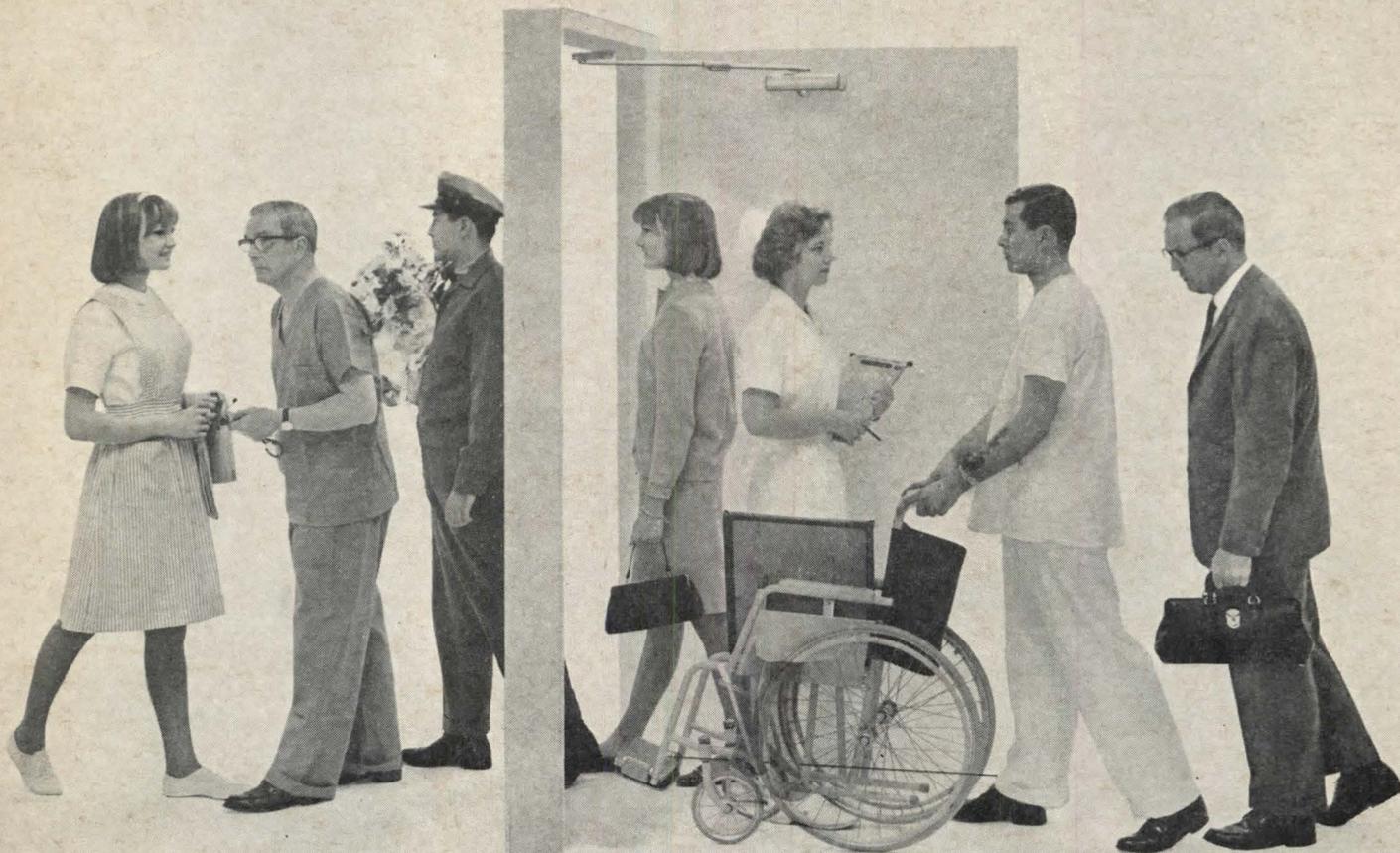
We are reminded of the importance of the big Armory Show of 1913 which introduced to the American public the most advanced art by the French Cubists, Italian Futurists and German Expressionists. An avant-garde audience was formed and the "Tradition of the New" established, which challenged both the creative artists and the art audience still clinging to tradition and the Academy. The repercussions have continued. Now, of course, a new movement in art may appear simultaneously in many countries. French and American Pop artists bear a striking resemblance to each other and new reputations are made annually, everywhere.

The "New Realism" offered as works of art: Rauschenberg's visual puns and panels printed from newspaper mats, Jasper John's American flags and alphabet panels with Cubist overtones, and Wesselman's collages of nudes with real fixtures and shower curtains. These, like Marcel Duchamp's "readymades," deal with several kinds of reality.

Today, collectors may venture into the field of the latest art sensations, be it Pop, Op or Cool, hoping that their acquisitions will increase in value, geometrically, only to find that they have acquired creations by camp followers or works by artists in a state of flux. They should realize that the individualism shown by today's artists is its outstanding characteristic and should be valued as such.

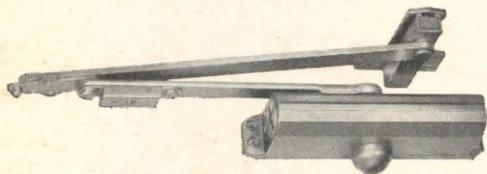
Rosenberg was the proponent of the school of Action Painting; Jackson Pollock, de Kooning and Hofmann were his heroes. The counter schools set up new movements, too easily accepted, but lacking in the earlier concepts and exploiting the popular ideas of advertising art. Rosenberg remains a remote and indifferent figure in what he calls the "desolate 60s."

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Electric Heat Provides Individual Room Control in High-Rise Public Housing Project for the Elderly

EHA CASE HISTORY NO.107
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THE CASE—Alexandria House at Portsmouth, Ohio, is an 86-unit high-rise public housing project, built and operated by the Portsmouth Metropolitan Housing Authority for elderly persons of limited income.

According to Raymond T. Switalski, PMHA's executive director, Donaldson, Donaldson & Wittenmyer, architects and engineers of Portsmouth, were asked to design an apartment building that would provide comfortable living accommodations for approximately 135 people 62 years of age and older; have ample indoor and outdoor recreational facilities; require minimum maintenance, and be economical to own and operate.

THE HISTORY—This eight-story structure in downtown Portsmouth was opened in May 1965 with 86 electrically-heated apartments—42 efficiency, 42 one-bedroom and two two-bedroom units. Each apartment has a separate kitchen equipped

with an electric range, refrigerator and water heater. And each apartment has what amounts to its own electric heating system with individual room control. Electric cable, stapled to the ceiling and covered with plaster, provides thermal comfort to suit the individual. A few second-floor apartments that overhang the first floor have supplemental electric baseboard heat.

The two-bedroom apartments, a lobby, a large community room and kitchen occupy the first floor. A 7½-ton air-to-air split-type electric heat pump provides heating and cooling for the community areas and lobby, as well as a basement clinic, recreation room, laundry room and storage facilities. Basement areas also have supplemental electric baseboard heaters.

Outdoor recreational areas at Alexandria House include a rooftop sun deck and ground-level courts for shuffleboard and horseshoe pitching, garden plots and lounging areas. A parking lot is adjacent to the building.

SEE REVERSE SIDE FOR DETAIL INFORMATION ▶

1 CATEGORY OF STRUCTURE:
High-Rise Apartment Building

2 GENERAL DESCRIPTION:
Area: 49,850 sq ft
Volume: 447,100 cu ft
Number of floors: 8 and a basement
Number of occupants: 135
Number of apts: 86
Types: 42 efficiency, 42 one-BR, 2 two-BR

3 CONSTRUCTION DETAILS:
Glass: double
Exterior walls: 8" brick, 2" polystyrene rigid insulation (R/7), plaster. U-factor: .10
Roof or ceilings: built-up roof, 2" polystyrene (R/7), lightweight concrete deck. U-factor: .09
Floors and galleries: 10" cinder block and lightweight concrete
Gross exposed wall area: 37,469 sq ft
Glass area: 5,065 sq ft

4 ENVIRONMENTAL DESIGN CONDITIONS:
Heating:
Heat loss Btuh: 1,027,313
Normal degree days: 5,000
Ventilation requirements: 8,580 cfm
Design conditions: 0°F outdoors; 75F indoors
Cooling: Community rooms only
Heat gain Btuh: 90,000
Ventilation requirements: 245 cfm
Design conditions: 95F dbt, 75F wbt outdoors; 80F, 50% rh indoors

5 LIGHTING:
Levels in footcandles: 10-50
Levels in watts/sq ft: 1-3
Type: fluorescent and incandescent

6 HEATING AND COOLING SYSTEM:
All of the apartments are heated by electric cable stapled to the ceiling under plaster. A few apartments on the second floor that overhang the floor below have supplemental baseboard heat. The community rooms on the first floor and in the basement are space conditioned by a 7½-ton air-to-air split-type electric heat pump. Basement areas have supplemental baseboard heat.

7 ELECTRICAL SERVICE:
Type: underground
Voltage: 120/208v, 3 phase, 4 wire, wye
Metering: secondary

8 CONNECTED LOADS:

Heating & Cooling (7½ tons)	359 kw
Lighting & Appliances	157 kw
Water Heating	199 kw
Cooking	946 kw
TOTAL	1,661 kw

9 INSTALLED COST:*

General Work (Incl. Site Imp.)	\$816,800	\$16.38/sq ft
Plumbing	82,450	1.73/sq ft
Electrical (Incl. Mech.)	124,900	2.62/sq ft
TOTALS	\$1,024,150	\$20.73/sq ft

*Building was completed 5/65

10 HOURS AND METHODS OF OPERATION:
24 hours per day, seven days per week.

11 OPERATING COST:
Period: 12/23/65 to 12/23/66
Actual degree days: 4,987
Actual kwh: 958,080*
Actual cost: \$14,162.49*
Avg. cost per kwh: 1.48 cents*
*For total electrical usage

Billing Date	Degree Days	Demand	kwh	Amount
1/24/66	1,070	306	126,960	\$1,670.19
2/22/66	1,133	378	137,520	1,921.84
3/24/66	509	288	90,960	1,396.35
4/22/66	547	258	93,840	1,335.74
5/25/66	143	204	60,720	992.39
6/23/66	42	144	45,120	743.24
7/22/66		126	41,280	687.19
8/23/66		126	46,560	712.24
9/22/66	28	138	44,160	723.71
10/24/66	271	204	68,400	1,041.30
11/23/66	520	294	91,200	1,407.59
12/23/66	724	294	111,360	1,530.71
TOTALS	4,987		958,080	\$14,162.49

12 UNUSUAL FEATURES:
The floors are 10" cinder block and lightweight concrete slab with electric heating cable stapled to the underside and plastered. Each tenant has what amounts to his own heating system and can dial the exact degree of heat desired—a very important advantage in housing for the elderly.

13 REASONS FOR INSTALLING ELECTRIC HEAT:
Electric ceiling cable was selected because it is economical to install, requires little if any maintenance, provides individual room control and is economical to own and operate.

14 PERSONNEL:
Owner: Portsmouth Metropolitan Housing Authority
Architects and Engineers: Donaldson, Donaldson & Wittenmyer
General Contractor: Baker & Combs
Electrical Contractor: Kenny Brown & Associates
Utility: Ohio Power Company

15 PREPARED BY:
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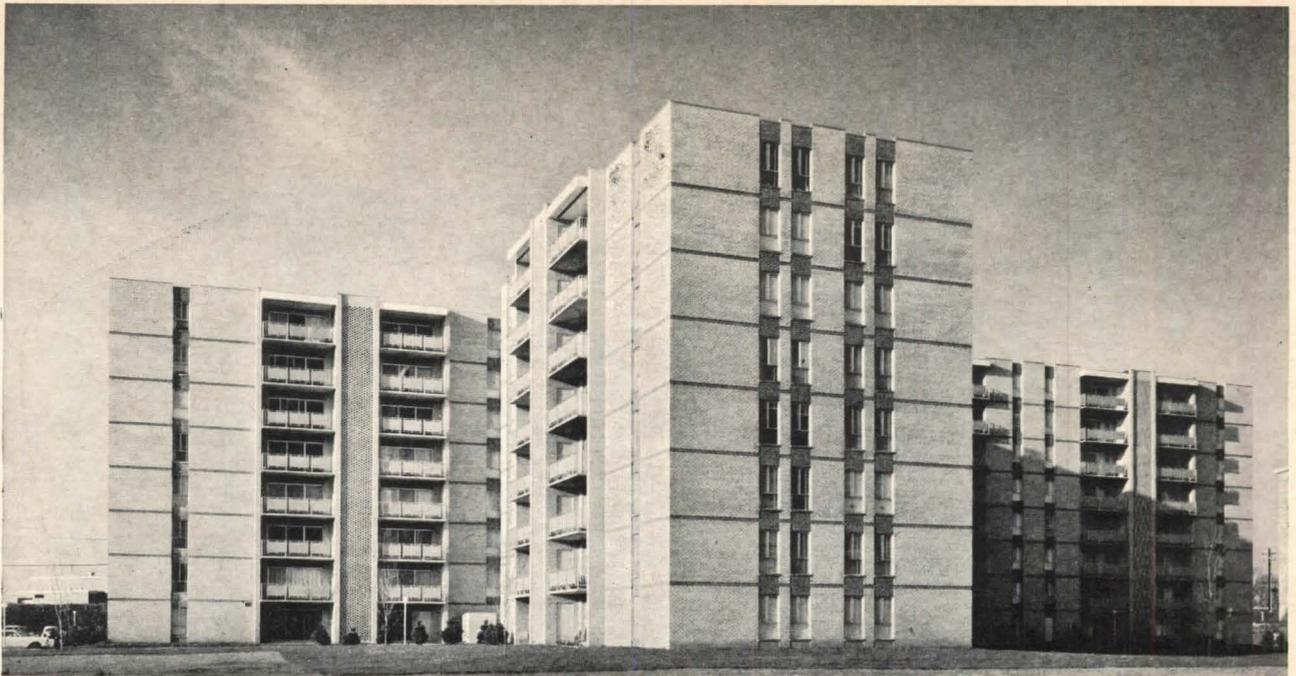
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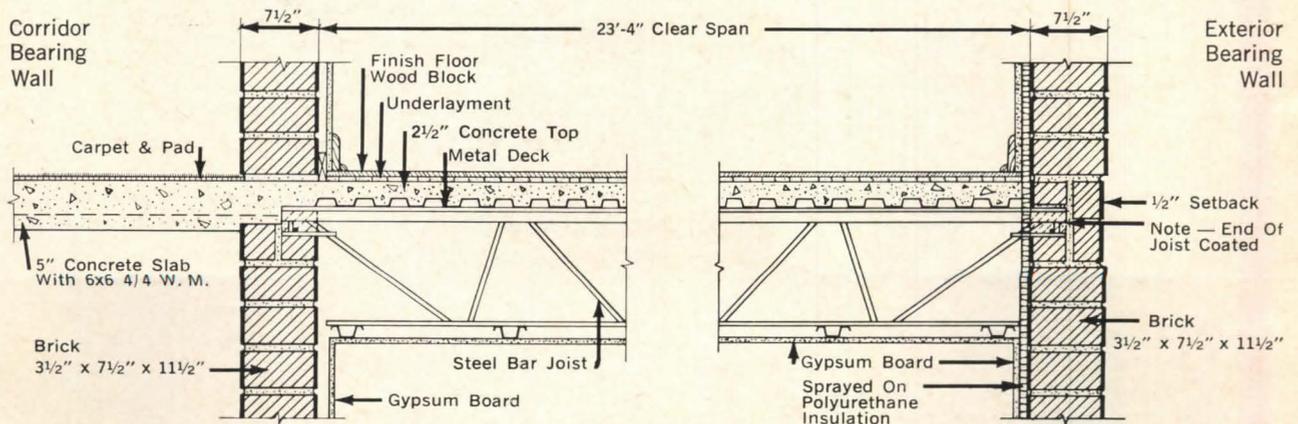
8" BRICK BEARING WALLS IN APARTMENTS

Oakcrest Towers III,
Prince Georges County,
Maryland

8" brick bearing walls are used through the entire eight floors of Oakcrest Towers III, located in Prince Georges County, Maryland, just outside Washington, D.C. Completed at a rate of one story per week, this apartment building contains 161,334 square feet of floor space. The contractor saved more than \$1 per square foot of floor area by using brick bearing walls rather than structural frame. (Speed of erection also offers a savings in interim financing.) Construction was simple because all brick wall thicknesses are identical from the foundations to the roof. In essence, Oak Crest Towers III is a series of eight one-story buildings, one atop another.

Maintenance of corridor and shear walls is eliminated because exposed brick serve as the interior finish and as the structural walls. The 4-hour fire resistance of the 8" brick wall provides safety and low insurance rates. Privacy, extremely important to tenants, comes from brick bearing walls with 58 decibels sound resistance. Oak Crest Towers III is another significant example of the modern brick bearing wall concept, providing structure, finish, fireproofing, and sound control.

Architect/Bucher-Meyers & Associates
Engineer/H. L. Keller & Associates
Contractor/Banks Engineering Corporation



For more information about this exciting economical system of building with brick, call or write

Structural Clay Products Institute, 1520 18th Street NW, Washington, DC 20036 Area Code 202-483-4200

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Judgment at Lauderdale:

SINGLE-SOURCE, COORDINATED LIGHTING WINS APPEAL IN ALABAMA COURT HOUSE CASE!

"Melding a variety of fixtures into a functional yet smooth-looking lighting system can get pretty complicated" says Malcolm E. Smith, A.I.A., of Northington, Smith, Kranert & Associates, architects. "Particularly in the Lauderdale County Court House where we had some definite ideas requiring fixtures not available in standard designs. That's where Day-Brite entered the picture. Besides standard styles which met our requirements, they also had the facilities to come up with everything we needed, on a custom basis. I can't say how much time and trouble was saved by having all our needs filled by one manufacturer. But it was considerable. And we achieved exactly what we wanted, with no design compromises. The results add up to mighty convincing testimony in favor of a one-stop source for lighting."

CUSTOM DESIGNING is just one of several ways in which Day-Brite can make a valuable contribution to your lighting needs. To learn more about these services, contact your Day-Brite representative. He's eager to help. For the best solution to any lighting problem, look to Day-Brite . . . where the creative answers are coming from.

**CASE
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LAUDERDALE COUNTY COURT HOUSE
Florence, Alabama

Architect: Northington, Smith, Kranert & Associates
Consulting Electrical Engineer: Hazzard & Nelson