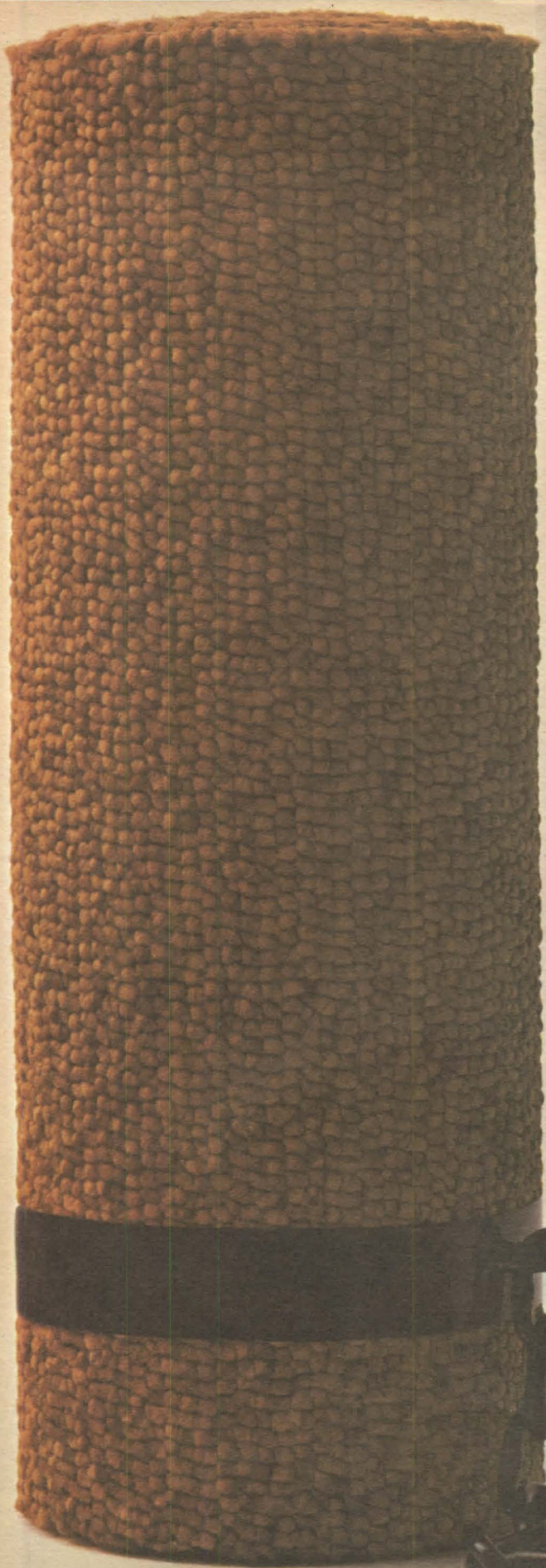




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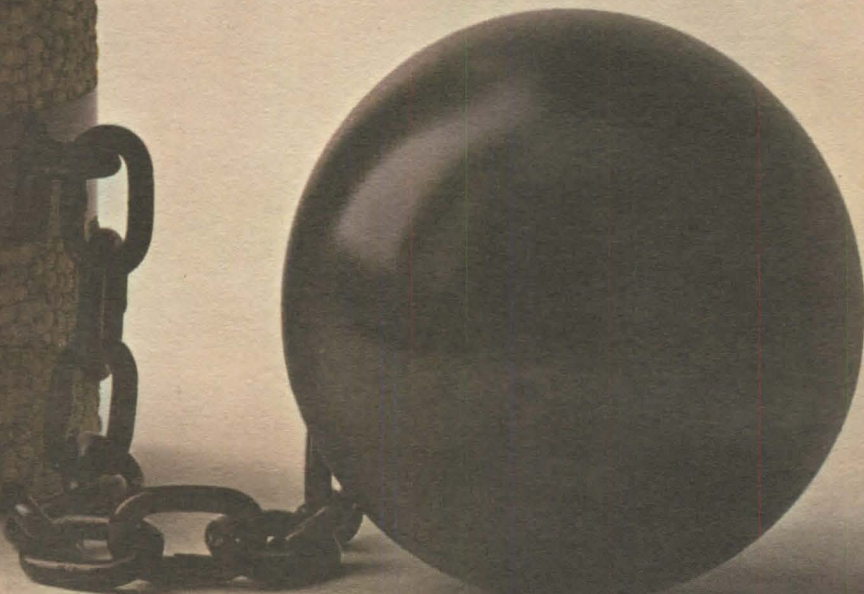
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in Brooklyn, N. Y. (p. 42).

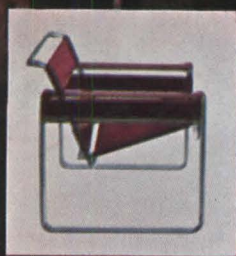
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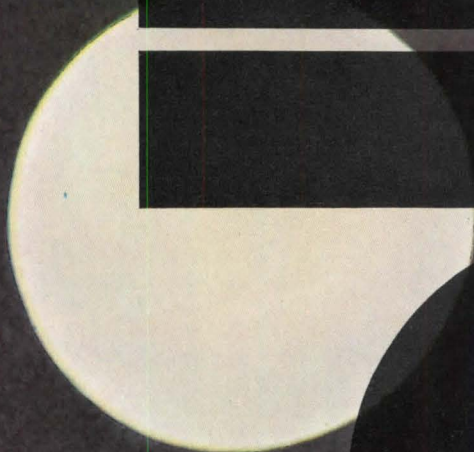
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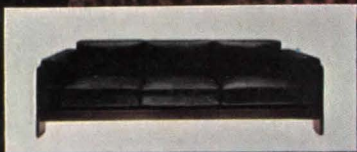
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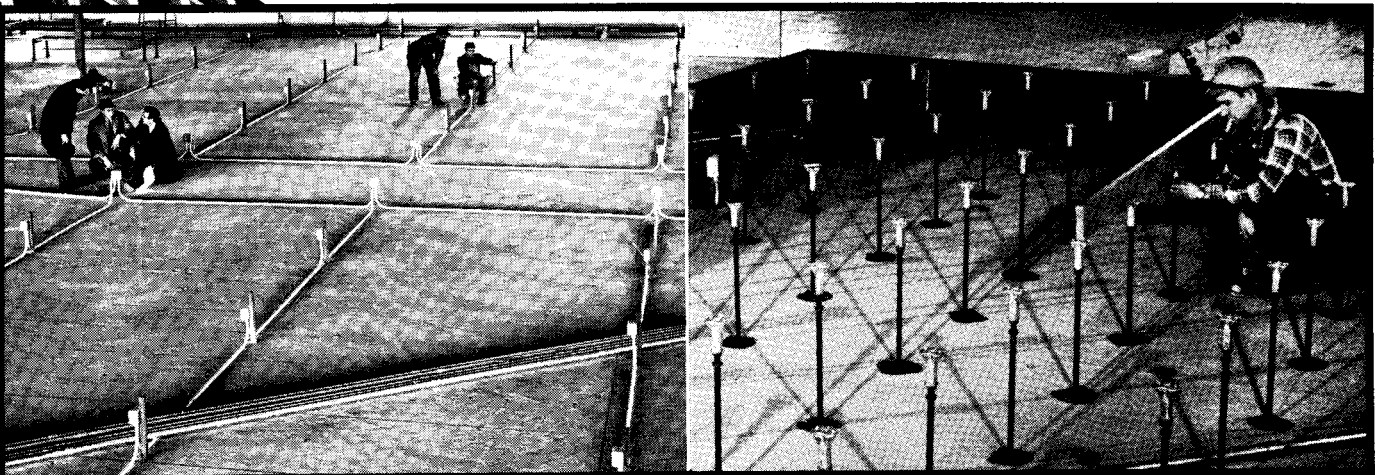
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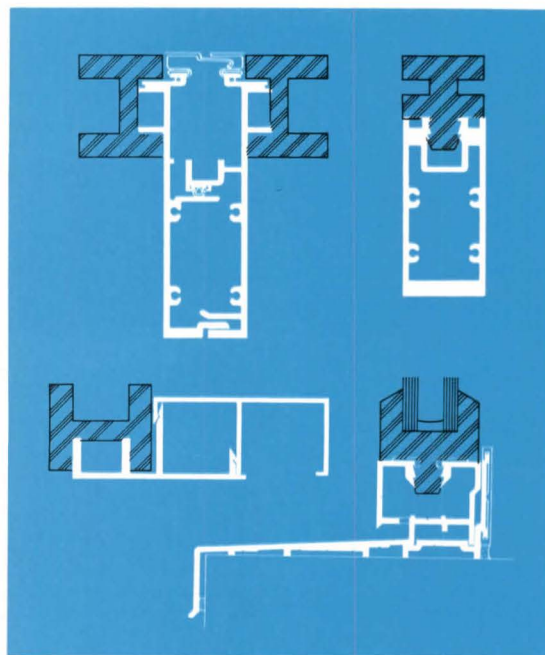
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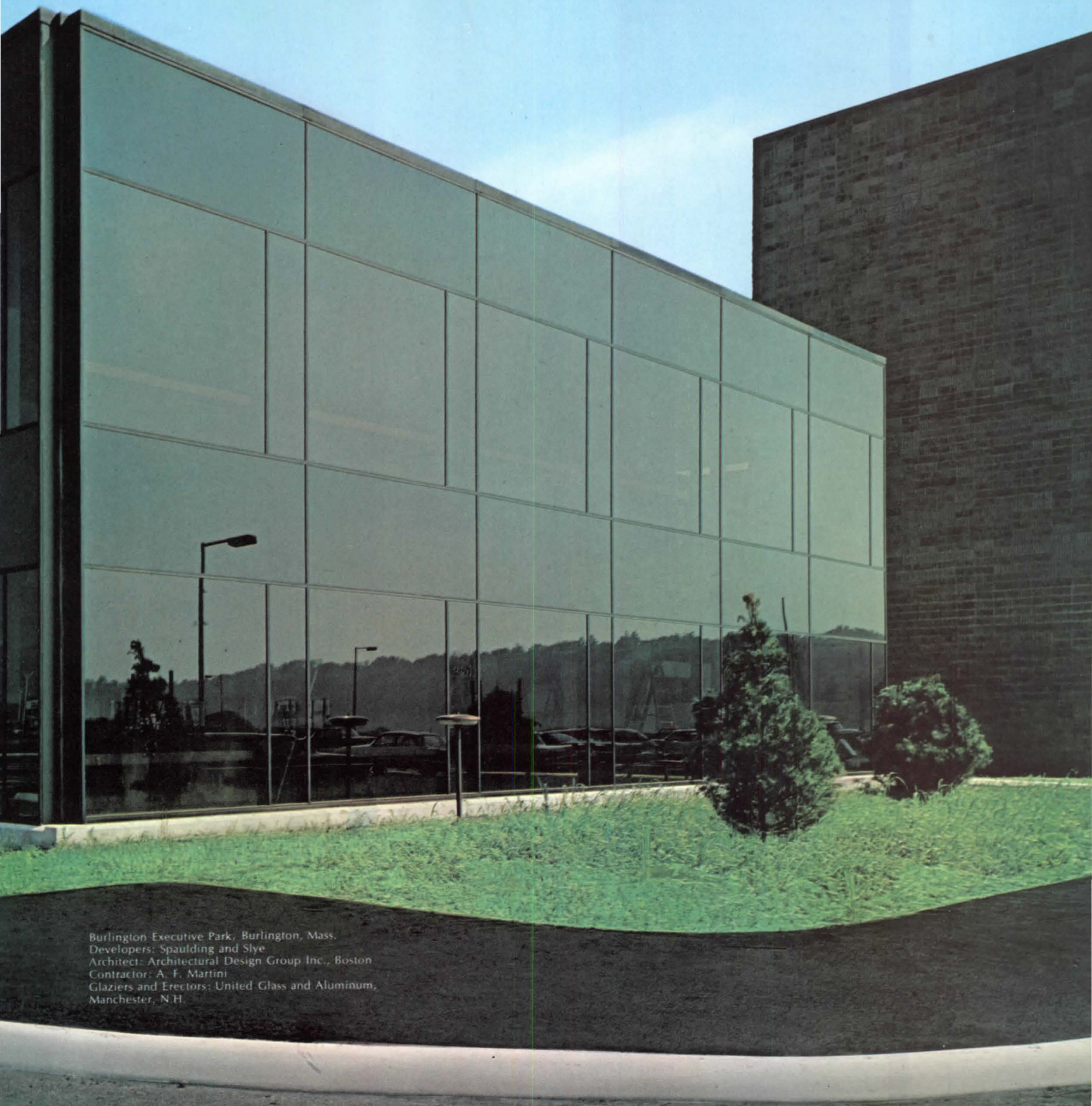
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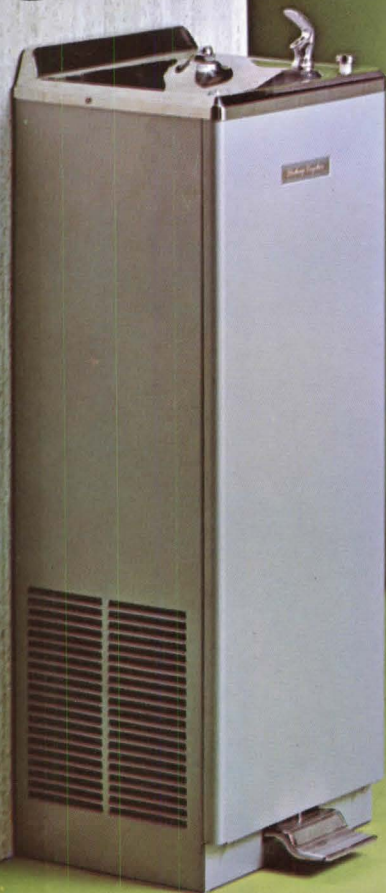
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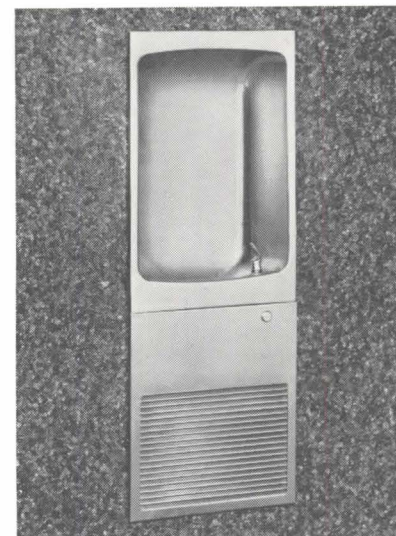
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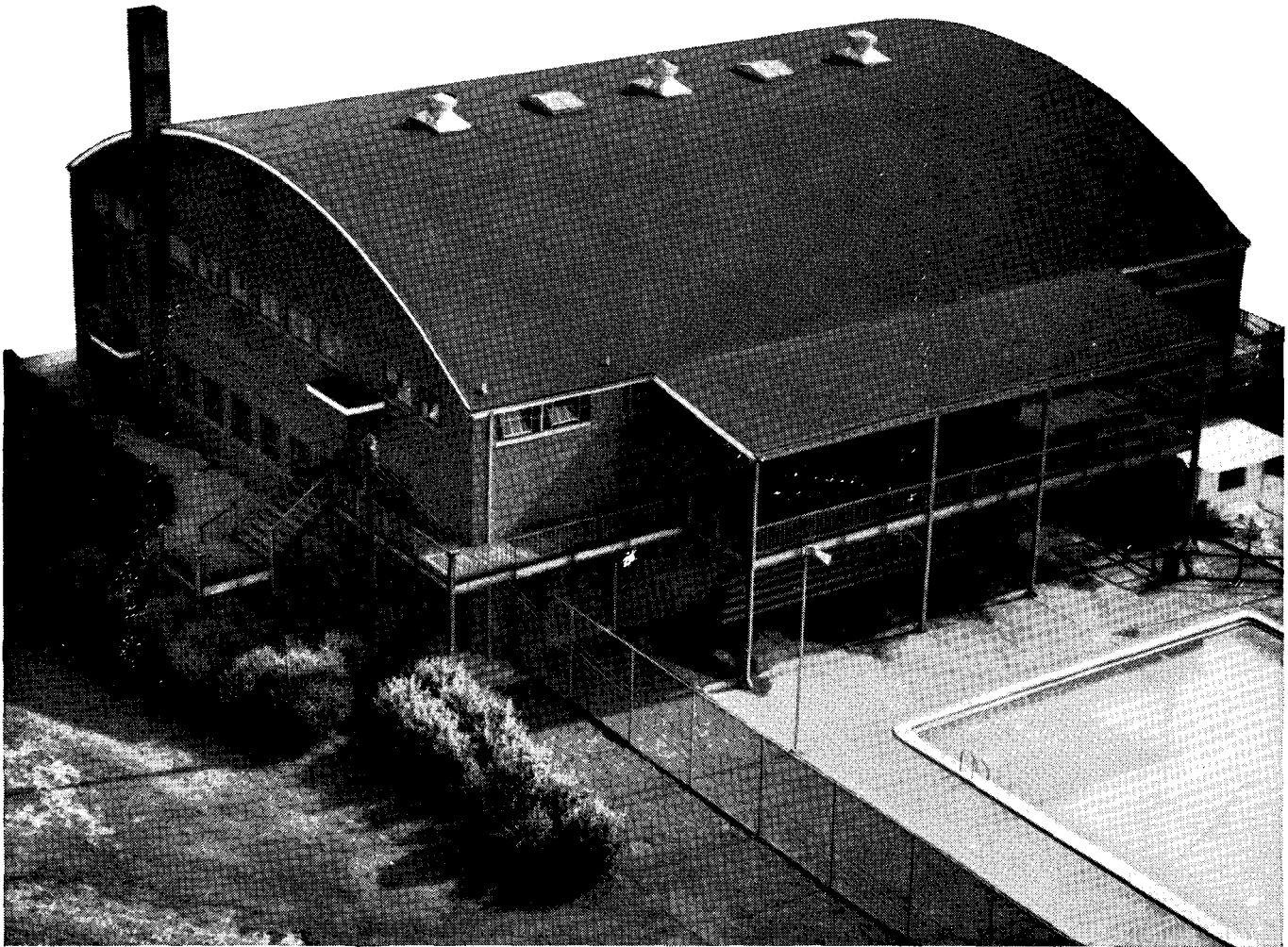
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BILLION DOLLAR REBUTTAL

The provocative article "One Billion Dollar Subsidy for Slums" appeared in our July/August issue. A group of letters followed in September, and a further commentary by Roger Schafer of the Forum's Board of Contributors in October. The authors of the original article, John M. Bailey Jr. and Henry Schubart Jr., reply.

It is the more surprising that government's response to urban problems is so uncomprehending when, to judge by the reading comprehension shown in some of the comments on the article "A Billion Dollar Subsidy for Slums," so many public officials appear to be products of backward schools. The points which were the substance of the article seemed unambiguous:

- that the poor cannot afford the costs of decent housing and that the current level of welfare allowances is not adequate to meet those costs.
- that most of the monies spent for housing by welfare recipients produce no public asset but instead are dissipated in an inflation-ridden private housing market, for what is largely substandard housing.
- that these monies could, in fact, produce such an asset if used to support a publicly controlled housing program capital-

ized from either public or private sources.

- that such a program would offer long-term savings to recipients and the rest of the public by providing protection against continuing inflation in the private housing market.

The substance of the comments on the article was:

- that the proposals made in the article could not succeed in providing standard housing for all welfare recipients because allowances are insufficient to meet housing costs.
- that subsidies were necessary in order to provide low-income people with decent housing.
- that the proposal would not result in a reduction of housing cost or an increase in housing supply.
- that increases in supply and reductions in cost could better be achieved through adequate funding of existing housing programs than by creating another housing bureaucracy.
- that there is at present a restricted market for municipal bonds and hence it would be difficult to capitalize the program as proposed.
- that the proposals would require legislation permitting vendor payments.
- and that the proposals would result in the segregation of welfare recipients.

The proposal was not offered as a cure-all for the housing crisis, as a means to immediately bring about substantial reductions in housing cost, or as a substitute for other programs.

Secretary Romney's staff begin by pointing out that the program proposed could not succeed in providing standard housing for all welfare recipients because the present level of housing allowances is too low to meet the costs involved. This is true and the article so stated. It went on, however, to predict that housing allowances would increase (a prediction since borne out by the decision of the California court in the suits mentioned that welfare allowances in that state must henceforth reflect the true cost of adequate housing) but that without protection from inflation these increases would soon be vitiated. It is to this latter problem that the proposal is addressed.

Apropos inflation, Senator Brooke says that "We must

bring inflation under control before we can hope to reduce the pressures on the housing market." Inflation is not reflected only by the costs of goods and services. We are told by economists that the value of land (and thus, the price of housing) continues to increase even during periods of stability in the prices of other commodities. Although Senator Brooke feels that "to permit the housing industry to bear the brunt of anti-inflationary measures would be disastrous from the standpoint of any long-run improvements in this area," some public intervention seems necessary to stabilize the price of housing at the lower end of the market. Senator Brooke also says both that "... the housing needs of low-income families cannot be met without direct or indirect government subsidies and the prospect for increased subsidies is not overly encouraging at the present time *because of anti-inflationary efforts underway*" (emphasis added), and that "we must insure that existing housing programs are adequately funded." If the senator is sincere in his apparent belief that *both* anti-inflationary measures (as understood by the Nixon administration) and subsidies are necessary to meet low-income housing needs, then I do not envy him his decision as to how to cast his vote in coming congresses.

To return to Secretary Romney's remarks, he suggests that the real problem is that there is a deficit in the total quantity of housing, hence, "... HUD has launched Operation Breakthrough ... to remove the constraints of housing production in volume necessary to meet the whole range of American needs." He adds that "We are, in fact, collaborating with HEW and local welfare and housing authorities in the Atlanta area to stimulate a demonstration to assure decent instead of substandard housing for recipients of old age assistance," and that "... the demonstration will be carried out with the full range of HUD housing subsidy programs." If rumors I hear are true, that Atlanta project consists of only 50 units and is the only child of the once highly touted "Inner Cities" program, an effort initiated under Mr. Romney's predecessor to bring

about a massive increase in housing supply through "production in volume." Even if Operation Breakthrough does not also founder, merely increasing the supply of housing will not, as Mr. Romney evidently realizes, suffice to meet the housing needs of low-income people. The relatively small reductions in total housing cost achievable through industrialization are not enough.

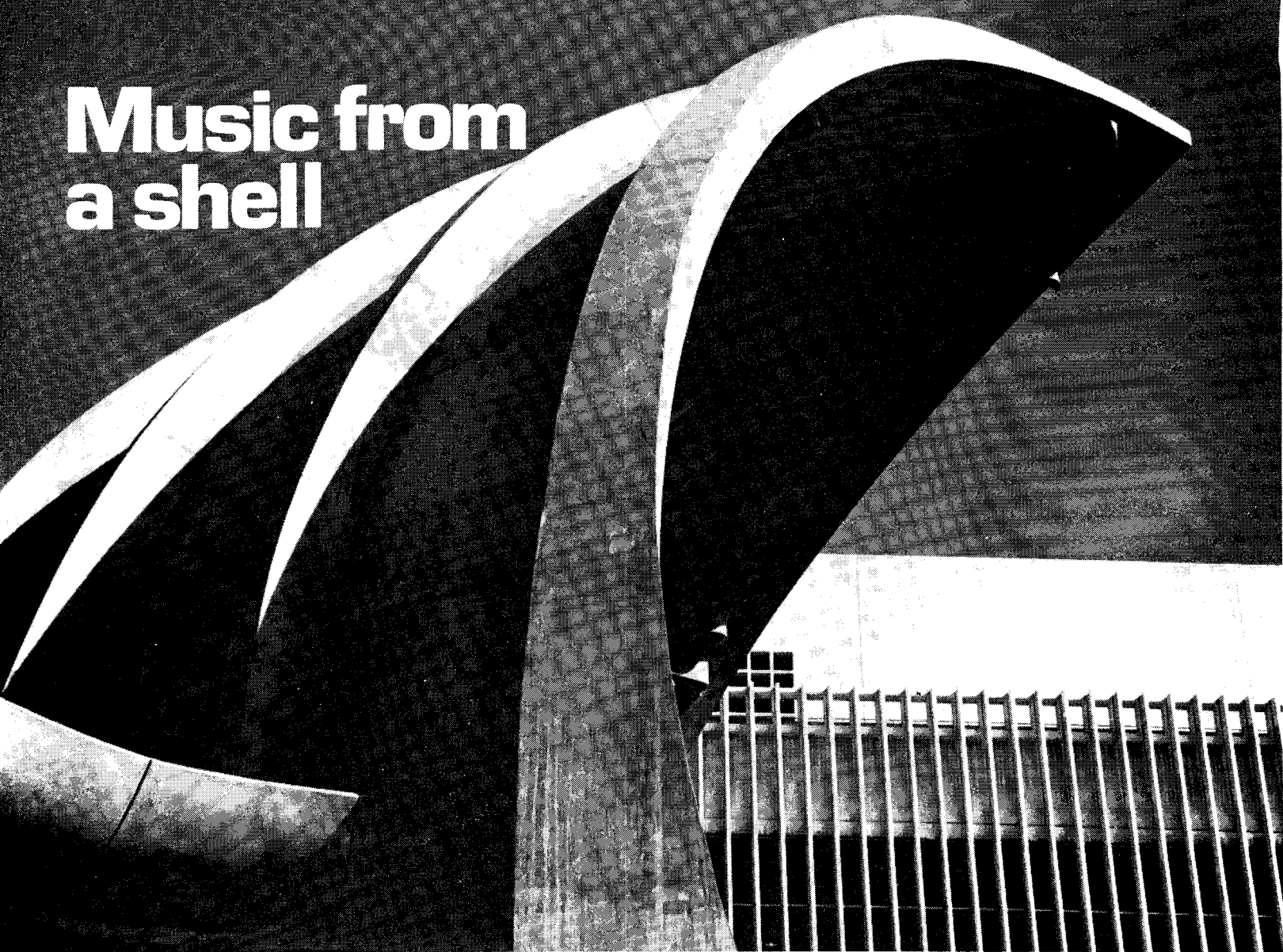
While our proposal does not promise either radical reductions in cost or large increases in housing supply, it does suggest how an existing resource can be used to replace bad housing with improved housing and put that housing under the control of either the public or the occupants. From the information published so far, it appears likely that Operation Breakthrough, like so many earlier programs, will benefit entrepreneurs more than the low-income population.

Concerning replacement of housing, Professor Bloom asks: "What financial provisions are operative during a transition period when the existing supply of poor housing is still needed, cannot be demolished, and is not costless—thereby committing the bulk of welfare expenditures?" What provisions are necessary? What was proposed was a capital investment in new or rehabilitated housing financed either by bond sales or private loans which would subsequently be amortized out of rental income derived from welfare funds. During the investment, or "transition" period, those funds continue to rent existing housing. This may also clarify for Richard Hatch "... what role welfare funds are to play in housing construction (front money, construction loans, mortgages?)"

A more pertinent question about financial provisions was raised by several commentators. That is, whether capitalization through bond sales is feasible in view of the currently tight bond market and of legislative approval requirements in some localities for housing bonds? It is not an easy question to answer. However, there is hope that action may soon be taken to facilitate such capitalization. H.R. 11596, introduced in the present Congress by Congress-

(continued on page 12D)

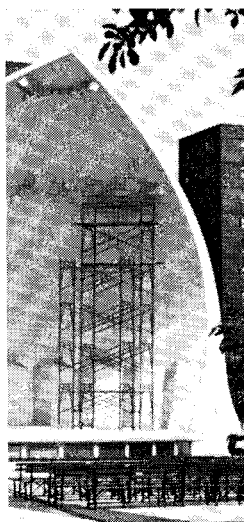
Music from a shell



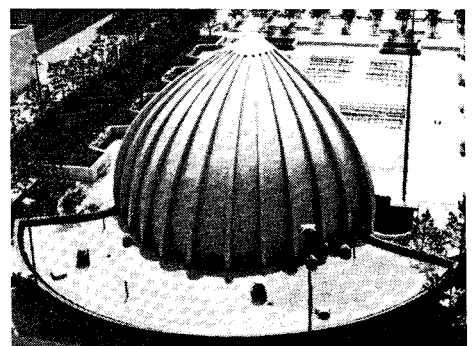
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welfare expenditures. To do this is essential whether or not existing subsidy programs are fully funded. The "bureaucracy" thus created need be no more cumbersome than that of the local development corporations whose formation HUD encourages to make use of existing programs and, unlike most existing bureaucracies, it could be organized under the control of tenants or neighborhood organizations.

One writer, who asked not to be quoted (as would we have, had we made his remarks), said we didn't pay sufficient attention to the use of public housing by welfare recipients. The "large public housing program" to which he called our attention provides only about 640,000 units nationally. To quote again the HEW report referred to in the article: "Public housing, federally subsidized, is at best only a limited resource for low-income families and persons. The available supply is totally inadequate to the need." In San Francisco, the local housing authority has ceased even to accept applications for either individuals or large families. We might as well have discussed the importance of truffles to the starving.

We regret that the article apparently did not make our view of vendor payments sufficiently clear. We believe them to be undesirable because welfare recipients, like everyone else, have the right to dispose of their incomes as they alone see fit. We also believe them to be unnecessary to insure that the housing program proposed would be supported by welfare funds both because that program would provide better housing than the unassisted private market provides and because there just isn't enough housing available through the public housing or other subsidy programs. If there were, the proposal mightn't be necessary, but there isn't and no one has suggested that there is going to be in the foreseeable future.

Finally, Mrs. Gabel, whose comments otherwise were among the most thoughtful received, again raises the spectre of segregation which she feels is implicit in the proposal. With all due respect, we find this a kind of liberal flag-waving which has little to do with the realities

of the housing crisis. We do not see where segregation is necessarily implicit. In fact, we believe the proposal would lend itself to a reduction of the segregation which now so largely prevails. However, it is worth noting that the scattered site public housing program, the Section 23 leased housing program and other public efforts to provide decent low-income housing have been stymied in many areas by the difficulty of obtaining sites outside racially or economically segregated neighborhoods—a difficulty due as much, if not more, to continuing de facto public resistance to integration as to cost considerations. However this fact may outrage us morally, it is not susceptible of rapid change by either fiat or administrative blackmail. To continue to insist in these circumstances that public programs provide either integrated housing or, in effect, no housing at all is bureaucratic self-indulgence.

We have no specific comments on Roger Schafer's analysis; we believe the relevant ones are included in the remarks we have already made.

In sum, most of the comments on the article were nit-picking. What we had hoped for—and still look forward to—is a discussion of the basic political issue which we raised in our article. That is simply that there are over one billion dollars per year of taxpayers money spent on housing welfare recipients. Apart from providing marginal shelter, this money goes down the drain. We have suggested one way of plugging that drain. Our critics have not suggested another.

JOHN M. BAILEY JR.

Architect

HENRY SCHUBART JR.

San Francisco, Calif.

Architect

MORE ON SLUMS SUBSIDY

Forum: The September article entitled "One Billion Dollar Subsidy for Slums" was most interesting. Through it all ran the constantly recurring theme that there was never enough money to do a proper reconstruction job in the slums since private capital could not undertake such a massive task and more taxation was unthinkable.

This to me seems to be utter nonsense. There is adequate

money available to completely rebuild the worst slums in this country without increasing taxation one cent. This idea was submitted to Mr. Romney and our congressman some time ago without causing a ripple. Because it is simple and would not cost the taxpayer apparently it cannot be considered.

The crux of the plan is simply this. We have had a 10 per cent annual surtax and a 5 per cent surtax in the past two years and may phase the surtax out at the end of this year. We say this should not be done. It should be entitled a "Refundable Surtax" and passed on a 5 per cent basis for the next ten years. Total income from it should be pledged to 3 per cent to 4 per cent direct loans to build low-cost standard housing or to rehabilitate solid but substandard housing. A totally new labor approach should be encouraged in this by using the people involved as a labor source, thus bringing employment to the area where it is needed and training a whole new group of construction tradesmen. They will do the best possible work as they are going to occupy and possibly buy these houses. Loans should be kept in reasonable amounts to encourage a lot of the smaller builders to get into this market. When a project is complete, the builder can sell it in individual units and the buyer can secure the same low interest loan if he is qualified. If rent subsidy pays part of the monthly payment, that is immaterial. We have succeeded in adding a property owner and a taxpayer to the country and removed a blighted piece of property from existence.

To keep it from costing the taxpayer it would be set up as follows. Each year when you paid your "Refundable Surtax" (annually for the next ten years) you would get in return ten coupons from the government, each representing one-tenth of the amount of "Refundable Surtax" you had paid and one cashable each succeeding year for the next ten years. Supposing your surtax amounted to \$500 per year for the next ten years. Each year you would get ten \$50 certificates. Since these are as good as cash they can be used to help in paying your "Refundable Surtax." It is easy to see that if you pay the same amount in this example each year for ten years, the tenth year you are

(continued on page 14)

(continued from page 10)

man Maillard (Rep., Cal.) and others would amend Title III of the National Housing Act to permit the GNMA to guarantee obligations of state agencies to finance low- and moderate-income housing. The California Assembly has passed legislation permitting state financial institutions to invest in corporations formed to develop low-income housing and approved a referendum on a constitutional amendment to raise the interest rate on the state's general obligation bonds. (Of course, this won't lower costs but it will make more capital available.)

Several writers emphasized the need for subsidies to bring decent housing within the means of low-income people and suggested that adequate funding of the subsidy programs already on the books (the Sections 235/61 per cent interest and Section 101 rent supplement programs were specified) was a more fruitful approach than that suggested in the article, which would not reduce costs and risked creating still another housing bureaucracy. The need for subsidies was clearly emphasized in the article, which did not, as we have already said, suggest either that the proposed use of welfare funds would provide a substitute for them or that it could, by itself, substantially decrease the price of housing. What it did suggest was a way both of increasing and of protecting the benefits of present and future

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LETTERS

(continued from page 12D)

actually trading dollars, as you are getting \$500 in certificates while paying \$500 in "Refundable Surtax," and after ten years you continue to cash in a steadily decreasing amount of certificates for the next ten years while paying no more "Refundable Surtax." The tax payer has his money back, albeit without interest, which seems a small sacrifice for stamping out substandard housing.

At present this would produce about \$8,000,000,000 per year, or enough to construct over a half million housing units at a cost of about \$15,000 each. The government would collect 3 per cent to 4 per cent for loaning this money, which would be enough to pay their operating expense if they were reasonably efficient. The monthly payments on these loans, say at three and one-half per cent for 20 years, would amount to \$5.80 per thousand or \$87 on a \$15,000 loan. The principal being paid back is what would be returned to taxpayers.

When one considers the growth in this country in the next ten to 20 years, and that possibly one-fourth to one-third of these substandard families would buy their home and become taxpayers, if they could find steady employment, the opportunity in this plan becomes boundless. I feel it would work and that the loss of interest on a few dollars for the next ten years would be a small price to pay to stamp out the creeping blot of rotten slums spreading across our country.

J. W. NOAECKER

Boulder, Colo.

Architect

Forum: I have followed the Bailey-Schubart welfare argument with interest because we developed a similar theory of misused public resources when preparing a development study in South Jamaica, Queens. We were able to document the amounts of money actually paid out in this ghetto area for rebate

of rent to families receiving public assistance.

Of 2,669 families receiving assistance, the average rent payment (for a 3.2 member family living in 3.0 rooms) was \$83.40 per month or \$27.20 per room. This represented 44 per cent of the total welfare payment. However, more than half the families receiving assistance paid an average of \$50 per room and the housing, needless to say, is the worst in the community, and is seriously overcrowded. Generally accepted standards would indicate the need for at least 20 per cent more rooms. Allowing for the need for extra rooms, it is still fair to state that a sizeable percentage of the families could be rehoused in new, standard housing requiring only partial tax abatement and tax sheltered funding. No further subsidies of any kind would be required for more than 30 per cent of the families.

If the public and our legislators were cognizant of the actual sums currently paid out to underwrite our slums, I feel confident that lawful arrangements could be made to direct the enormous purchasing power available to welfare recipients to underwrite new or rehabilitated housing, without endangering freedom of choice, or without necessarily creating new ghetto areas solely for "welfare" tenancy.

JOSEPH WASSERMAN

New York City

Architect

Forum: Your "Billion Dollar Subsidy for Slums" colloquy is good journalism and better wave-making.

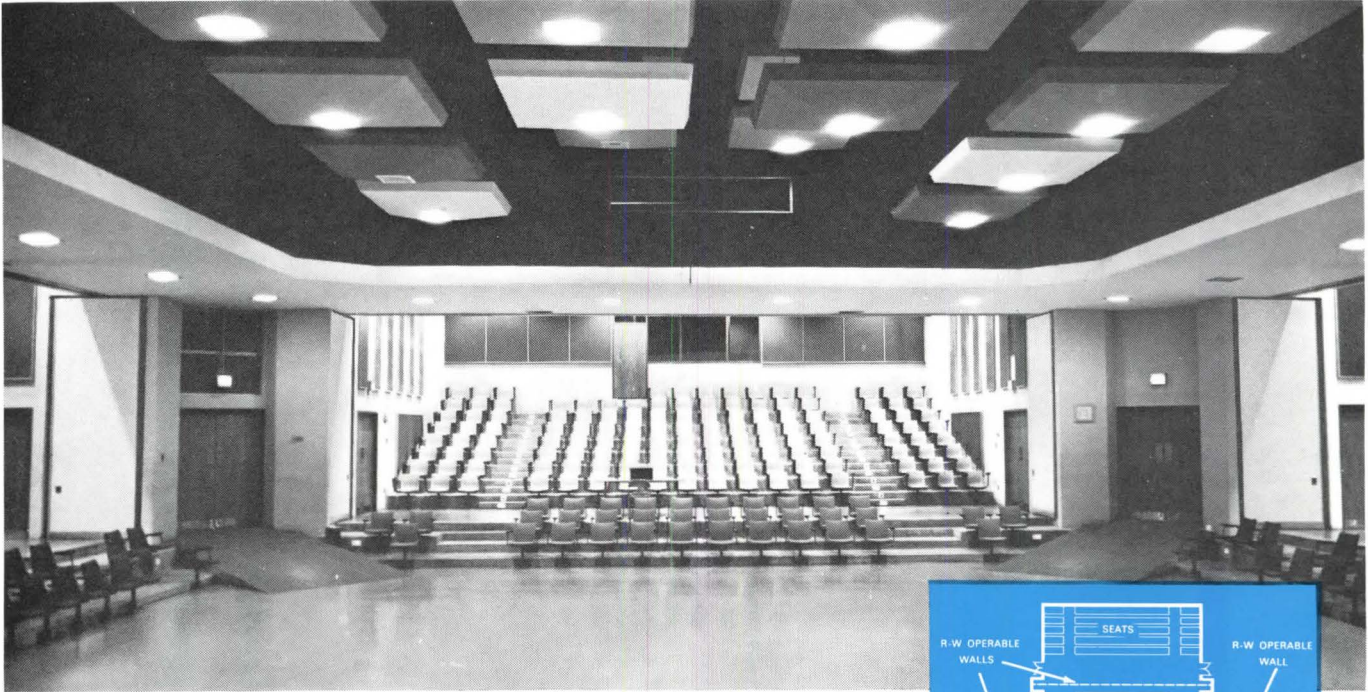
I have been working on a piece that tends to complement it in a rather askew fashion. In essence, it argues that we should subsidize the rich on the condition that they return to the city, pursue their professional careers therein, and discharge their civic and social commitments as privileged human beings. Start, say, by giving them rent supplements.

This sounds satiric, perhaps, but there is a sound footing on which to build the argument. The trouble with a ghetto (incidentally, my wife and I now live in a South Bronx townhouse Richard and Judith Newman are presently remodeling for us) is that it is self-denigrating. With all of the rent subsidies

(continued on page 16)



On The College Scene Across The Country...

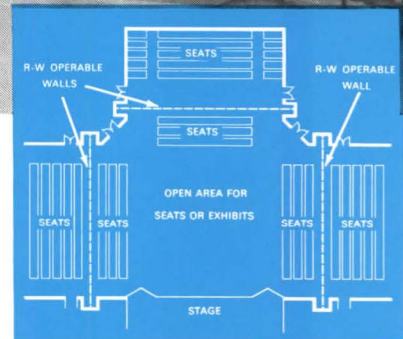


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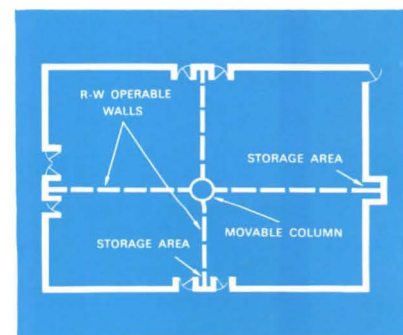
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LETTERS

(continued from page 14)

in the world, a welfare mother with six kids is never going to make even a marginal contribution to her community. She can't. As Herbert Gans has pointed out, practically nothing in the way of resources is allocated beyond survival funds to the ghetto dweller, while almost everybody else is a beneficiary of enormous and endlessly varied subsidization. Most especially, the upper-middle class people who are so desperately needed in the city—not as advocates of the poor but in a sense as company for them. As you know, the kids in architecture schools think advocacy is the thing. I think it is both sopomoric and self-defeating.

WILLIAM HOUSEMAN

Editor
New York The Environment Monthly

Forum: It should be emphasized, that in this day of spiralling land, construction, material and money costs, there is no such thing as new "low cost" housing. The truth of the matter is that in our inverted economy, we are building new housing for low-income families which is more costly than much of the housing occupied by more affluent middle-income families. This is especially true in New York State where rent control has restricted landlord income on multiple residences and led to self destructive deterioration and eventual total abandonment. In many of our major cities, multiple residence properties just beginning the slide to deterioration can be acquired for less than one-fifth the cost of new construction. With a minimal additional investment for rehabilitation, these

properties can be restored to standard condition and made available for all families of low-income, including those receiving public assistance.

Perhaps the demonstration cited by Secretary Romney could be expanded to include the application of Federal public housing funds in tandem with the public assistance housing expenditures. These combined funds, applied to acquiring and upgrading existing, basically sound housing could go a lot farther than if they were used to create far costlier new construction. We are exploring just such an approach in New York State.

CHARLES J. URSTADT

Commissioner of Housing and Community
Renewal, State of New York Division
New York City

SYMBOLS OF AN AGE

Forum: To bid farewell in one issue [Sept.] to two such giants as Mies van der Rohe and Walter Gropius; and to preview a new "world game of practical cooperation" designed by Bucky Fuller, with MHD machine and with wall paint that conducts electricity and serves as a heating element—this is our time in a nutshell. With Mr. Fuller's sober optimism we think that "making peace profitable" is within the reach of mankind.

EUGENE PADANYI-GULYAS

Billings, Mont. Architect

Forum: Your September issue has particular personal rewards. Both of my past teachers, Walter Gropius and Bucky Fuller, were given space and were warmly described in their efforts.

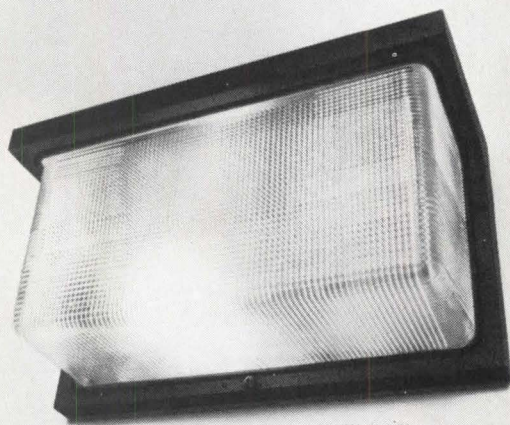
The Fagus Shoe Last Factory, 1910 by a 26-year-old, is a beautiful symbol of the spirit of our age. It is utilitarian in form and function; it is direct in expression; it is beautiful in detail and in general composition.

The World Game of Fuller, an old-timer born as a child each day, bears the love of science in service of man while still enjoying the relationships potential in wanting to share a common interest.

In common they were (as I, knew them) universal in their associations, loving in their personal conduct and benign in their sympathetic appreciation of the students who sought for guidance.

SIDNEY JONAS BRODERICK

Sacramento, Calif. Architect



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Architect: (Owner's Plans)

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Architect: McGuire, Shook,
Compton & Richey
Indianapolis, Ind.

DIVINE SAVIOR HOSPITAL
(CHAPEL)
Portage, Wisconsin

LAKE ERIE ASPHALT CO.
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Architect: Don M. Hisaka
& Assoc.
Cleveland, Ohio

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Architect: Bryant, Butterfield
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CLAUGHTON HOUSE
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Architect: Michael Daniels
Nassau

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Valley Forge, Pa.

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New York

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Architect: Thomas Vadrans
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SIGNODE CORPORATION
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Architect: Tweddell, Wheeler,
Strickland & Beumer
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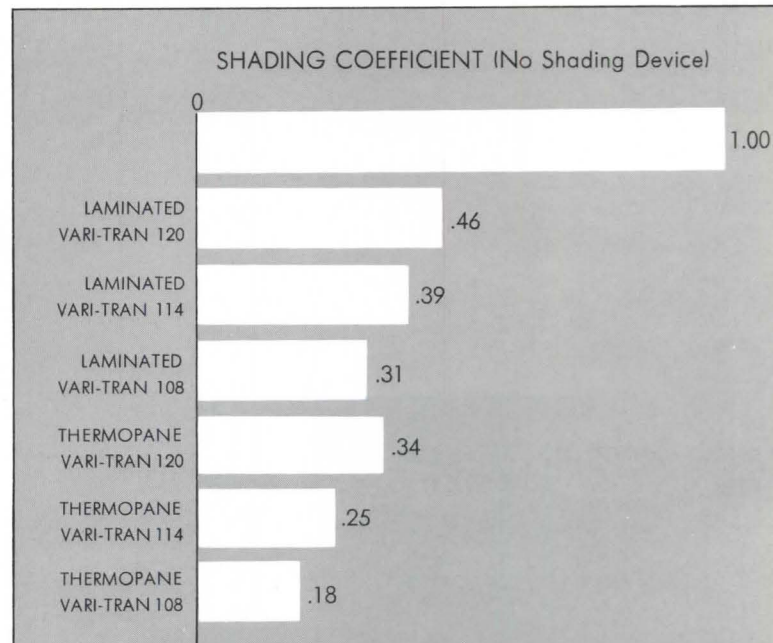
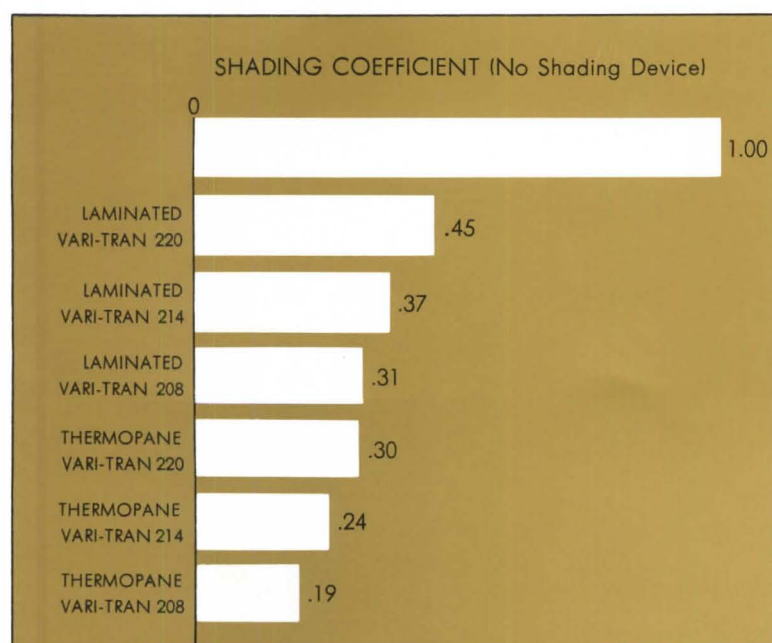
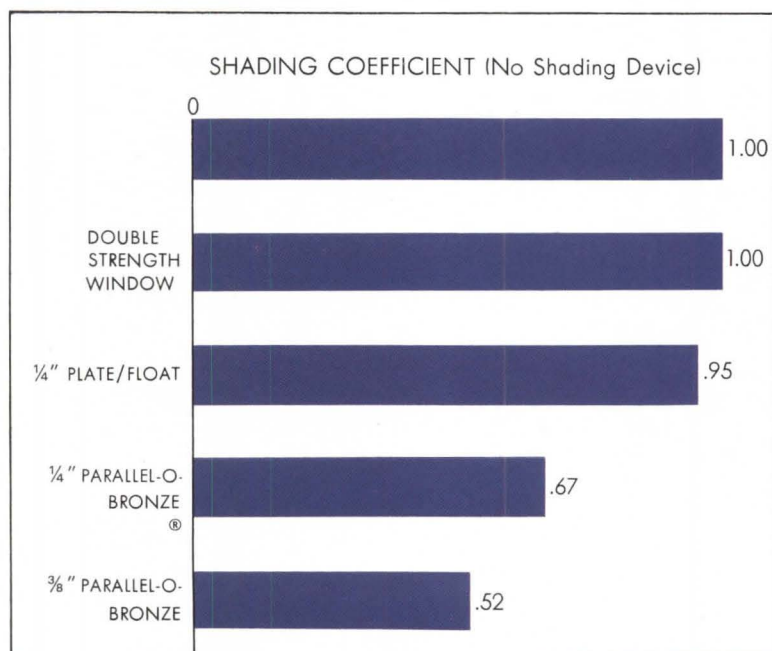
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BLUE CROSS-BLUE SHIELD
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& Marshall
Memphis

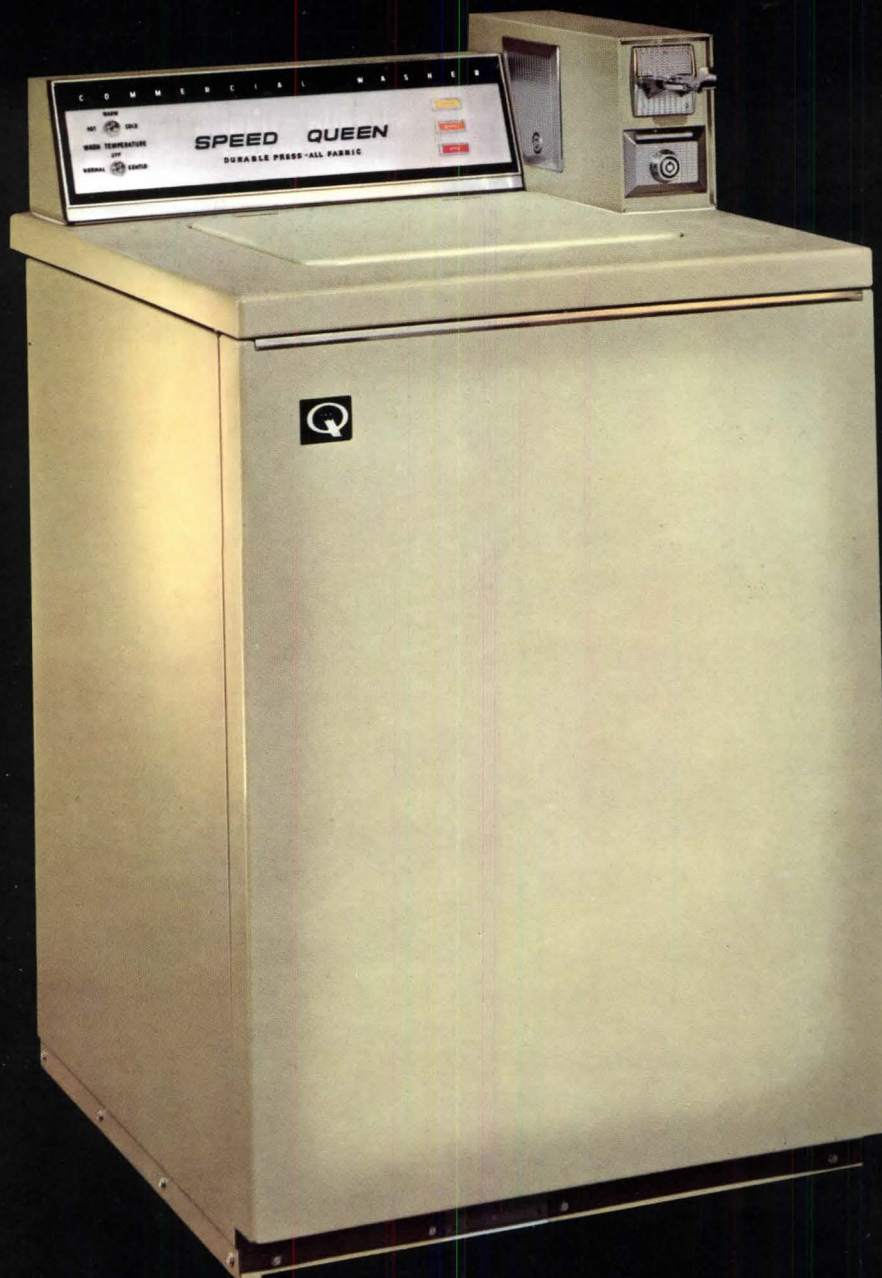


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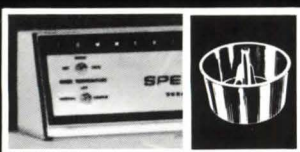
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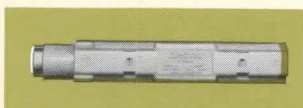


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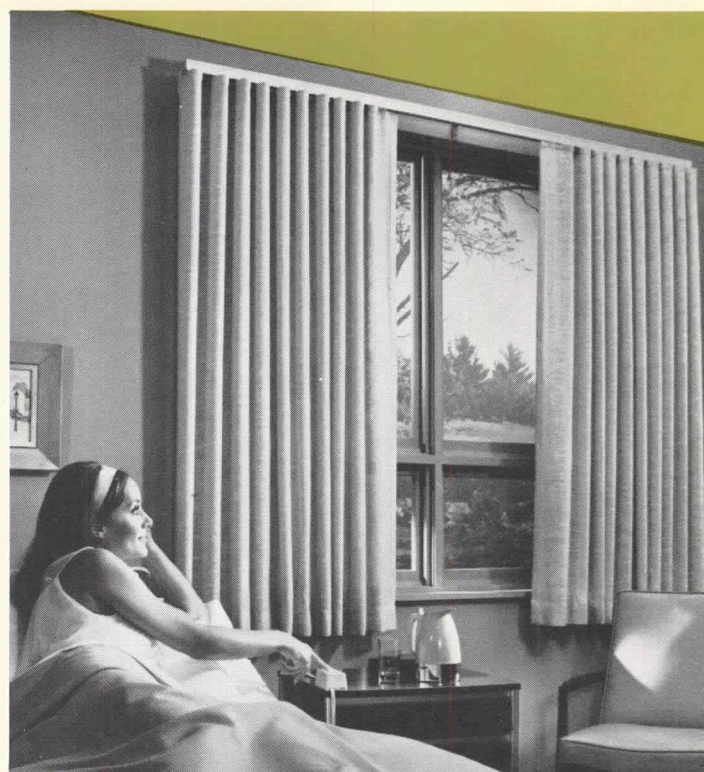
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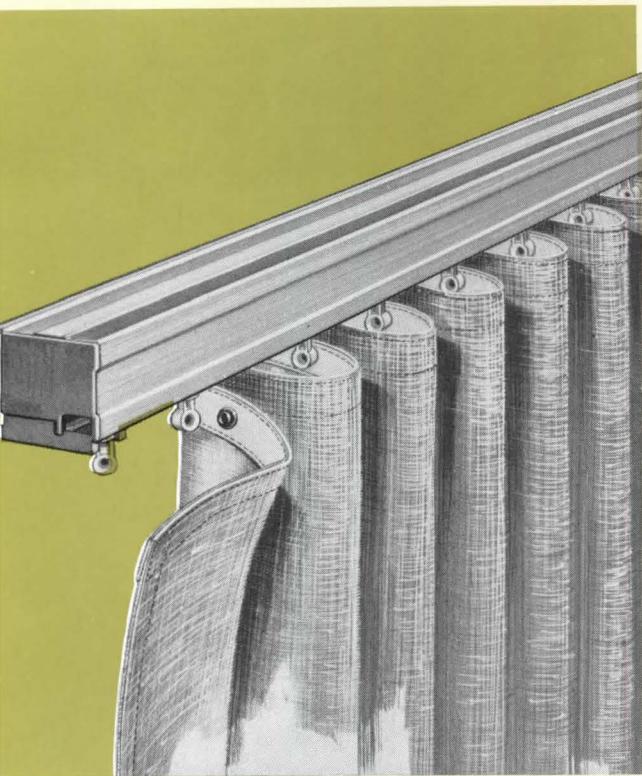
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FORUM

Last May, Vice President Agnew received a standing ovation in San Francisco for remarks that included the following: "I don't want to appear super-simplistic . . . but no domestic problem, no matter how critical it is, can be placed on an equal basis with the continuance of our ability to exist as a society. If there are no cities by reason of a nuclear attack which we cannot respond to or defend against, then there is no need for a HUD." He was, of course, hawking the ABM.

Last month, Congressman Joseph G. Minish (Dem., N.J.) provided a curious echo, in reflecting on the \$215-million reduction in Model Cities funds to be expended this year: "We just might find that without housing and urban development programs, there is no need for a Housing and Urban Development Secretary."

Hastening to blunt criticism of the spending slash, Secretary Romney called it a "downward revision," brought about by the cities' sluggishness in preparing plans and by delays imposed by his own review of the program. None of the 46 present commitments, he said, would be affected.

An impact is expected, however, on 29 first-round Model Cities designees that have yet to sign grant contracts and on 75 second-round choices still in the planning phase.

Romney conceded that \$162 million had been cut from HUD's overall budget for the current fiscal year, in response to the President's call of last summer for a government-wide budget paring of \$3.5 billion. And, he said, the brunt of this amount would be borne by Model Cities. Also affected are programs that provide interest subsidies to low-income homeowners and to sponsors of low-rent apartments, as well as programs for water, sewer, and other neighborhood facilities.

Rollback, slowdown, stretch-out—however it was officially characterized—many in Congress and city governments were skeptical, if not hostile.

"The intentions of the Nixon Administration become clearer every day," said Congressman William A. Barrett (Dem., Pa.), chairman of the House subcom-

mittee on housing. "It is their policy" to repeal, through tight money and freezing of federal funds, all of the gains in housing legislation made over the past two decades."

DELUGE AT BREAKTHROUGH

By the end of this month, HUD hopes to announce the selection of between 10 and 20 industrialized building systems from among those submitted in response to Operation Breakthrough (July/Aug. issue, page 110). Described as "overwhelming," the call drew proposals from 575 designers and manufacturers (some with more than one entry). These included both Type A—complete housing systems—and Type B—subsystems.

In the next phase, contractors will construct prototypes on eight sites selected from the 210 offered by local authorities across the country.

Helping the 90 HUD staffers evaluate entries are design professionals, and an inter-agency board representing GSA, Agriculture, Commerce, Consumer Affairs, DOT, DOD, etc.

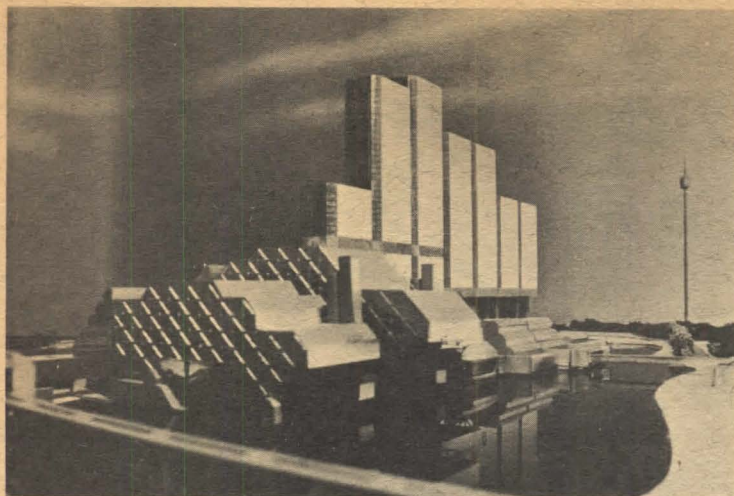
WINNERS

BLUE DANUBE PRIZE

Cesar Pelli and a team of designers, all of Gruen Associates, have been awarded first prize (of nearly \$20,000) for the design of an International Congress Center in Vienna, which will house the United Nations Industrial Development Organization (UNIDO), the International Atomic Energy Agency (IAEA), and other organizations. It will be located on an island in the Danube northeast of the city and may cost 1,200 million Austrian schillings (\$46,457,600).

Second prize went to the Building Design Partnership, London; third prize to F. Novotny and A. Maehner of West Germany; and fourth prize to Johann Stabe of Vienna. Five honorable mention awards included three Americans—Charles F. D. Egbert; Roger O. Boyer; and Guy Rando (U.S.) with Kevin W. Miller (Italy).

Members of the international jury: Josef Krzisch, Architect Ferdinand Schuster, and Anton Seda of Austria; and Architects Jiri Novotny of Czechoslovakia, Heikki Siren of Finland, Sir Basil Spence of the United King-



dom, and Pierre Vago of France.

Pelli's design (above), said the jury, "showed inner coherence, simplicity, compactness, imagination, and flexibility. It had the advantage of being fairly economical to maintain and could be built in stages . . . however, the rigid mass of office buildings constituted a weakness, since it tended to isolate the international center from the rest of the city."

Winners may alter their entries to reflect the jury's observations before they are submitted to the sponsors—the Austrian government and the city of Vienna—for a final decision.

ACADEME

HUMANITY FOR ENGINEERS

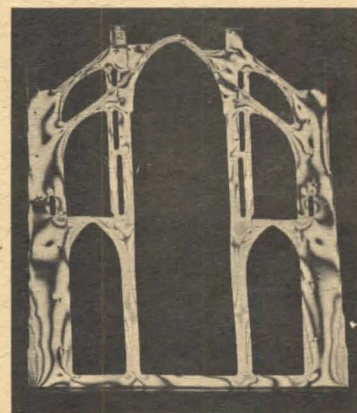
In the belief that civil engineers are not sufficiently culture oriented, Civil Engineer David P. Billington and his associate, Robert Mark, have begun, with foundation aid, a "Humanistic Studies in Engineering Program" at Princeton.

Students will analyze the "relationship between efficiency and elegance" in certain well-known structures.

The second major thrust of the program is to research and publish—in association with the Schools of Architecture and Urban Planning, and Art and Archaeology—a series of articles, textbooks, and critical essays to establish "a new source of scholarly contributions by the civil engineer to the work of the humanist, particularly the art and architectural historian."

They cite a study made by Professor Mark of Gothic cathedral design to show what they are talking about. He used the photoelastic stress analysis

technique—portions of a structure, modeled in plastic and weighted to reproduce actual stresses, are placed in polarized light to reveal the physical forces acting within. Mark showed that a number of Gothic design characteristics, once thought to be



purely decorative, are integral structural components. Above is Mark's Amiens Cathedral in a 60 mph wind, wherein structural stresses show up as rainbow-like psychedelic swirls.

NEW START AT YALE

Reconstruction of the Arts & Architecture building at Yale, following the flash fire of last summer (July/Aug. issue, page 41), has been postponed until it can be related to the outcome of a series of studies into the "programs and objectives" of the school. Meanwhile, Yale President Kingman Brewster Jr. has reorganized the school—"for this year of reappraisal only"—at scattered sites around the New Haven campus.

A spokesman for Brewster characterized the changes as "responding to the problems brought to our attention in the spring." Students, however, found an indication of tighter

administration control in this remark by Brewster: "The lines of authority between those who preside over faculties . . . and the central administration are more direct and less ambiguous."

Perhaps so. But to an outsider, a course in semantics might help to figure it out.

Under the reorganization, there will be two deans instead of one. Howard S. Weaver, formerly dean of the school, is now dean of the faculties in arts. (Under Weaver are three directors of studies: Lester F. Johnson, painting; James Rosati, sculpture; and Alvin Eisenman, graphic design).

Charles W. Moore, formerly chairman of the department of architecture, is now dean of the faculties in design and planning. (Moore is also director of studies in architecture; Christopher Tunnard is director of studies in planning.)

Tunnard, it should be noted, was dismissed last spring as chairman of the planning department for his role in the "unauthorized admission" of twelve students.

REVOLT, WEATHER PERMITTING

Dissident students at "U. Mass," Amherst, called attention to their dissatisfaction with the monolithic university this fall, pointing first to its architecture. Unhappy over living in five overcrowded highrise dormitories, they set up their own "Free University City" in four black-and-white polyethylene domes just across the way (below).

So constructive was this form of protest that the Establishment, at least, was swiftly radicalized. Members of the engi-

neering faculty helped put up the domes; Monsanto Chemical Co. donated much of the plastic; and the administration was cooperative.

Unstructured—no credit—classes on such subjects as drugs, sex, and esthetics, were taught by faculty members who volunteered their time; and a "guerilla theater" staged parodies of official courses considered non-relevant.

After about three weeks, the domes themselves proved to be unstructured. All four blew down in the wind. With cold weather coming on, the self-destruct university was moved to empty classrooms after hours with, of course, administration approval.

SNAGS

WEAKENING THE FOUNDATION

Sydney Howe is president of the Conservation Foundation, a non-profit, tax-exempt corporation that engages in "research, education, and training programs designed to expand and apply knowledge regarding the earth's resources . . ." It is financed primarily by grants from endowed foundations.

Last month, Howe testified before the Senate Finance Committee holding hearings on the omnibus tax reform bill already passed by the House. While sharing the public's concern for the need to correct foundation tax abuses, Howe zeroed in on Section 4945, subparagraph (c), in which private foundations would be fully taxed for expenditures that include: (1) "any attempt to



influence legislation through an attempt to affect the opinion of the general public or any segment thereof," and (2) "any attempt to influence legislation through private communication with any member or employee of a legislative body, or with any other person who may participate in the formulation of the legislation [i.e., lobbying], other than through making available the results of nonpartisan analysis or research"

Present law prohibits propaganda to influence legislation when such activities are a "substantial" part of a foundation's objectives.

While Congress provides tax benefits to private businesses for public information programs dealing with legislation, Section 4945 could penalize public-information organizations like Howe's for "affecting the opinion of the general public," or, taken literally, kill them. It would also penalize the endowed foundations who support them for not "policing" their grants to verify that the money is being spent for "proper purposes"—those, presumably, which go beyond "non-partisan analysis or research."

"In one sense," says Howe, "every charitable organization is and should be 'partisan' in the performance of the duties and objectives for which it was established."

RELEVANCE IN ARCHITECTURE

Young Architect Brockhurst C. Eustice built a house for himself (below) in a suburban subdivision of Arlington, Va., that does not "dress right" with the non-



descript rank-and-file on N. Military Road.

For making the very most of a narrow lot squeezed between a neighbor's carport and a highway access road, it was accused by neighbors of violating a covenant attached to Eustice's property deed, which forbade building a house that was "inharmo-

nious" with its neighbors. Since the only thing its neighbors have in common is mediocrity, the point was well taken. Judge Charles S. Russell ordered Eustice to tear the house down, and granted a 60-to-90-day stay to "lessen the hardship imposed."

Judge Russell found that since Eustice himself was an architect he should know about restrictive covenants. That he should know about architecture was irrelevant. He had not, after all, submitted his plans to the Rivercrest Subdivision's Architectural Review Board. That this august body had never met was also irrelevant, since no one had ever been so "inharmorous."

It is, of course, a rude house. It has no friendly electrified gas lamps, no extraneous brass door knocker, no bright shutters that don't shut, and its garden is private and hidden. Perhaps worst of all, there are no picture windows—or windows at all—for neighbors to peer into. In short, a rugged individual. Or, on N. Military Road, insubordination.

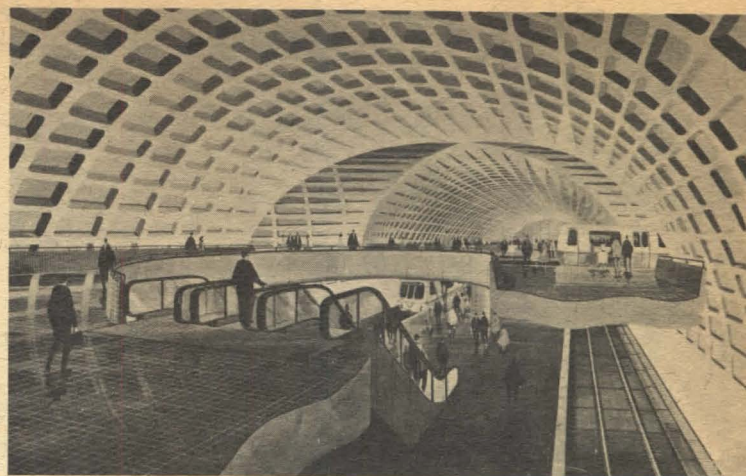
TRANSIT

CLASSIC SUBWAY

Late in September, Congressman William H. Natcher (Dem., Ky.), under pressure from the White House, released his hostage—the Washington subway system—held for four years against a go-ahead on the city's stalled freeway program. DOT Secretary Volpe immediately released \$34.7 million in federal funds, which had been appropriated last year, and impounded, to the Metropolitan Area Transit Authority. Another \$86.2 million are presently involved, subject to Senate approval but virtually assured.

The eventual \$2,555-million cost of the 98-mile, city-and-suburban system will come from subway revenues and a federal (two-thirds)-local (one-third) formula of matching grants.

The four years of stalemate have been used by Metro to thoroughly research and design a master plan and program for development, which was adopted in March, 1968, and revised this year. Designing the equipment and facilities was a joint architectural-engineering team headed by Architects Harry Weese & Associates and Engineers DeLeuw, Cather & Co. Their overall concept, station de-



signs, and standard details have been endorsed by the Fine Arts Commission.

Subsurface stations in the District—"in keeping with the classic public architecture of the federal city"—will be on two levels beneath gracefully vaulted and coffered ceilings. The automated fare collection system and passenger services will be located on free-standing mezzanines can-



tilevered over train platforms ("Metro Center" station, top). Train control and communications will also be automated; and all subsurface stations will be air conditioned and sound deadened.

Surface entrances (Dupont Circle, above) will be in parks, squares, or arcaded in buildings wherever possible.

Construction bids will be opened on the 24th of this month and digging is expected to begin before Christmas on either of two sections in an initial six-mile link between Union Station and the White House.

GETTING THERE FASTER

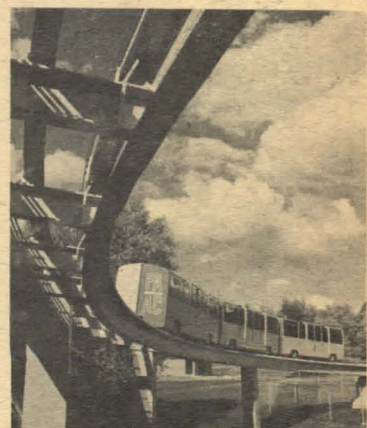
Some other transit developments from across the country:

● San Francisco is back in the business of building cable cars. BART, unable to buy back antique cars sold to collectors and museums, will build three new—but "antiquated"—cars to join the 39 now in service. They will

be built in the municipal railways shops and cost about \$38,000 each. BART also announced it would build a three-block extension to Fisherman's Wharf on the city's most popular cable car route.

● Seattleonians will go to the polls in May 1970, to decide a \$400-million bond issue proposition to finance their proposed rapid transit system (Jan./Feb. '68 issue). The proposition was voted down last year in favor of highways.

● Pittsburgh has announced the first phase of a 60-mile rapid transit system to include two bus roadways on streetcar and abandoned railroad rights-of-way, and an 11-mile "Skybus" line from downtown to suburbs in the South Hills. The Skybus (Jan./Feb. '68 issue), a rubber-tired, fully computer operated, electric vehicle developed by Westing-



house, will have seven miles of elevated and four miles of subway track (see test line above).

● Birds also have their transit problems. Some 400 Canadian Warblers en route to the Caribbean and South America for the winter were killed on the John Hancock building in Chicago last month. Like the Phoenix, which destroyed itself on a fu-

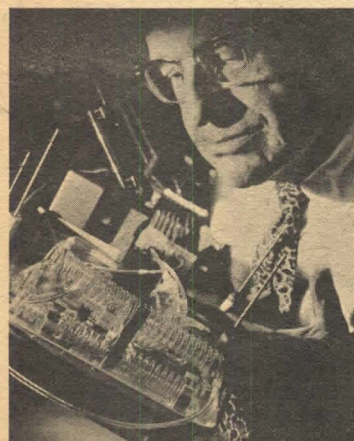
neral pyre, the warblers were fatally attracted to the buildings glowing "crown of light." So the management turned it off for the migrating season.

ENVIRONMENT

LEARNING FROM THE GOAT

While the stockpiling of Anthrax and Rocky Mountain Spotted Fever make better copy, there are those scientists who are involved in what might be called the peaceful uses of germ warfare. In June we reported on a primitive demonstration by a 16-year-old of how sewage dumps could generate electricity (page 28). Now, Biochemist W. Dexter Bellamy has shown that solid waste (rapidly becoming the nation's number one environmental threat) could be recycled to man's use by converting it into animal fodder.

He has, in effect, reproduced in the lab what goes on in a goat's stomach, nature's own garbage disposal-all. He is operating an autoanalyzer (below), which



measures protein produced by the one-celled, heat-loving bacteria which he has isolated.

These germs withstand temperatures that kill harmful bacteria and viruses, and, as in the goat's stomach, they digest cellulose, nature's most common organic compound. (Man converts cellulose into paper products, cotton fabrics, etc., and together with nature's products, they account for up to two-thirds of the solid wastes deposited in a municipal refuse dump or about three lbs. per person per day.) As the bacteria digest the cellulose, they produce a "biomass" containing a high percentage of microbial protein.

If this protein could be pro-

duced on a scale far surpassing the cud-chewers and given a form and flavor they would find appetizing, it would shrink the size of garbage dumps and the amount of land now needed to raise livestock fodder. It could also have a salubrious effect on water pollution, as the waste-digesting bacteria require certain added nutrients which could be supplied by sewage sludge.

KEEPING ONE'S EQUILIBRIA

The British publication *New Scientist*, in reporting on the Berkeley, Calif., underground's "adoption of ecology as its ideological banner," firmly places itself on the side of what they call the "straights." Or is *New Scientist* pulling our leg again, as it does so well?

They tell us about the "four-letterly forthright" reviews of ecologically inspired books and environmental issues in the *Berkeley Barb* and the *Los Angeles Free Press*; and about the Free University summer course in global ecology and the establishment of an Ecology Center in a former store—"where students and their friends maintain 3,000 sq. ft. of bookshop, discussion room, poster-making equipment, and general talking place."

And what do they talk about? Says *New Scientist*: "The anti-consumption bias of modern functional ecology, with its emphasis on diversity of systems and dynamic equilibria."

But, presumably, they find some way to be "four-letterly forthright" about it.

FESTIVALS

AFTERTHOUGHTS ON EXPO

In September, the American Revolution Bicentennial Commission reviewed elaborate multimedia presentations of schemes in behalf of Boston, Philadelphia, and Washington. At a subsequent meeting, it was reported by James Doyle of the Washington Bureau of the *Boston Globe*, the commission was seriously questioning whether a showy international exposition should be held at all, while our social programs go underfed.

The single-site expo has, of course, been challenged by many—from Tricia Nixon to Robert Venturi (October issue).

(continued on page 87)

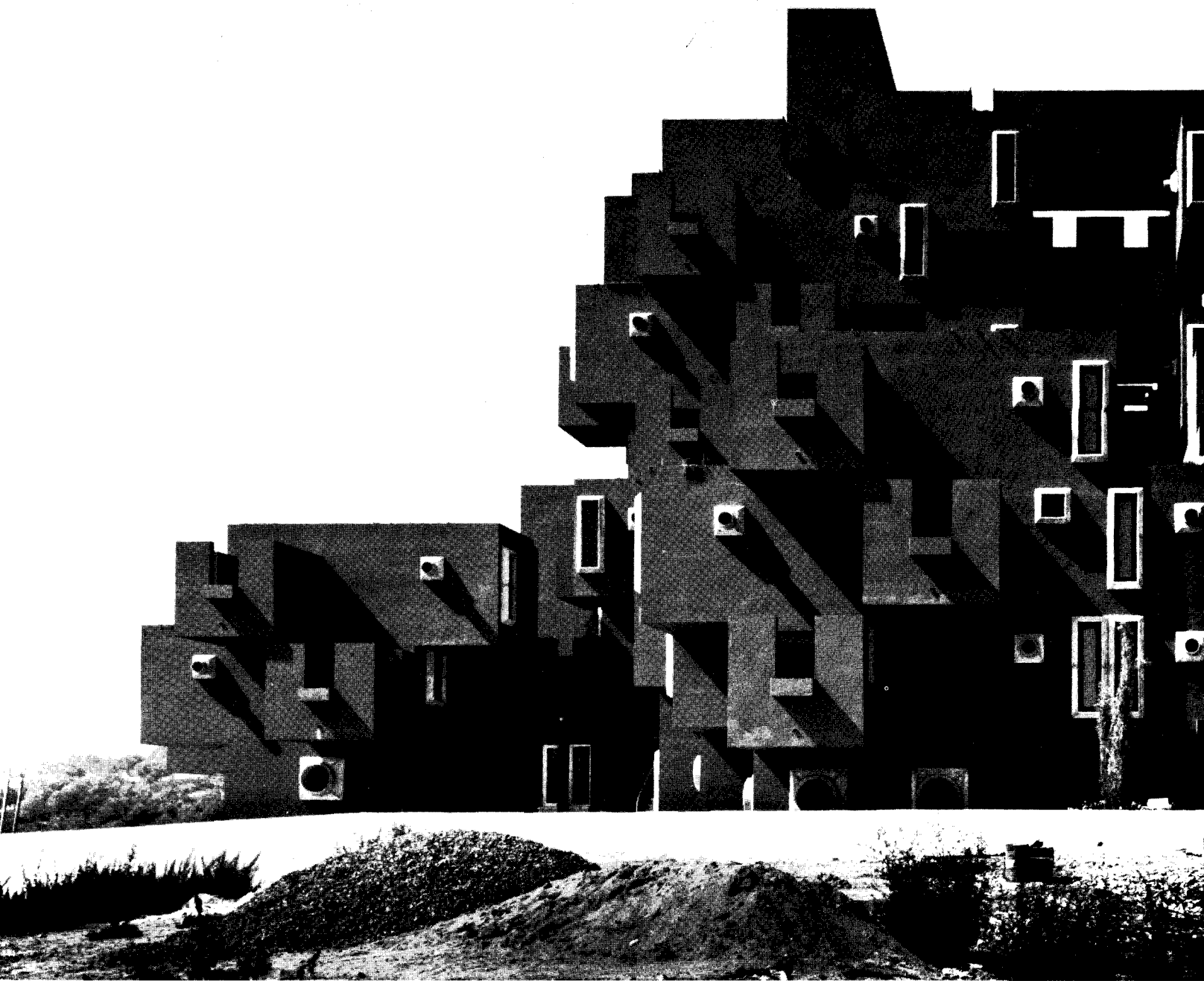


KAFKA'S CASTLE

The building illustrated on these pages is an apartment-hotel on a hill behind the Bay of Sitges, south of Barcelona. It contains about 90 living-sleeping units with bathroom, kitchenette, and terrace arranged on top of a communal ground floor that houses restaurants, shops, a laundry, a sauna, cardrooms and

areas for relaxation—all overlooking a swimming pool. The hotel is operated on a do-it-yourself basis, and it was financed largely by Swedish travel companies that provide the bookings. The project was developed in 1964, and completed a few months ago. The designers were the Bofill Architectural Work-

shop—the same group that built the Xanadu apartments (June 1968 issue). Peter Hodgkinson, an English member of the Bofill Workshop, is responsible for the following text. A translation may be obtained by writing to Mr. Hodgkinson, c/o Bofill Arquitecto, Nicaragua 97 y 99, Barcelona 15, Spain.—ED.



TEXT BY PETER HODGKINSON

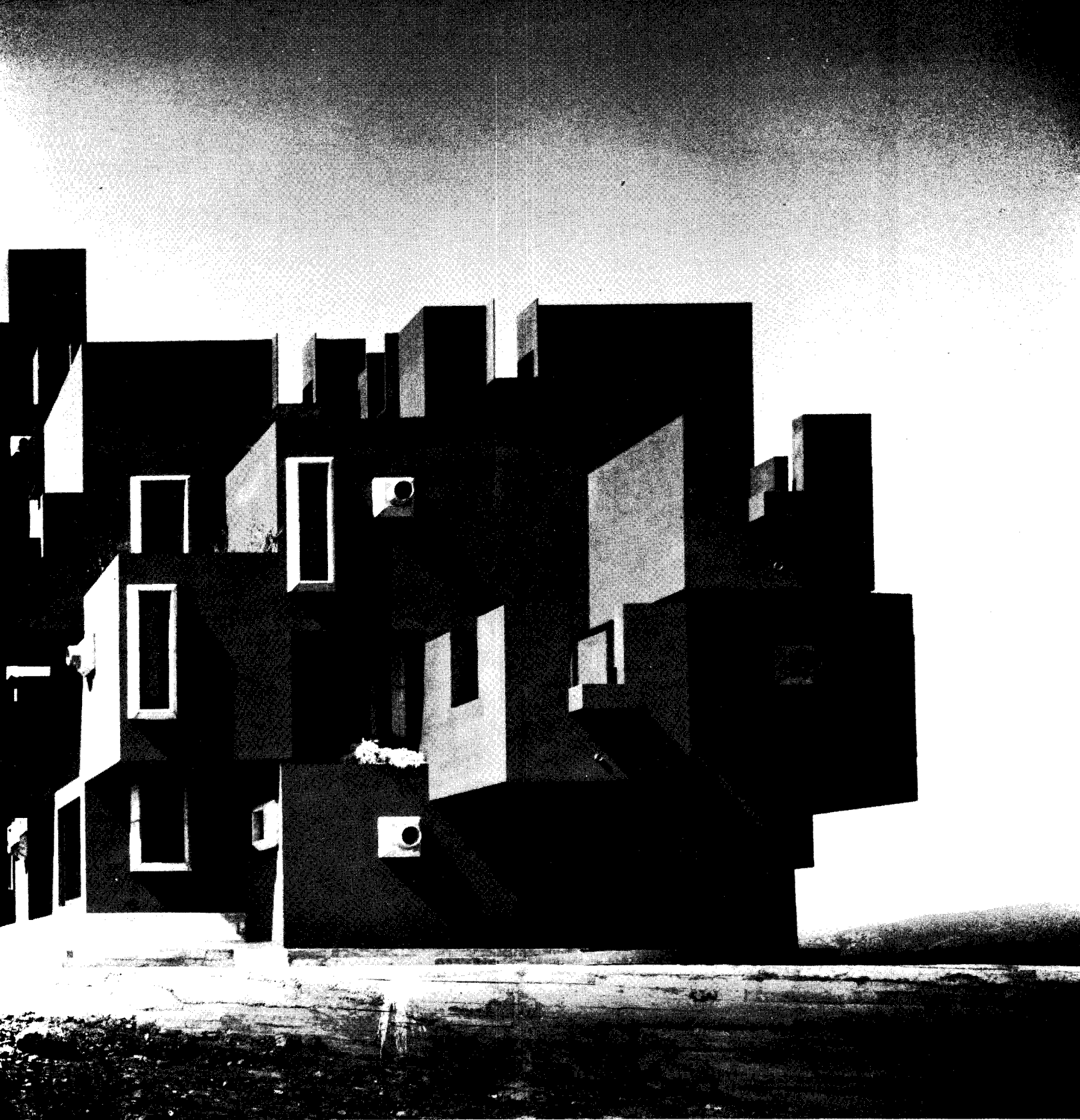
A fragmented castle on a hill behind the Bay of Sitges preaches new possibilities to the landscaped listeners of sea, sand and mountain. The castle follows its inbred architectural role with extroverted gusto and can turn you on 3 miles away, maximum tune-in distance. This is a vibration building, almost frightening

in half-light as its silhouette takes on forms and movements of mystic fairy-story monsters. This can conquer any preconceived disillusionment with the existing architectural conventions and has been built for normal cost in normal time, thus effectively erasing these standard excuses of the professional archi-

ects busily destroying the world's environment and beautiful places.

The Castle is one more aspect of the White Goddess in Life in Death and Death in Life, and to be in the Castle is to be in a royal purgatory awaiting a resurrection on the north winds.

The concept of the Castle—a

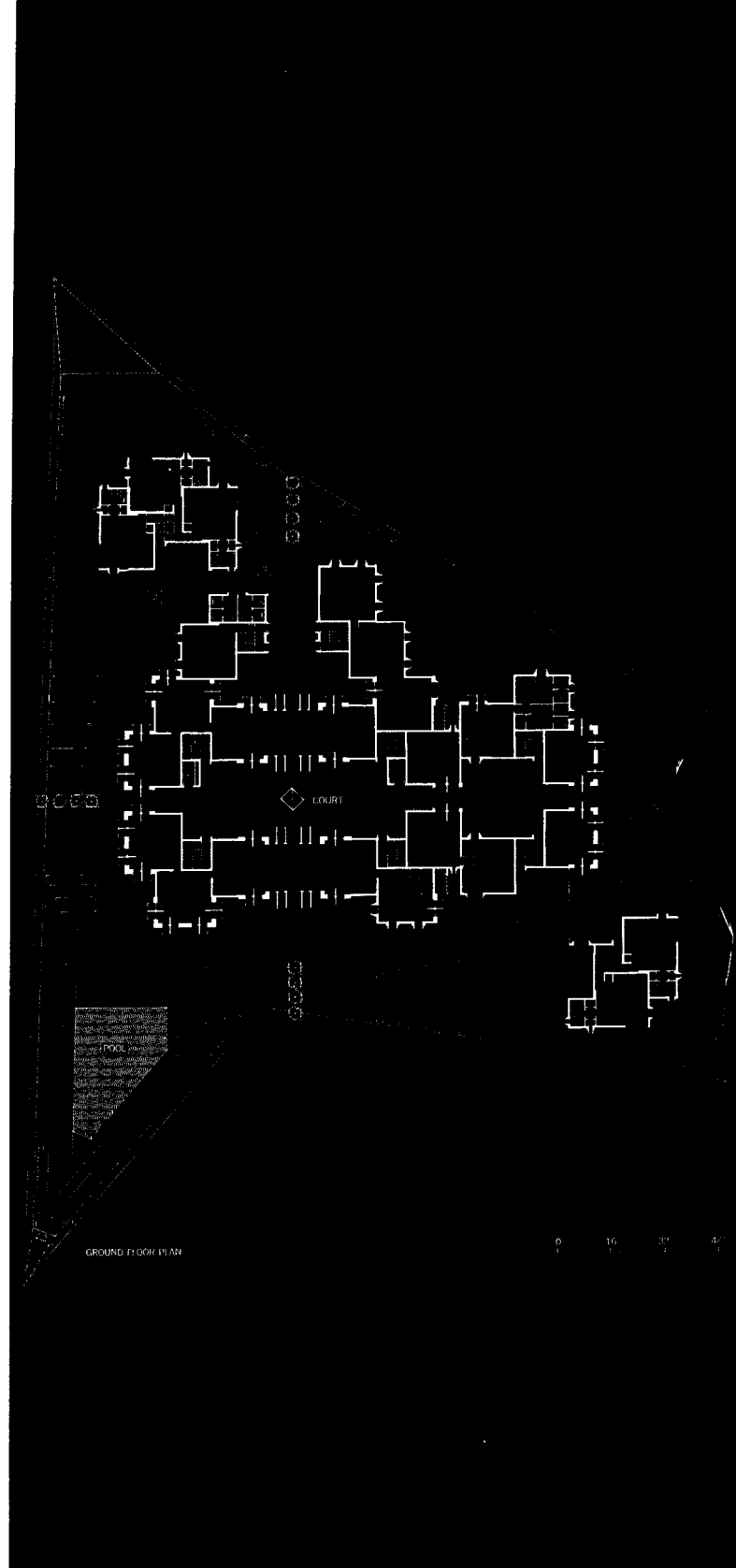
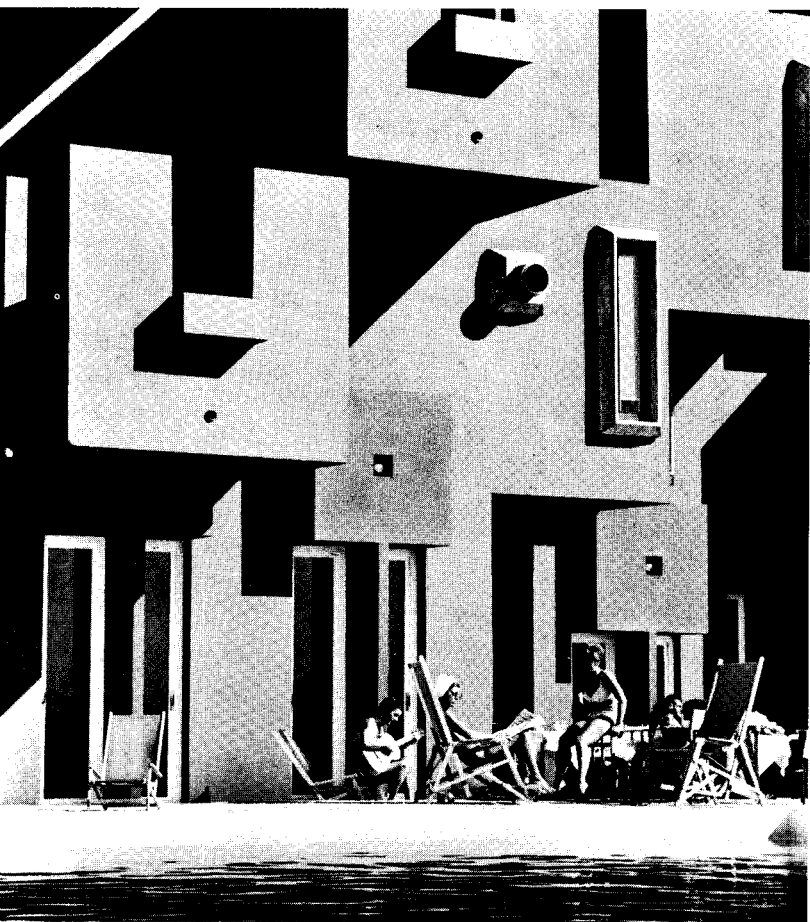
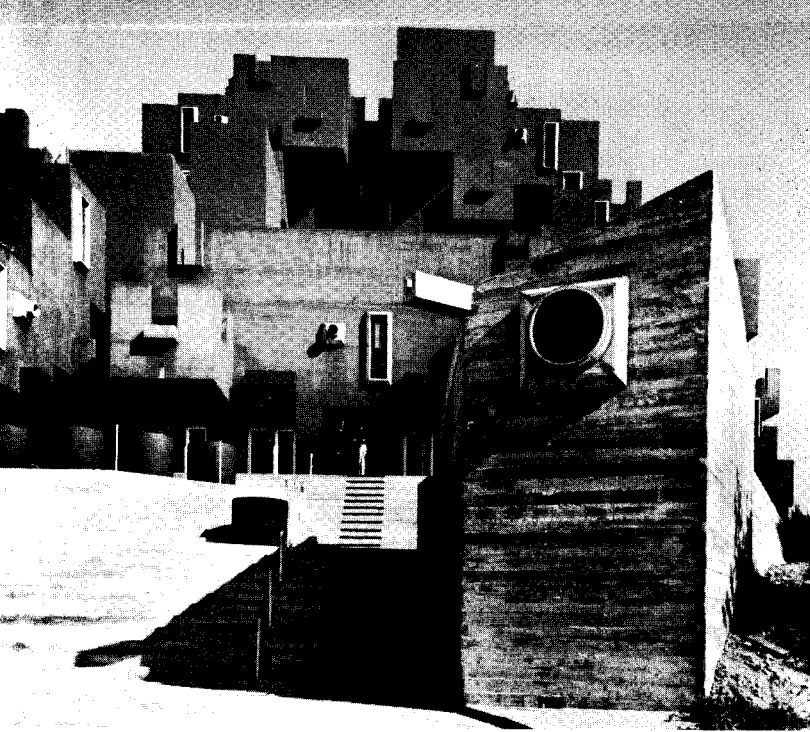


spiral plug-in—is related interestingly to the Archigram school. The major similarities are the use of a separately expressed living capsule attached at will to a vertical or diagonal support and circulation structure (see plan, page 38). These imagery-archigramers have the capsule well disciplined to traditional

layouts and as such the plug-in is at times dangerously close to being merely a science fiction version of traditional lineal thinking and not an experimental experience on *all* fronts of the housing problem. Here the capsule expresses new potentials, the only admission that these, of course, are not real capsules in

the sense of being structurally self-sufficient, but could readily become them when the technology in Spain has become advanced enough to cope with what does not yet exist elsewhere . . . a plug-on to the plug-in is used here; anything can be plugged to the mother unit: bathroom, kitchen, extra sleep

space, terrace—even a garden, the plug-in unit being structurally capable of supporting the plug-on units which are all theoretically free-flowing except for their contact point. There is obviously a limit to the plug-on capacity to avoid smothering the air and view outlets of the plug-in mother unit.



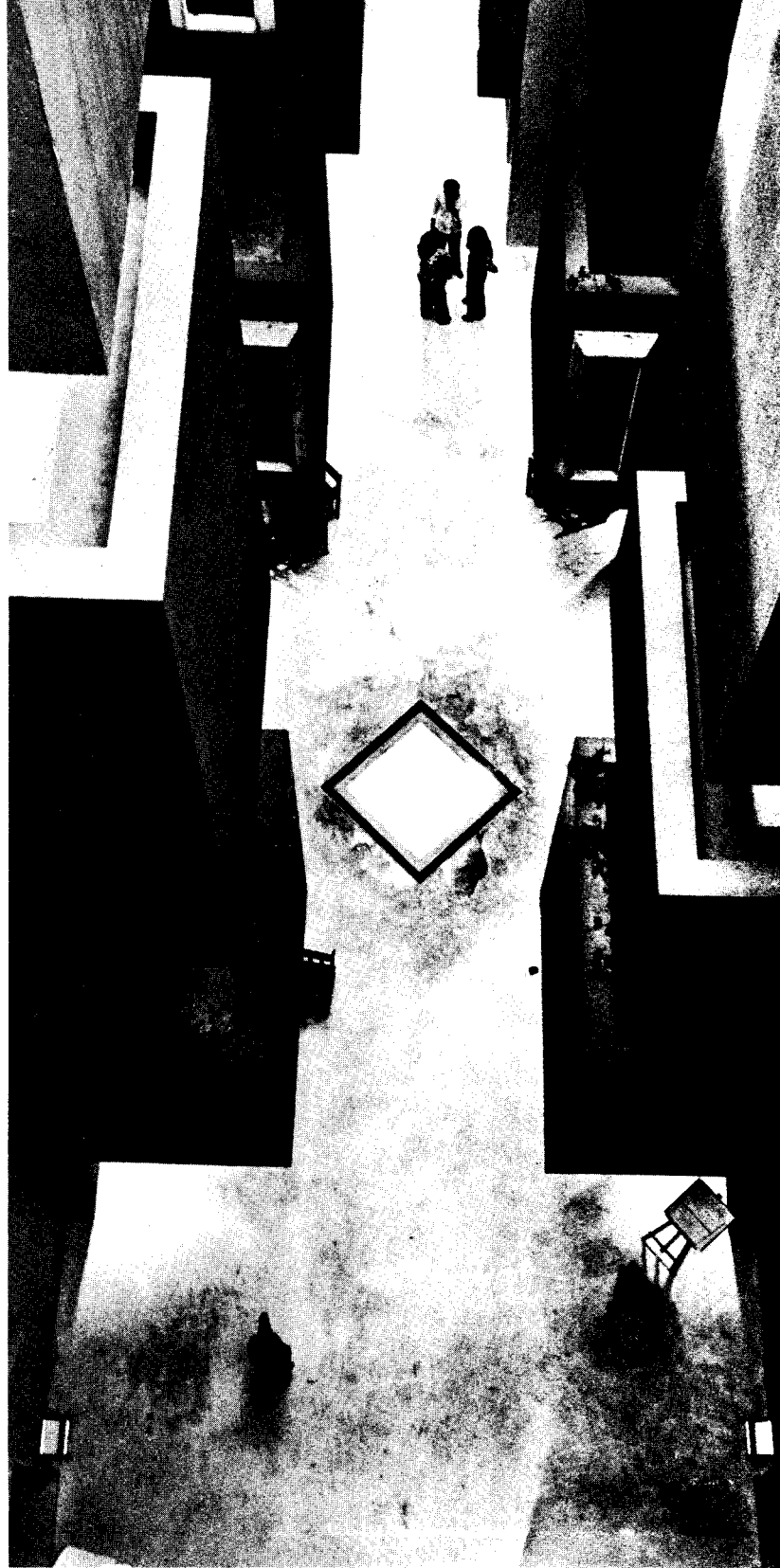
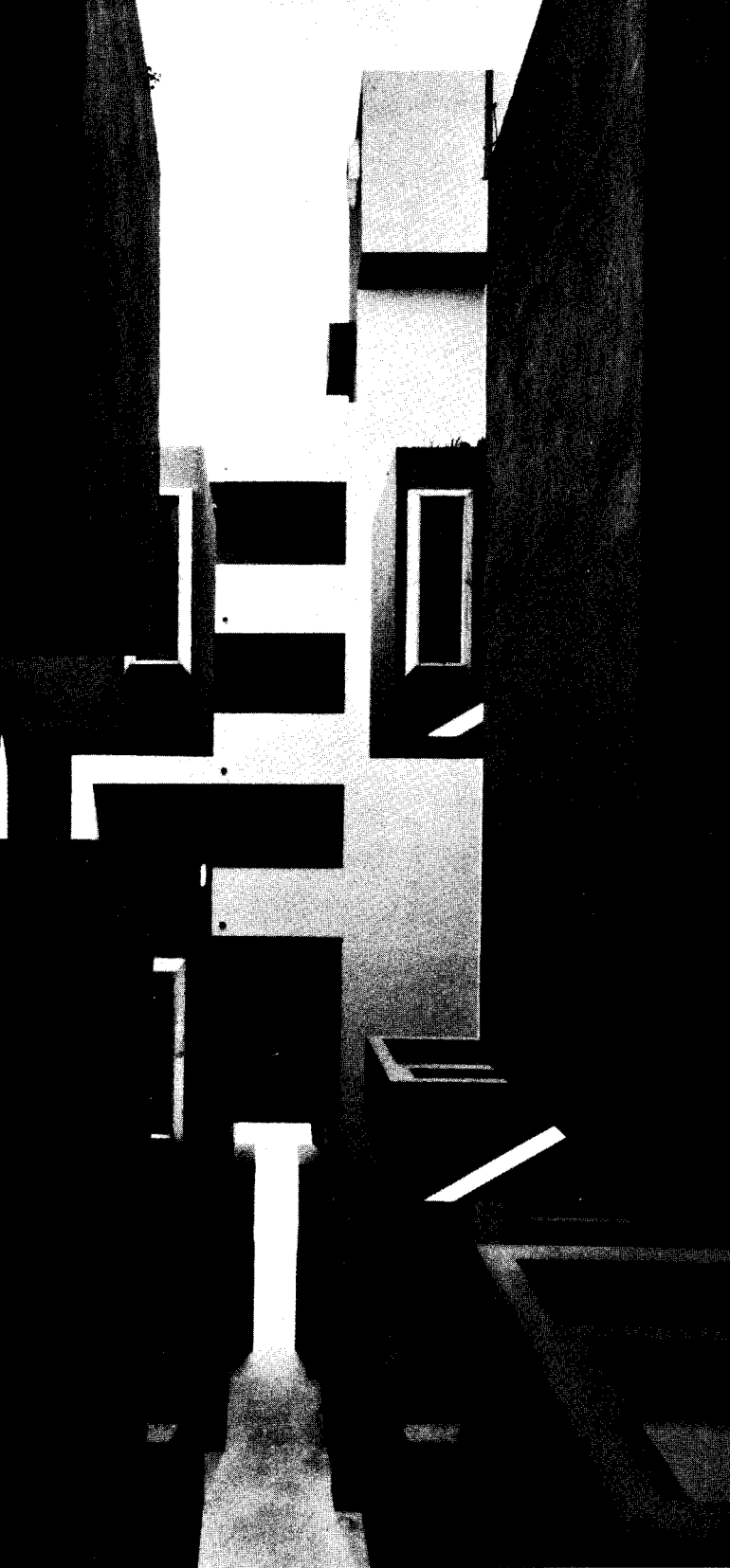
A spiral-stepped solution adds a new spectral possibility to the tired old hacks of architectural vocabulary. Using a series of vertical staircase cores structurally auto-sufficient with the mother units plugged in at increased height levels gives each unit its own entry focus and unobstructed views and privacy over

every other individual unit. Each staircore is structural brick which extends to support half of each mother unit, the other half being supported on two steel columns, one at each corner. A two-way ceramic slab cantilevers in one, two or three directions to form the floors of the plug-ons above and the roofs of the

other plug-ons below. With the three-directional cantilevers a floor area 75 per cent of that of the mother unit is achieved. The plug-ons are then built up in lightweight materials, while the plug-ins are filled in with anything that can be laid hands on. Road drainage pipes are used as window openings and simple

timber carpentry is added: The whole is stuccoed and painted.

After a series of random disciplines developed out of experience with earlier random disciplines had formed a cagework in which to begin, the usual office formal model and methodology were studied on the basis of spiral movement and increasing



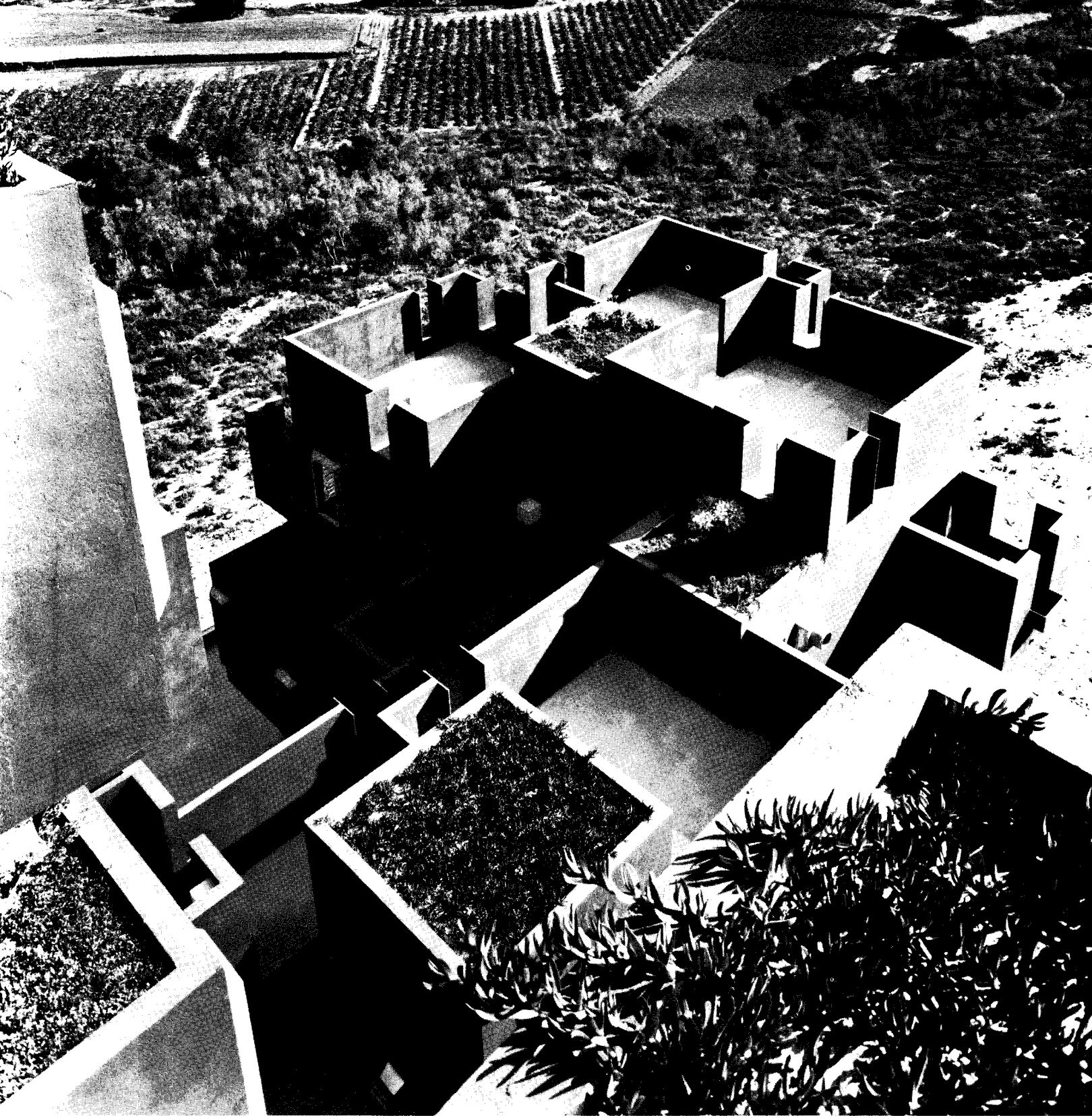
relative height. Half cubes of wood with metal pegs were used to push into multihold sticks in every conceivable position with varying numbers of representative units; from these experiments laws were developed setting up a natural selection list for the project conception. One stick and woodblocks were then

pressed into another stick and woodblocks in every possible way, the most advantageous circumstance noted and the experiment continued with 3,4,5,6,7,8,9 sticks and woodblocks, etc.

A representational scale model was made of the solution and the office set about thinking how to solve the paper information

problem so clearly that traditional presentation could be dispensed with. The fact that each staircore was fixed at ± 0 , that four units spiraled 300 degrees and that each level changed by 0.70 cms up the flight of stairs produced an equation which when elaborated produced all the relevant information neces-

sary to build the project on one sheet of paper, with the aid of two secondary drawings clarifying the variations of the put-ins and the plug-ons. . . . Thus the project was built with the information deduced from five sheets of paper. All detailing over and above the basics was decided directly on site.



To what extent does this weird fragmented castle break with traditional modern architectural thought and production? Is it an historical throw-back or a real new thing-building in the sensible magician school as Xanadu (June '68 issue)?

Why does non-linear scatter thinking produce a result which

might be criticized by hardhearters as down-the-line paper-maché medievalistic plagiarism? Basically the conception is very difficult to grasp for those who have dragged their way through decades of lineal-thinking product-buildings, but every effort should be made to see this fragmentation with the digested in-

formation of the scatter thinkers. For in scatter thinking one continually shifts the initial perceptual choice and often little logic is required to make the right choice.

Architectural thinking shows us more than ever the rigidity and inevitability of perceptual lineal selection when solving vis-

ual problems, whereas scatter thinkers (a "scatterbrain" is a compliment) are the sensible magicians and successfully attempt to escape the self-maximizing properties of the brain system in order to generate new ideas. . . .

The structural happening and superfluous literary explanations



follow the theatric pattern of the world at large. They are part of a scene in which we live against our will. Accordingly a powerful time bomb has been built into the structure whose rhythmic clock-beats can be heard echoing in the patio by those initiated into magical sensibility. The hour of explosion is unknown

and uncontrollable though the effects are well calculated to destroy the laughing faces of angelic children, the long brown legs of blonde beauties, the aged hearts of sun-hankering widowers and the conglomerate of owners, financiers, operators, crooks, workers, hippies, and architects who built this Kafka's

castle. When the mountain collapses in an architectural fury and the bodies are flung miles into the sky, the reader can tear the pages out of this magazine and burn them. Peace will be with you.

*Taller De Arquitectura
Barcelona*

FACTS AND FIGURES

Castle of the Golden Crowns, Sitges, Spain. Client: Pep Avela and friends. Architects: Bofill Arquitecto, Taller de Arquitectura (Manolo Janawsky, Peter Hodgkinson, Xavier Bagne, Ramon Collado); project architects: Emilio Bofill, Francisco Vila, José Margalet. Building area: 59,180 sq. ft. Cost: Approximately \$9 per sq. ft. PHOTOGRAPHS: Page 35, Jordi Gomez; others, David Hirsch.

BRAVURA IN BROOKLYN

TEXT AND PHOTOGRAPHS BY CERVIN ROBINSON

The four brash, picturesque buildings illustrated on these pages are the work of a Brooklyn architect named Frank Freeman who started practice in the late 1880s. The earliest of them was built when he was 28, the last when he was 32. Freeman left little record of his work behind him.

Architectural magazines of his day covered contemporary work in no more than a haphazard fashion, and no more than perhaps a dozen of his earliest (and best) buildings were published. No plans, it seems, were published at all. There were occasional interviews. We learn that in 1892 he was about 32, had worked six or seven years before as a draftsman in the office of a New York architect (not named, but apparently Francis H. Kimball), and since then had designed many houses and churches. He maintained an office of his own from about 1887 until the early 1940s. That is about all the published record tells; at his death in 1949 his own papers and drawings were thrown out.

But his known extant works illustrate young Freeman's development. The earliest, an apartment house of 1889 (right), is an oddly tactile, eclectic building. The exterior is Romanesque-Moorish; the entrance and entrance hall were, before alterations, classical Roman. And the building's upper reaches boast—in a dry, underscaled form—detail of the sort one finds in the work of Freeman's Chicago contemporaries: floral friezes, strapwork, etc. The building is now painted, but originally Freeman's taste for variegated surfaces was expressed here in green copper, buff brick, red pressed brick, terra cotta and brownstone. A house of the same year in Brooklyn Heights (not shown) is irresolute in composition and still underscaled in detail; but it is definitely Romanesque and polychromatic.

Two buildings of 1892 (following pages) represent Freeman's mature style. He now has assured control in the massing of buildings, which, in detail, are enlivened by an off-handed mannerism. In one building, for a political club, simple volumes are composed beneath a taut skin of Roman brick and terra cotta and are set under one almost unbroken roof. The second building was a fire headquarters, essentially one facade in a row on a downtown city street. Here deep reveals in the heavy brickwork and pyramidal roofs are used to produce a building which is not only plausibly three-dimensional but remarkably plastic. On close inspection, though, one finds a set of colonnettes resting smack over the center of an arch. In both buildings keystones dissolved in dry ornament are undersized; impost blocks are equally ornamented and either vestigially small or strikingly oversized; elements change at whim from bay to bay and from story to story.

The last of the works shown here was done in 1893, the year of the Chicago Fair, when Freeman turned to the Classical style. Symmetrical and almost Florentine in character, this warehouse is the most restrained of his early buildings. It is in the extraordinary use of architectural lettering here that the real distinction of this building lies.

Freeman's first Classical building, the Brooklyn Savings Bank, which to Brooklyn's shame was torn down five years ago, was all but picturesque in its massing. The buildings that followed, apparently at ever wider intervals, were never as satisfactory in appearance as the earlier buildings; when composed in simple blocks they were dull, when classical details were stuck onto a complex mass with turrets, the results were grotesque. In any case almost all are now gone—as is one of Freeman's better-known early achievements, the sprawling, shingled Colonel House residence (1891) in Austin, Texas.

In the heyday of Freeman's career, the critic Montgomery Schuyler could write (of two houses of Freeman's on Riverside Drive, Manhattan—no longer standing) that they were "not only by far the most artistic examples of the Richardsonian Romanesque in our domestic architecture but . . . among the most artistic of our dwellings in any style." Brooklyn is lucky to have five extant buildings from that period.

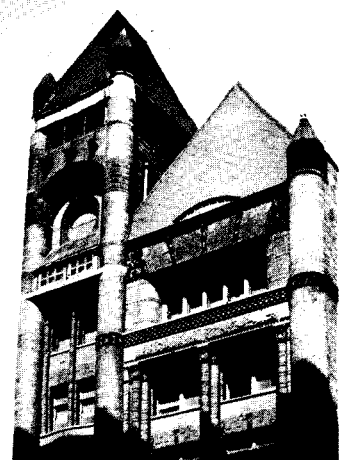
Built in 1889 as a 39-family apartment building, The Margaret became a hotel in the late '90s. It was long the highest building on Brooklyn Heights and, prominently set at the edge of the bluff overlooking Manhattan, was celebrated in books of views of the city as a Brooklyn landmark. The building is now painted a dull gray; the open promenades between the corner towers have been closed in and the original fire escapes have been replaced by more conventional ones. Inside, the lobby is cramped and the "immense glass dome" which covered the central court is long since gone, as is the court itself.





Although this building for the Bushwick Democratic Club is five stories high and has two large assembly rooms on its flank, it nevertheless has a domestic character. No doubt this was a canny response to the needs of a Democratic political club in the '90s, and it did not keep the building from dominating its neighbors slightly but decisively—both by its size and by the sunlit look of its yellow Roman brick. After its days as a political club it housed the Knights of Columbus for a time. Now, after some disuse and considerable vandalism, the building is being rehabilitated by its loving but impecunious owners as the Bethesda Pentecostal Church.

The Jay Street Firehouse was built in 1891-2 to house the administrative offices of the Brooklyn Fire Department. Its ground floor was taken up by a 'wagon room' and stables. The four floors of offices were surmounted by a watchtower. The latter, now disused, has been ineffectually—but only too visibly—pigeon-proofed; the original roof tiles are gone; and stone letters spelling FIRE HEADQUARTERS have been excised from the floral band of the arched wagon entrance. Freeman's tower clearly owes a debt to that of Richardson's courthouse in Pittsburgh, though here the perforated caps to the piers are not air intakes as they are in the original. Of Freeman's surviving works, only this one has been designated a landmark.

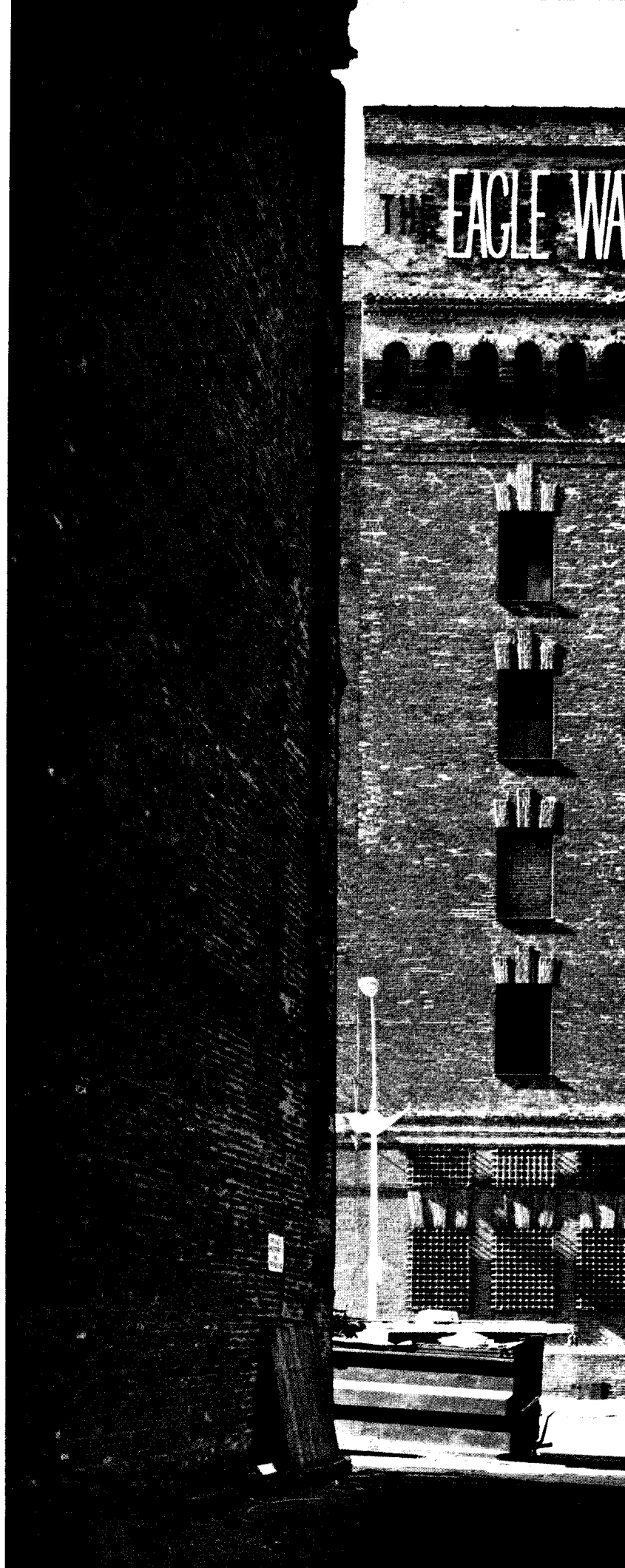


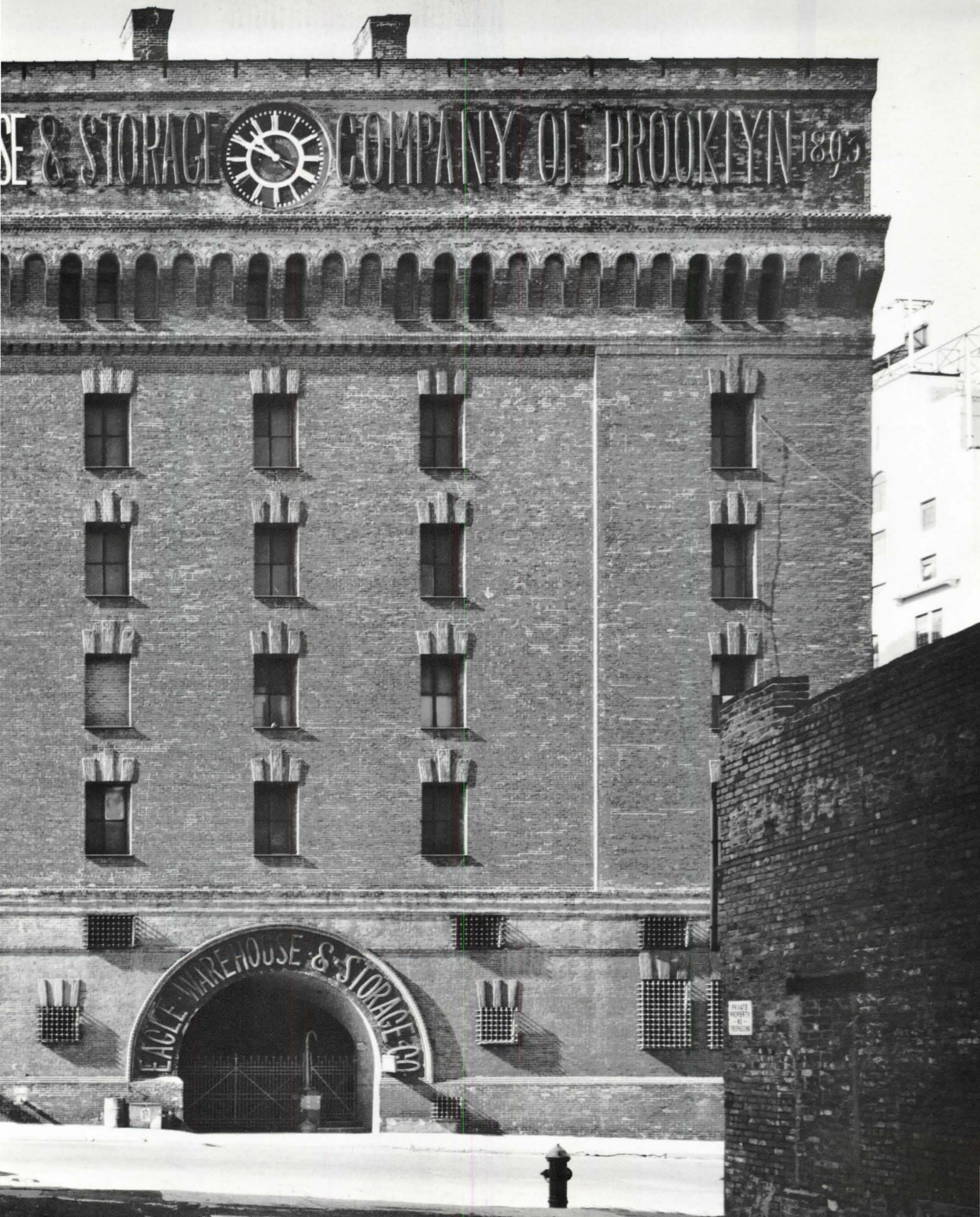


ENGINE CO. 20
LADDER CO. 110
CHIEF 31ST BATT.

HOUSE
OF

One would be hard put to find architectural lettering elsewhere as fine as that on the frieze and around the arched entrance of the Eagle Warehouse & Storage Co. Here the lettering is informative, legible and above all architectural in scale and character. Probably only after 1925 are there comparable examples in Western architecture. This brick palazzo was built in 1893 near the Brooklyn waterfront beside the two most trafficked routes to Manhattan. Since the closing of the Fulton Ferry, Frank Freeman's warehouse has dominated a neglected backwater between the Heights and the Brooklyn Bridge.





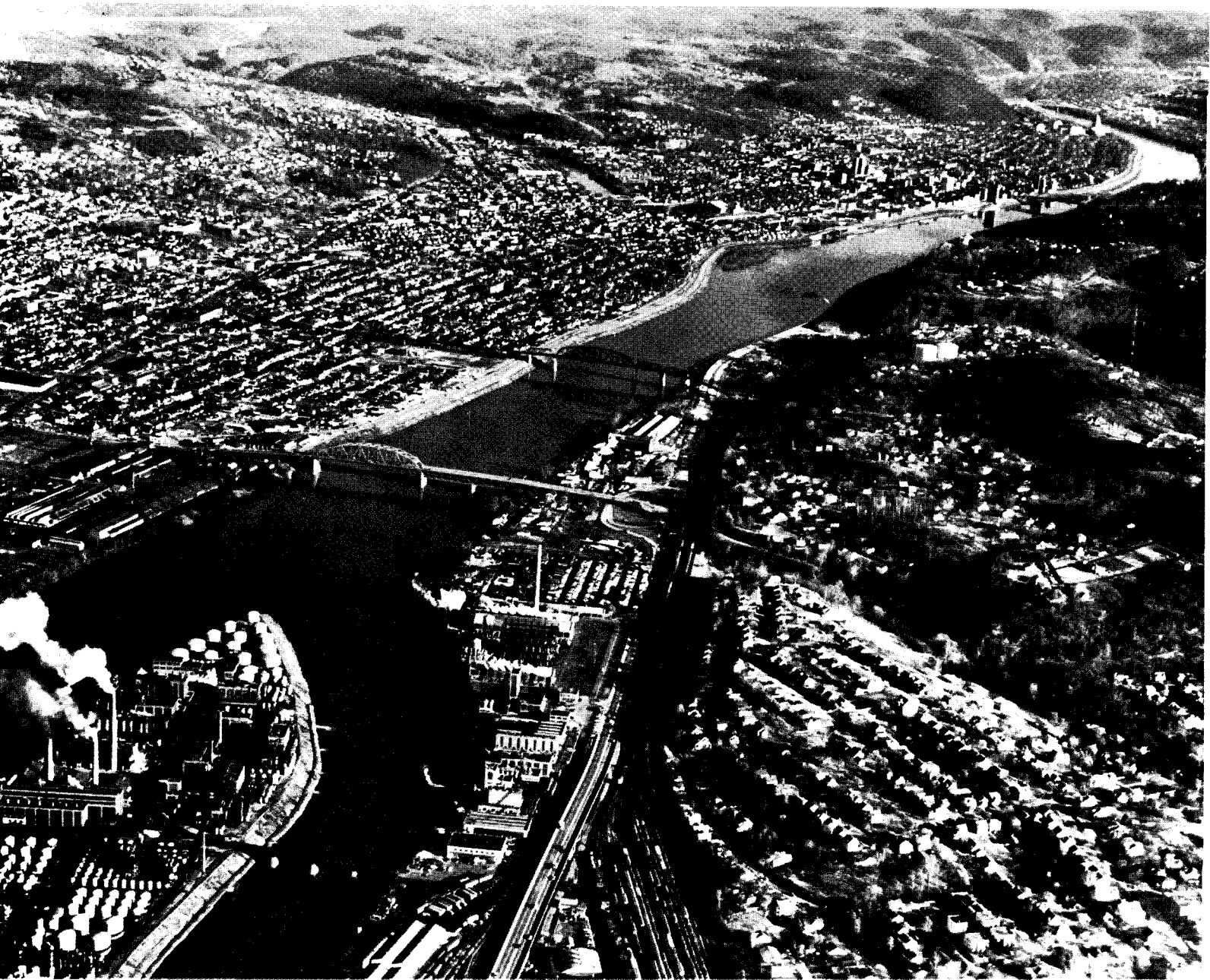
E & STORAGE



COMPANY OF BROOKLYN 1893

EAGLE WAREHOUSE & STORAGE

PLEASE
REPORT
ALL
VIOLATIONS



PROGRESS AND PROTEST

Advocacy planning in Charleston, West Virginia, as a city grapples with the need to plan, and as citizens struggle for the right to participate.

Urban planning is as complex as urban life, and without a scorecard it can be difficult to tell the players apart. In this report of recent developments in Charleston, W. Va., a scorecard in hand at the outset is almost crucial.

Very briefly, then, three plans have come under fire from Charlestonians—1) a comprehensive plan for the entire city up to 1985; 2) an urban renewal plan for the Triangle neighborhood, a choice piece of in-town land; and 3) the plans for three Interstate highways due to converge in the city in five years.

The official bodies on which these attacks have been launched are (respectively): 1) the Municipal Planning Commission; 2) the Charleston Urban Renewal Authority; and 3) the State Road Commission. The protesting groups who have rallied to the specific situation or have grown to meet it are: 1) the Intra-City Council of Neighborhoods; 2) the Triangle Improvement Council; and 3) the Architectural League of Greater Charleston. The first two of these groups employed an advocate planner.

This report is intended not so much to identify heroes and villains as to look, in detail, at the course and content of opposition. The experience of this small city—up to its ears in planning and change—is not unusual. Its experience with conflict is unusual. What this experience says about planning in general (and advocacy planning in specific) is worth examining in some detail.

Babbittry along the Ruhr

Charleston lies in a valley less than a mile wide; 85 per cent of its land is in hills and "hollers" (left, top). It is a quiet place with fewer than 90,000 people—capital and largest city of a slow-moving, impoverished state.

The valley has been called "the Ruhr of the U.S. chemical industry"—Union Carbide and a dozen other chemical companies have settled in the Kanawha Valley. Yet more than half the residents earn less than \$6,000; only one-eighth (including 20 millionaires) earn more than \$10,000. Many of the young people leave.

Local government is described by one newsman as "pure hickism, sheer Babbittry." But an opposition of outspoken councilmen is taking shape (one man, white, a neo-Populist; another, black, a chemist out of NAACP)—a coalition of men

who would probably be enemies in another city. The existence of a power structure is denied by anyone who might be considered a card-carrying member, although one powerful man concedes that there is "a certain cohesion with a mutuality of interests." The minority population is below 10 per cent—and declining—but the legacy of John L. Lewis allows poor Appalachians, black and white, to work together for *their* mutual interests.

Physical changes are fast approaching. Three urban renewal projects will change the character of the center of town (one is already completed, the second just approved, the third just submitted). The state is doing its own "renewal" at the Capitol. Much of downtown—now in small buildings and large parking lots (left, bottom)—is expected to be rebuilt in the next 25 years. A Community Renewal Program, not yet approved, proposes a series of action projects. And, not least, three Interstate highways will converge in this narrow valley in the early '70s. Counting only the projects already programmed (excluding those in the CRP), a staggering 10 per cent of the population, most of them poor, will be displaced in the next few years. With the CRP projects, a total of 4,500 families could be displaced by 1995.

These plans are not going unchallenged. The first to be questioned was the Comprehensive Plan prepared by the Municipal Planning Commission and its outside consultants. Three years in the making, the Comprehensive Plan is no better or worse than most such documents. In standard planning-ese, it discusses the character and problems of the city; it states objectives so blandly that few are likely to quarrel with them; it outlines policies on parks, schools, hospitals, etc., that could easily have been written by the departments involved. (The plan's view on the adequacy of public transit, in fact, is based on information supplied by owners and operators of the transit companies.) A major part of the plan analyzes the impact of the Interstates on the local traffic system. Missing from the document is the urgency with which the consultants—Marcou, O'Leary & Associates—first reacted to Charleston; they recall their first impression of a relocation crisis overriding all else.

The Community Renewal Program is a more solid document, prepared at the same time and by the same firm (with social and economic studies subcontracted to Hammer, Greene, Siler Associates, also of Washington, D.C.). The CRP designates a series of "action projects" and "policy treatment areas," and spells out mechanisms for relocation, citizen participation, and funding.

The first advocacy

Reviewing drafts of the plan, enough people felt left out or threatened to persuade a local antipoverty worker, Norman Kilpatrick, to take action. He knew about advocacy planners, and helped get OEO funds to retain one on behalf of the Intra-City Council of Neighborhoods, a group of seven (now eight) areas—some black, some white, some mixed—with 20,000 people. They hired Abeles, Schwartz & Associates, a New York firm familiar with West Virginia from several recent consulting jobs; its two principals are housing consultants to the national OEO.

Peter Abeles could only spend a brief two weeks with the documents, the city, and the ICCN people. But at a public hearing last August, he spoke for people who trusted him and applauded him. (The project director for Marcou, O'Leary was silent that evening, leaving the presentation to local planners and the rebuttal to later memos.)

At the hearing, Abeles asserted that the lack of a neighborhood-by-neighborhood analysis made it impossible to use the document for policy decisions; that deleterious effects of the Interstates were not evaluated; that subsoil conditions causing poor drainage, slippage, and flooding were not mentioned; that the downtown area was overemphasized at the expense of the whole community; that the economic forecast for the city was "overly optimistic"; and that factors outside the city—such as the possible abandonment of the present airport, and the heavy pollution from the chemical plants—were not considered.

Abeles charged, also, that proposals for highrise housing in the valley failed to consider possibilities for development in the hills, hills, and ridges. Charleston was being urged to become a "city of the future" while the city's basic needs were being ignored.

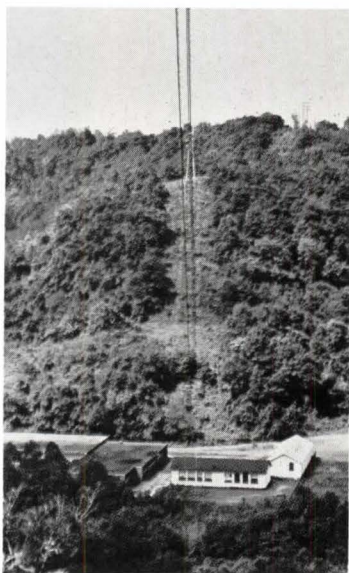


River (the plan hardly mentions the river), and for the encouragement of hillside housing for low- and middle-income families. He suggested a kind of Homestead Act in the hills, with the city buying land, putting in utilities, and selling parcels to people who would build their homes over a period of years, in the tradition (above) of these self-reliant mountain people.

In discussing a 2,500-family New Town proposed for North Charleston (a part of the city, and of ICCN), Abeles argued that critical air pollution there made the proposal "ludicrous." The entire valley has a serious pollution problem, severe in certain areas—the land in North Charleston is level with stacks from the chemical plants across the river (below). Unequivocal written advice by the state pollution control board against fur-

ther housing in that area was ignored by the city's planners.

Turning to the specific neighborhoods he represented, Abeles urged the city to equalize the provision of basic services. His clients had pointed out numerous grievances that went unnoticed by Marcou. O'Leary's staff member during his one-year residence in Charleston. Among the conditions needing attention: a school with high-tension wires over it (below); a residential area lacking the secondary



egress needed during sudden chemical accidents; other areas lacking adequate sanitary and storm sewers (sites of flooding and drowning); still others lacking fire hydrants and safe roads.

In the following months, the city made 17 changes in the plan—dropping the New Town proposal, lowering the density some-

what in various places, and adding needed facilities in the seven neighborhoods. O'Leary suggests that the New Town site was never considered ideal, but was seen "in terms of a strategy, not as a discrete unit of land"—it is city-owned and thus immediately available as a relocation resource. Many of the Abeles criticisms went unanswered. A year later, Marcou, O'Leary did not recall the Homestead proposal, and the mayor did not understand it to be self-supporting. The CRP, now outdated, was never approved; a hearing on it was cancelled and never rescheduled.

Renewal for whom?

Opposition to an urban renewal proposal for the Triangle, one of the ICCN neighborhoods, came next. Again Abeles was retained. The Triangle's 82 acres of prime valley land are slated for almost total clearance through urban renewal, and residents of one of West Virginia's largest black communities are due for "removal." Most of the households are white (largely in single-person families); most of the people are black, however, according to Triangle people who disagree with official figures.

"We're not against upgrading, just against elimination," says the president of the Triangle Improvement Council. The city looks at it differently. "This project is for the whole community, not for this small area," says Eric Hemphill, executive director of the Urban Renewal Authority. City officials speak of a 100:1 bargain—the value of completed redevelopment might reach \$75

million, for a city investment of about \$726,000. "The whole point of the Triangle renewal," says a councilman opposed to the plan, "was to get more land for the central business district."

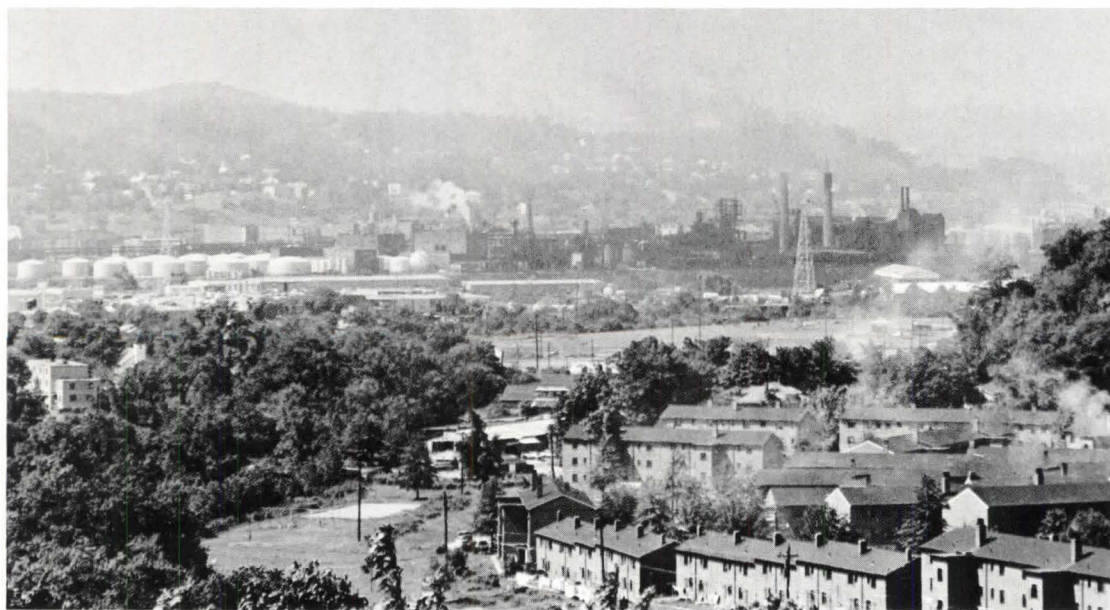
TIC's objections to the plan and its procedures are numerous: that the project's densities of up to 80 units per acre are inappropriate to the life style of West Virginians (Hemphill says that a developer will not necessarily utilize the maximum allowable density); that so much commercial reuse is unjustified; and that the proposed uses reflect a "pattern of favoritism"—two all-white organizations, the Beni Kedem Shrine and the Society of Colonial Dames, will get land; a local hospital will get land for parking (one of its board members is an urban renewal commissioner); and one of the few business buildings to remain is owned by a member of City Council.

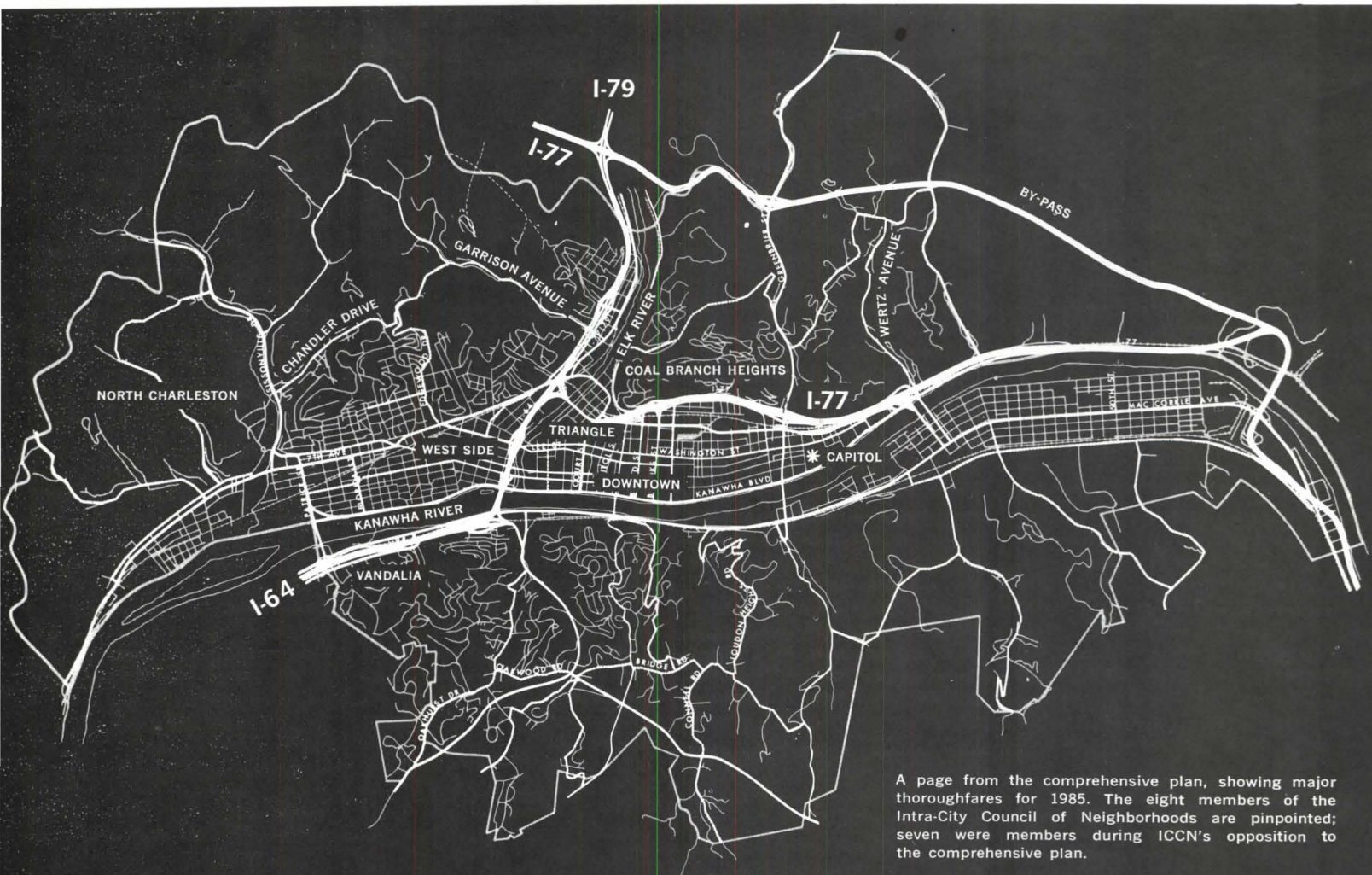
In addition, TIC charges that the city has overestimated the availability of relocation housing in its application to HUD; has not itemized the 1,140 families to be displaced by the Interstates (Form 6122 of the urban renewal application must include displacees from all other public projects); that the major relocation resource (in North Charleston) is remote, and not due for upgrading; and that the clearance schedule—the black portion first—will result in two segregated housing complexes.

Rehabilitation is a major point of contention. TIC cites an unreleased URA survey of 1966, with only 60 per cent of the housing substandard; the "official" survey, dated 1967, has 92 per cent of the 483 buildings substandard. "If the Triangle project were in North Charleston," says the local HUD man, "I'd go along with some rehabilitation, but the land is just too valuable. One of the biggest interchanges will be a stone's throw away. And the 40 or so good houses are too scattered to be salvageable."

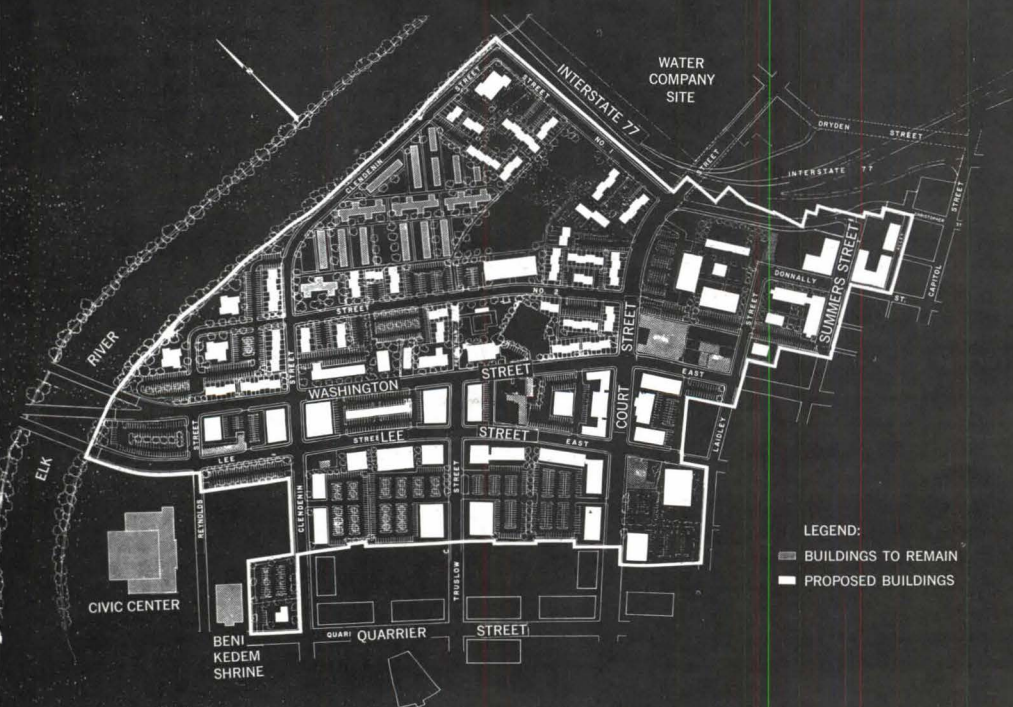
Negotiations and accusations

TIC unveiled an alternate plan last October, changing the boundaries somewhat and leaving the area largely in residential use (see maps). The URA ruled against each change. Most TIC proposals were again quickly rejected during a 60-day negotiating period this spring, with two remaining for consideration: to

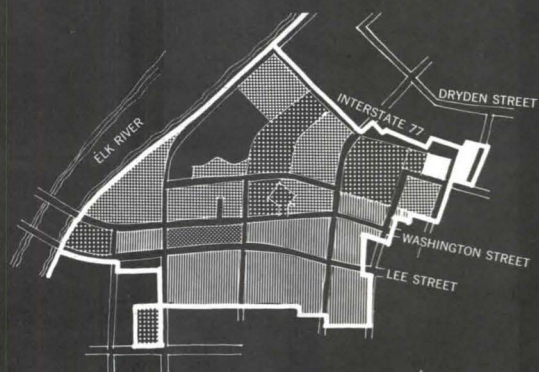




A page from the comprehensive plan, showing major thoroughfares for 1985. The eight members of the Intra-City Council of Neighborhoods are pinpointed; seven were members during ICCN's opposition to the comprehensive plan.



ILLUSTRATIVE SITE PLAN
Urban Renewal Authority's plan for the Triangle



PLAN BY URBAN RENEWAL AUTHORITY
existing public housing excluded



ALTERNATE PLAN BY TRIANGLE IMPROVEMENT COUNCIL
existing public housing rehabilitated



change the area south of Washington Street from commercial reuse to residential (the URA said no, but will allow residences within the commercial designation); and to rehabilitate 25-50 houses, using federal loans and grants available to property owners in the renewal area (the URA said no).

"We made all the concessions," says Hemphill. Says Abeles, "They wouldn't negotiate; there was no horsetrading." The URA later refused to pay the fee it had promised Abeles as TIC's counsel during the negotiating period, and the City Council assumed the commitment calling it part of the city's share of the renewal in any case. One URA commissioner resigned in protest.

A Project Area Committee has been a sore point, both cause and effect of the breakdown in communication. The first PAC, given to TIC's president to choose, was disbanded as unrepresentative. A new one was chosen—according to the mayor, from a list of 100 people who indicated they'd be available; but according to TIC, from people who were approached on the street. In any event, a PAC should be *elected*, according to HUD. "They should have had a PAC from the beginning," says the local HUD office.

Triangle people feel they have been treated shabbily, denied access to information, and denied serious consideration of their views. "We are not human trash to be dumped from one landfill to another," says one man.

At the suggestion of "someone at HUD" (outside Charleston's

Region II), Hemphill's experience as head of renewal in Kingston, N.Y., was investigated. His demolition and relocation practices had brought unusual action—HUD suspended his salary and a U.S. Congressman conducted an inquiry into the whole renewal operation. In the knock-down/drag-out fight that ensued, the city council of Kingston also voted to suspend his salary, and it "became known" that renewal funds would be held up by Hemphill's continued presence in Kingston. He left soon afterward, for Charleston. He had the full support of the Kingston URA, however, which resigned to the last man at his departure. Now, two years later, when it was suggested that Hemphill should leave Charleston, the revelations were blasted as "character assassination."

The protesters, of course, have been called mentally unbalanced, obstructive, and unrepresentative ("70 per cent of the people never say a word"). A TIC officer replies: "I challenge you to find any organization more responsible; we've petitioned formally and informally. We broke no guidelines, we've gone practically on our knees. They've perennially broken the guidelines."

The renewal plan is now in Washington, and TIC is filing an administrative complaint seeking to have the plan rejected (thus losing one of its few Establishment friends, the head of the new West Virginia Housing Development Fund, who had been trying to get TIC—along with several other nonprofit organizations—named developer of some

housing in the renewal area). TIC did not want to be accused later of having sat on its rights, but it was strongly urged to let the plan go unopposed now and get it changed during execution. Abeles left it up to TIC to decide how hard to fight the plan, after giving TIC his view of the consequences.

Valuable land in contention

Just northeast of the renewal area is a large empty site—nine acres acquired in 1966 by the West Virginia Water Company for a treatment plant. Hastily cleared of some 250 people, the land is still empty (above).

HUD has suggested that the city acquire the site for housing under the federal Open Land program. But the City Council, having rezoned the land for residential use in April, zoned it back to industrial use two weeks later—under what is referred to as "unusual influence."

The \$34-million project is expected to double or triple the cost of water to users. The city's director of public works, previously an engineer with the water company, thinks that the most economical site for the plant is out of town at the source of supply. The state supreme court will shortly hear an appeal of Public Service Commission approval of the Triangle site.

In the meantime, the company has permitted the cleared site to be used for recreation, but balked at its temporary use for mobile homes for relocation. This summer, a group of black youths created a Tent City ("no one said 'recreation' couldn't in-

clude camping") to dramatize the demand for more housing.

Three routes converging

Paired with the hope of building housing on the water company site is the hope of moving the proposed Interstate I-77 onto the tracks at the far side of that site, preventing the Triangle from being bisected. One Triangle woman was told it would cost \$12 million to remove the bend from the road. "Why wasn't it straight in the first place?" she asks. It was straight, according to a drawing made in the '50s.

Robert Hayne, the traffic consultant who serves as Interstate Coordinator for the city (although many regard him as a spokesman for state wishes and in fact he does other consultant work for the state), says that the water company approached the State Road Commission in late '65 or early '66 about the location of the right of way. When the SRC said it wouldn't need this land, the water company acquired it. (Triangle residents suspect that the coordination was more carefully worked out. Certainly the claim by Hayne—that because of a two-level interchange (below) "valuable land was saved for the site of the proposed water treatment plant"—does not show great concern either for displaced or for the scarcity of land for housing.)

I-77 is only one of the three Interstate routes that will go through Charleston. This road will go north to Akron, and south to Charlotte; a second route, I-64, will go west to St. Louis, and east to Richmond; a third route, I-79, will originate in Charleston and go northeast to Pittsburgh. A spokesman for



the U.S. Bureau of Public Roads refers to Charleston as having "one of the three most critical urban penetrations" in the entire Interstate system.

Triangle people are not the only ones upset by the routing. Across the Kanawha River to the south, owners of expensive homes are incensed at the low bids offered by the SRC: they suspect "deals" about whose land was taken and whose was spared.

Forty-six of the city's architects banded together as a result of the road crisis, forming an Architectural League of Greater Charleston. Accepting the chosen corridors, they ask why the Interstates can't be used as a "springboard to improvement" through the federal government's joint development program. They hammer away at the use of air rights over the railroad—to avoid scarring the scenic hillsides, to provide multiple use of precious valley land, and to preserve and enlarge the tax base of the city. They point out that the federal government will pay nine-tenths of the basic cost of such projects.

Largely through their efforts, the road will be built on structure, not fill, at three places—one in the Triangle and two across the Elk River in the West Side. The land underneath will be available for parking, recreation or other uses.

The architects are "still fighting," reports League activist C. E. Silling; they are trying to have "the entire East Side intrusion" built on structure. Clarence Moran, an architect who is director of the county's Regional Development Authority, says, "If some of it is on structure, why not all?" He claims that locating the road over the railroad was never carefully considered by the SRC, and bona fide estimates were never given. Nor were other possibilities investigated, he says; perhaps the railroad track could have been removed altogether, and the two railroads (north and south of the river) made into one.

Architects have waited in vain for an extensive model of the roads and the existing topography promised by the SRC. One architect, Robert Martens, a prime mover in the Architectural League, built an 8 by 9 ft. model himself, donating it to the city. The model was never used. Four architects offered their services to review comparative designs but received no precise information. Two architects wrote last

year's country-music hit, "The Interstate Is Coming Through My Outhouse"—not so much illuminating a specific situation as the general problem.

The SRC's argument against joint development is that having to elevate the road over the railroad on the south side and the flood plain on the north would put it too high to have a platform above it. Also, says Hayne, with space available for as little as \$5 per sq. ft., it makes no sense economically to stack the road with other uses. (This seems inconsistent with the city's pressure for high density because of the scarcity of land.)

Hayne has repeatedly warned that any delays would be "disastrous"—even "catastrophic." Moran expresses the views of the architects when he says, "We'll be looking at this thing for a long time. Is one more year going to make that much difference?" The Mayor's Committee on the Interstate (formed in response to the architects' complaints) is as firm as Hayne; one member denies that cutting into the rock would leave ugly scars—"God made the rocks just as He did the trees."

Now the governor is concerned, though. In July, he ordered the SRC to study the possibility of moving the road off the hillside behind the Capitol and putting it on stilts over the railroad. "We're not going to lose that mountain," he says. His secretary of state, Jay Rockefeller (incidentally, a Democrat), contends that if the governor (incidentally, a Republican) can move the road to preserve the scenery, he can certainly move to put the water company site, and more housing, into the Triangle.

This latter struggle entered a new phase in mid-September when the SRC began speeding up demolition in the Triangle; residents told the SRC their local offices were not safe, and state troopers came in with shotguns. Following this flareup, Secretary Volpe halted *all* demolition in the Triangle, and ordered an investigation of all aspects—including relocation—of this segment of the route. Only two weeks earlier he had pledged to block any new federal highway project that did not have relocation housing *already built* for displacees. James Braman, who is DOT's Assistant Secretary for Urban Systems and Environment, and who recently helped

to kill the New Orleans Expressway, is in charge of the review.

Through it all, the SRC has enjoyed less than full credibility—partly, no doubt, because of the scandals of recent years. Among other persons (including a former governor who was indicted in 1968 but not convicted), the State Road Commissioner and his deputy commissioner were sentenced to two years in federal prison for an interstate bribery plot, another SRC official got four years for making off with government property, and this spring an SRC supervisor was fired on grounds of falsifying pay records. (There are also allegations that certain members of the county's governing body, having received illegal advance notice of the final location of the road, purchased land along the right-of-way.) So, although the SRC says the road is fully approved, there seems to be some doubt as to whether the specific path, or only the general corridor, is approved. And now there is renewed opposition to having the Interstates *anywhere* within the city.

In-city or bypass routing

The city's planning director, Theodore Wilding, took the road as given when he arrived in Charleston four years ago. The Marcou, O'Leary firm, too, accepted the road's location, feeling that their professional responsibility was to the municipal agency; although they had some early doubts, they felt it was not good professional practice to raise such questions publicly.

"The road almost had to be in the valley floor, since the main traffic generators are there," says Moran. Abeles agrees that improvement of valley traffic is needed, "but when you have kidney trouble, you don't go for a heart operation." The Interstate Coordinator believes that eventually a bypass will be needed, but if it had been built first, the city would never have gotten the in-city route. A study in 1964 by Tippetts, Abbott, McCarthy & Stratton investigated about a dozen routes for the Interstate system, strongly recommending this one. The Chamber of Commerce has steadfastly pushed the in-city route, initially in the face of city objections (in the '50s). They believe the Interstates will stimulate the city, relieve its traffic problems, and end its isolation. One newspaper columnist

also suggested it would provide "a long-needed shift in the city's population"—a curious phrase that is interpreted in some quarters as a euphemism for Negro removal. Abeles asserts that, as proven elsewhere, the in-city route will encourage the development of suburban shopping (now almost nil) more than it will aid the downtown area.

The relocation crisis

The Interstates will also, of course, displace some 1,140 families—maybe more, when all the ramps are counted. The need for replacement housing between '66 and '71, says the CRP, is a staggering 2,879 units. All housing in the city, as of 1960, totalled only 28,610 units, and the number has *decreased* since then.

In a sense, the city makes no bones about the deficiency. The city's planning director has said that of the 2,129 families to be displaced by 1971, most will be lost to the city. In September, a postal delivery report confirmed this forecast, projecting a decrease of 3,000 people between 1960 and '70. The mayor calls this "the price of progress." Abeles says: "They think that people are dispensable, that there are plenty more from the hills. But the minute you treat one human as less valuable than the others, you devalue everyone."

But an urban renewal application requires a "relocation plan," so the URA has one for the Triangle. Abeles called it a fraud at a public hearing, and was almost elbowed off his feet by the chairman of the URA. The director of renewal defends the plan. "If housing develops as we think, we'll have enough." Yet his list of anticipated projects includes many that are not yet approved, and one that is in a town 20 miles away. And basic statistics are in contention: the head of the new state Housing Development Fund says the URA has an unreleased study showing 125 more families being displaced than are listed on the application to HUD.

Other agencies are also under attack. A devastating study of the Housing Authority, done by two "neutral" councilmen, put it this way: "Although we respect the delusions of the position taken by the Housing Authority that the quantity of public housing at the moment is adequate and that present plans will provide for the interstate and urban re-

newal impact, we doubt the strength of their position."

The SRC, too, has been accused of playing fast and loose on relocation; Legal Aid Society lawyers say that in an unsuccessful case brought by TIC on the road's route through the Triangle, the SRC listed as relocation resources known brothels, and hotel rooms (without kitchen or bath) measuring only 90 sq. ft.

In the absence of coordination, two or more agencies can easily count the same units for different displacees. HUD has repeatedly urged the city to set up a central agency for all displacees, but the SRC would prefer to operate by itself, and Planning Director Wilding's written advice to the mayor was that "we should face up to the Feds and tell them that we have no desire, or no possibility, of creating a centralized relocation agency, and have tried in the past."

Relocation was one of the major causes of HUD's delay last year—for over a year—in recertifying the city's Workable Program for Community Improvement (without which federal funding ceases). Wilding's explanation for HUD's caution—"In the immediate past HUD has been criticized because it has recertified some city's WPCI and immediately following recertification major riots have occurred in these cities"—is regarded as curious, but imaginative. Wilding was forced to admit, on one point, that 100 families displaced by the Capitol expansion were unlisted "purely by accidental omission," although one councilman claims that the planning director was made aware of the omission in ample time to correct it. And so it goes.

The latest on relocation from HUD came in August, from Samuel Hawthorn of the regional office in Philadelphia—the announcement of a critical one-year review of relocation. HUD will require detailed monthly reports of the precise relocation of displacees, and tangible signs of progress toward 300 units of new housing. HUD makes it quite clear that "no acquisition/relocation will take place until a resource(s) is available for the displacee. . . . It must be emphasized that failure to meet the aforementioned goals could result in cessation of all HUD-assisted programs in the locality."

The release of this letter a

month later, not by the mayor (to whom it was addressed) but by an opposition councilman, prompted the mayor to demand that President Nixon investigate HUD for "incompetence, inefficiencies, not doing their homework, and wasting the taxpayers' money." The mayor particularly asked for Hawthorn's dismissal, saying that the code deficiencies mentioned in the letter had already been corrected, and that the "warnings" on relocation were simply the agreements already reached between the city and HUD. This in turn prompted another opposition councilman to suggest his own investigation of HUD—specifically why the Workable Program was recertified at all, in mid '69, since it was hardly different from the submission that was rejected in early '68.

The practice of advocacy

"Peter Abeles coming into Charleston is like Admiral Perry opening up Japan," says a local newsman; "Things can never be the same again." Abeles is more modest. He sees a small success in the changing of a few policies, but a greater potential impact in the possibility that "nobody will try the fast ones anymore."

Advocacy planning has unquestionably entered the vocabulary of Charlestonians. Some claim not to understand it; the conservative *Daily Mail* complains that "the reasons why it's superior to plain planning are far from clear." Others understand it in their own way: Planning Director Wilding says, "I'm an advocate planner. All planners are, if they're doing their job." In fact, the new Community Renewal Program recommends "independent technical advice" for local groups, since local staff members cannot give an objective view of plans they have themselves created.

There are unofficial ground rules, though. "Advocacy must be based on facts," say Marcou, O'Leary, implying that much of Abeles' analysis wasn't. "You have to know what you're talking about," says Abeles. "No one ever said I was wrong."

Should the advocate work with the local agency? Wilding says, "Data collection is a big part of planning, and we had all the data. He never asked for it." Abeles reports that he sought information on one subject and found it inadequate. But in any



case, he wanted to use only what was in the written documents, wanted to avoid a "professional buddy-buddy" situation with local planners, and did not believe he would have access to information that had already been denied his clients. At one point he received what was probably an "overture" to meet with city officials, but since his clients were to be excluded, he declined.

Could the city's consultants and the advocate planner have worked together? "It's an interesting idea," says O'Leary. Says Abeles, "If I'd been in from the beginning, on their backs, the city would have gotten a much snappier plan."

Abeles believes that HUD should put 10 to 15 per cent of its planning money into advocacy planning—"to keep everyone honest." He feels that the legal basis of planning lies not so much in the state enabling acts, zoning, subdivision, etc., as people think, but in the tradition of law itself. "In law, there are two equal advocates; in planning, there's only one side."

Some sectors of the community, in fact, were horrified to see the federal government funding "two plans"—one out

of HUD, the other out of OEO. Abeles issued a formal statement: "Our system of government has as one of its guiding principles that groups and individuals must have available to them the strongest and best representation when there are disputes." Although relatively new to planning, "the concept of retaining an expert to advocate one's position is common to any private citizen who retains counsel to advise and protect his position."

Marcou, O'Leary are not opposed to advocacy; they have been involved in Chicago in a process they call "responsible militancy"—aiding residents of Lawndale to redevelop their neighborhood under local control; OEO has just granted \$1,100,000 to the economic arm of their client, the Lawndale People's Planning & Action Conference. But O'Leary has a word of caution: "The political process is to reconcile, develop consensus, negotiate. If the planning process emphasizes disagreement, it's wrong. Advocacy can end up like the poverty program, fighting over a bone that has no flesh on it." He sees the real work of planners as one of finding the mechanisms to get



things done. And DOT is where the money is today—not HUD. With 15 per cent of the Interstates left to be built, he says, involving 40 per cent of the program's funds and some of the most destructive and controversial urban intrusions, DOT may have to make some compromises to get the job finished. He asks why the joint development concept can't be broadened to require the construction of housing for every person displaced by highway construction.

Special interests

It is alleged that groups hiring an advocate planner are only pleading for their own concerns, with no interest in the "total problem." But what is any city's "total problem"—who defines it, and who makes the crucial decisions?

Every city has its different groups, each seeing its interests best served by different policies. A growing number of planners see their job as maximizing the opportunities of all people in a city, rather than maximizing the value of all land in the city.

But "the vested interests want to stay vested," as one vested citizen puts it. "Losing a fight is

one thing," counters a city official sympathetic to the protesters, "but not being able to fight is another." A less sympathetic view is summarized by the head of the Chamber of Commerce: "the egg was already scrambled, now they want it fried. Next time let them *have* a voice. Of course, they did this time," he adds hastily.

It won't be easy, considering Charleston's record. Only ten months ago, the URA spelled out to HUD an example of resident involvement—"a clean-up campaign whereby existing vacant lots can be cleared of dangerous rubbish (rusty nails, glass, etc.). Of course, resident involvement in such aspects as planning and other technical areas is not feasible." More recently, the planning department tried to rush through a new zoning ordinance and failed to make maps available until an hour before the public hearing. (The document itself was only distributed two days earlier.) And, concerning the comprehensive plan, HUD went on record in August with the statement that "inadequate meaningful citizen involvement and inadequate representation of low-income and minority

group members during development of the plan appears to be one of the main causes of the controversy."

The constituency of some bodies is changing—the URA and the Planning Commission now have "minority" representatives—but the same mechanisms for communication (or lack of it) may still persist. Local planners seem to think of "communication" as a one-way street, an attempt to explain without jargon what the professionals have already decided. The Housing Authority, too, has received new blood, which may result—at last—in the serious attempt to utilize scattered sites, turnkey housing, and leased housing, all of which have been resisted by the ultra-conservative body. And the Housing Development Fund is a new force in the state, in a situation where few banks have the capability for dealing with federal requirements, and only two builders in the state erect more than 100 houses a year. (The Fund faces a constitutional fight this fall.)

But to some extent the city may be stuck with plans from more benighted times. Charlestonians may well look with envy

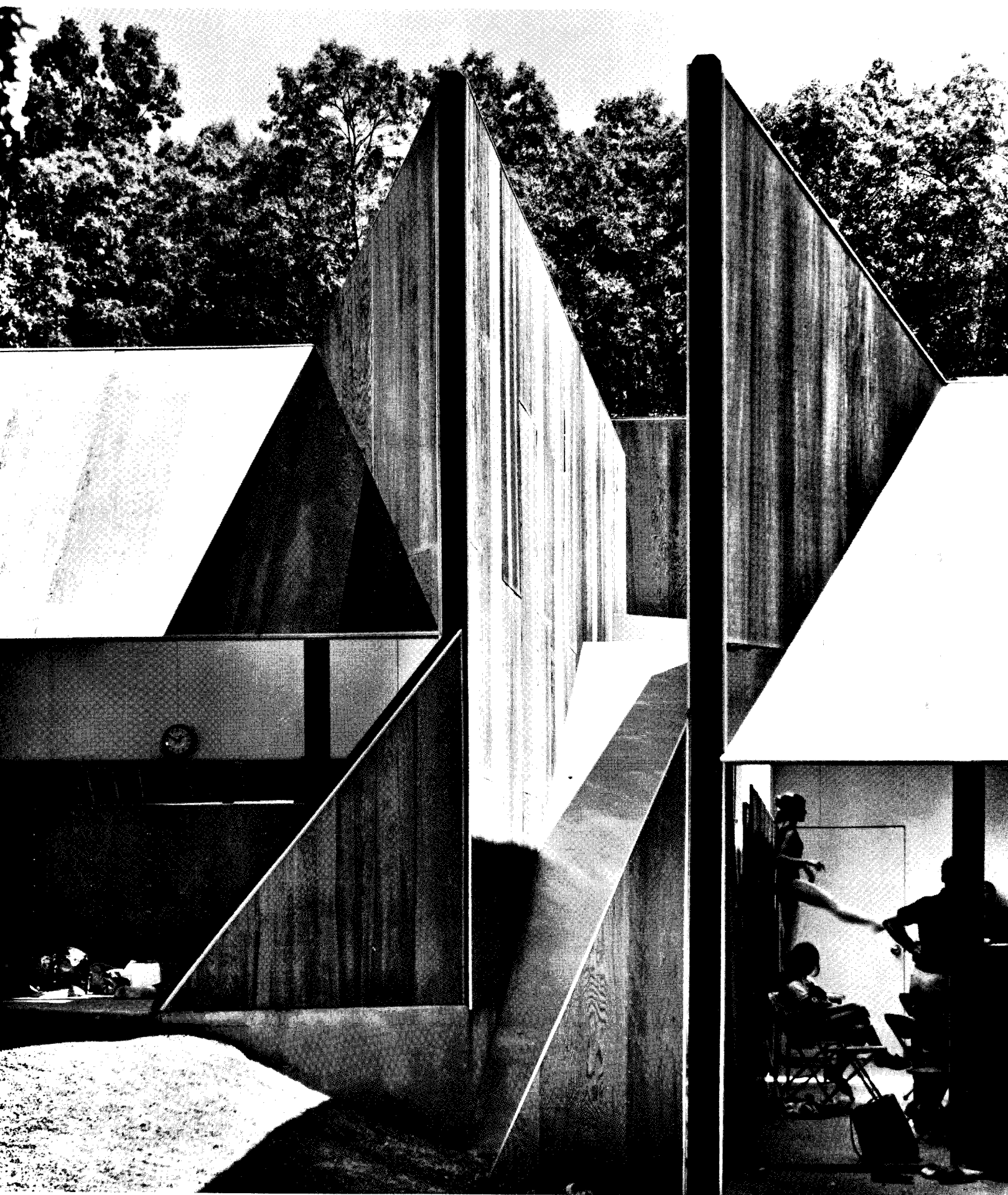
at a major city not far away, now in preliminary studies for a pioneering joint development project that uses air rights over an Interstate highway. The planners are Marcou, O'Leary. This firm is also looking into a new kind of cost-benefit analysis (one that includes social factors).

Charleston's first urban renewal project (above, left and right) is all that is visible so far on the skyline. Pressure will increase to see something realized for what one local architect/planner estimates is \$1 million spent in the city on planning in recent years—probably closer to \$2 million, counting the state's highway planning. (The advocacy planner received \$6,000 for his firm's two-year involvement.)

By 1985, reads an editorial in the liberal *Charleston Gazette*, the city will show "a bright and shiny face to the casual visitor. But underneath its gleaming facade, the old sickness of special interest and deprivation of human rights will continue to eat away at the city's vitality." Some will argue that this isn't true; others, that it need not be.

—ELLEN PERRY BERKELEY

PHOTOGRAPHS: Roy Berkeley, except page 48, top, W. E. Bollinger & Sons.



SUMMER DAY ART CENTER

Every weekday last summer, 2,000 children in yellow school buses converged on a 240-acre tract of woods in the middle of Long Island. Many of them spent well over an hour traveling from New York City to reach a special kind of day camp, the Usdan Center for the Performing Arts. Here they could practice music, dance, and visual arts under the guidance of nationally known performers and teachers; and between their strictly programmed sessions with the arts, they could lunch in the woods, swim, or play volleyball.

The mission of the camp's architects, Conklin & Rossant, was to provide sheltered spaces where these 2,000 (eventually 3,000) kids could concentrate on their arts without being either isolated from nature or distracted by other activities. They gave each space only as much

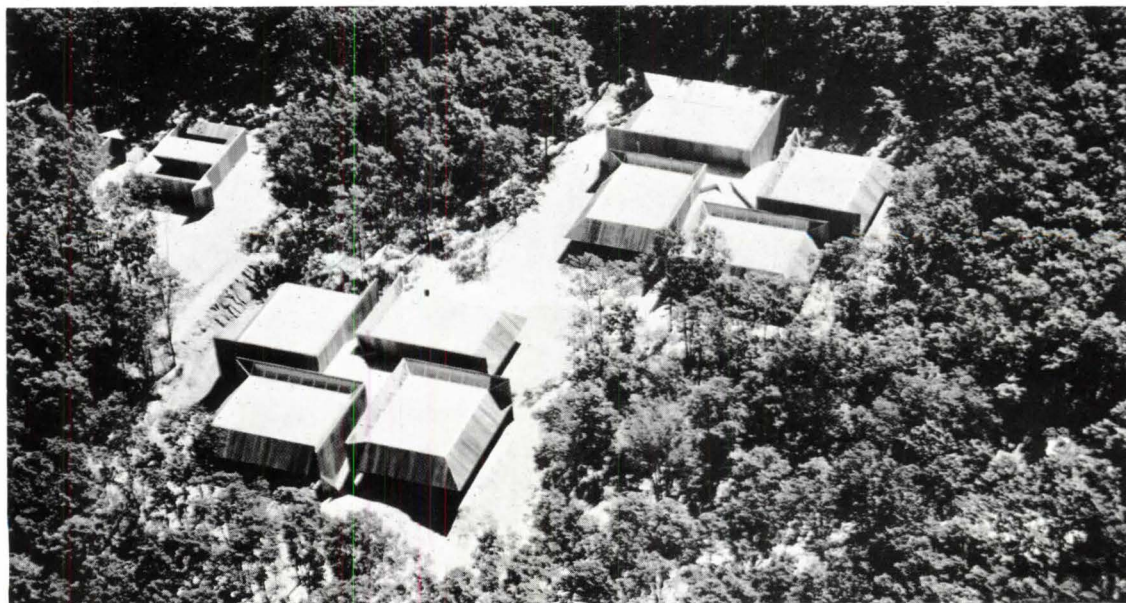
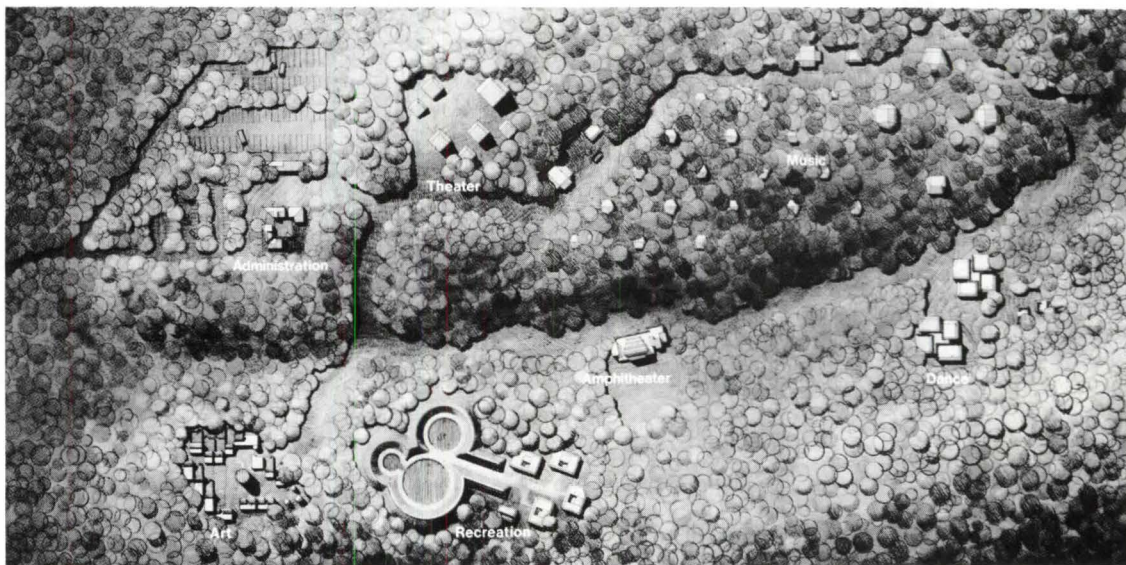
enclosure as needed to keep out weather and to keep in sound. And they designed all structures to function with natural lighting and ventilation only.

Each of the arts, of course, required a different kind of shelter, and the architects have emphasized these distinctions by exaggerating certain functional features in each area, such as the projecting walls of the dance studios (facing page). The resulting forms give the camp a festive look, deliberately unlike the campers' home environments or the spartan shelters of sports-oriented camps.

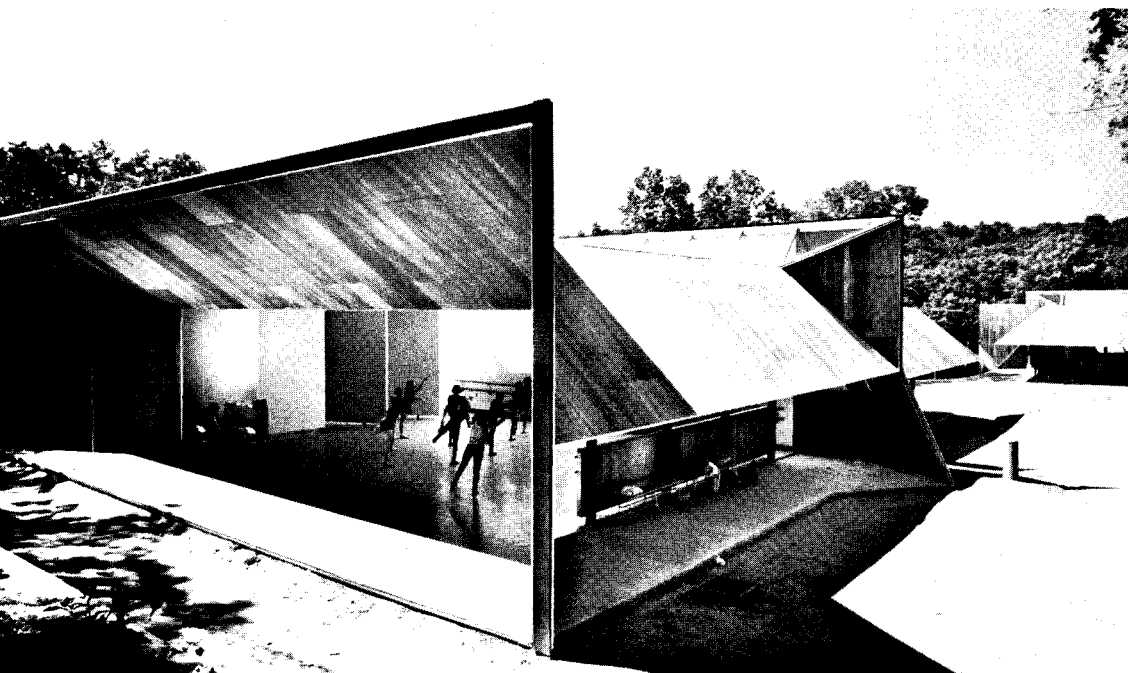
All of the camp's widely varied structures have one feature in common: the use of plywood for virtually all exposed surfaces, including roofs—a rare, if not unique, application of the material. The redwood-surfaced sheets (chosen, incidentally, be-

fore redwood conservation became a major issue) have been applied with ship-lapped joints, effectively waterproofed with sealant tape. Although all of the structures are clad in weathered wood, the overall effect is far from woodsy. Prominent strips of bright metal and black sealant at the corners outline the vigorous building shapes.

The Usdan camp is open to children from 8 to 18 years old, who are contacted through a network of community organizations. Campers are accepted not on the basis of their accomplishment, or their ability to pay the modest tuition (which may be waived), but on the basis of their *interest*. If they are ready to follow a rigorous daily schedule calling for two hours of intensive practice in a "major" art, plus an hour in a "minor" field, Usdan Center is ready for them.

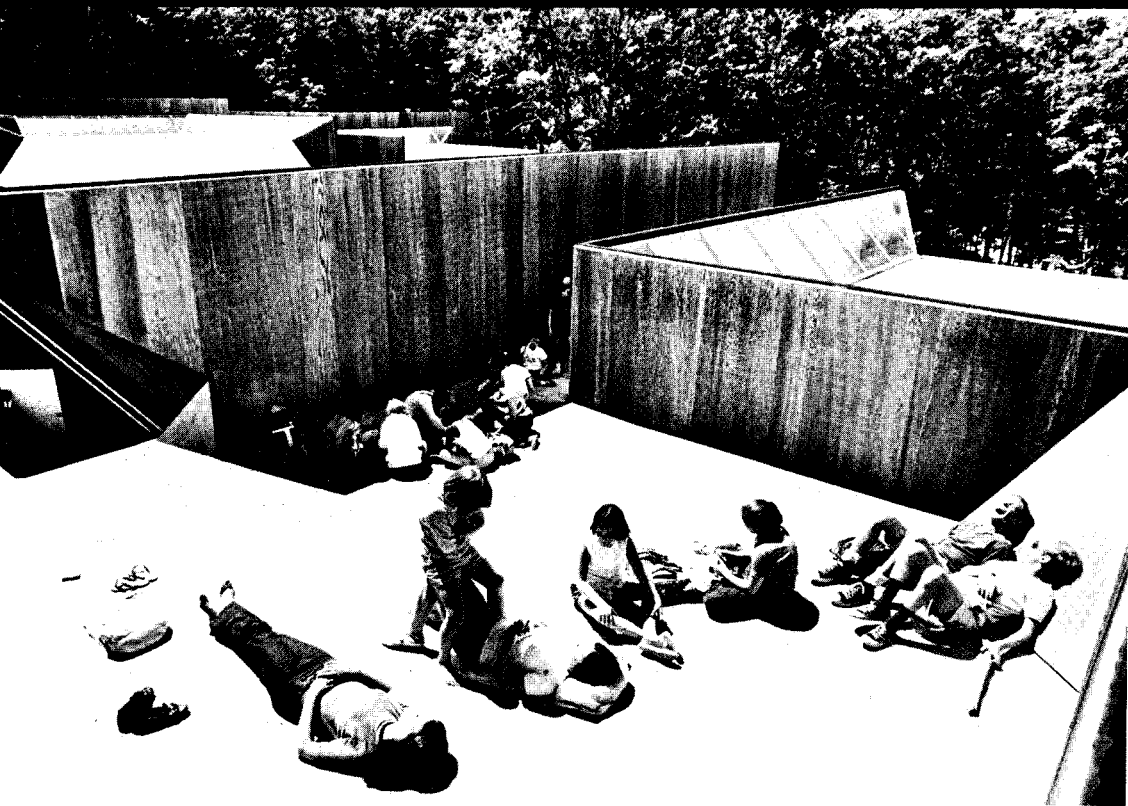
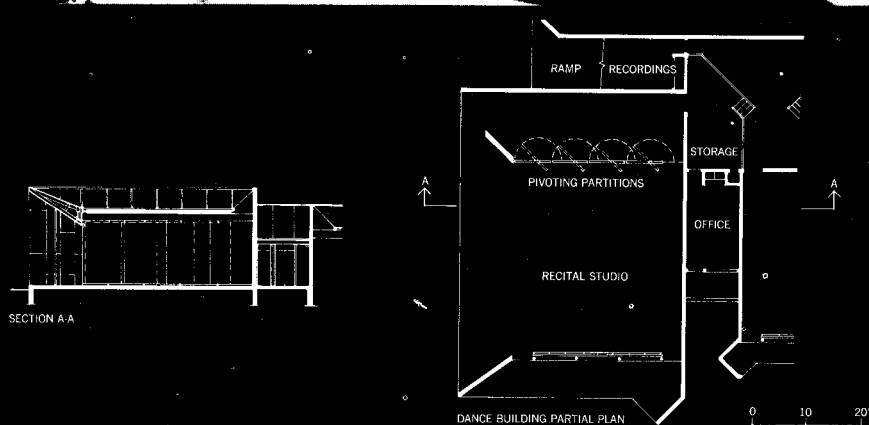


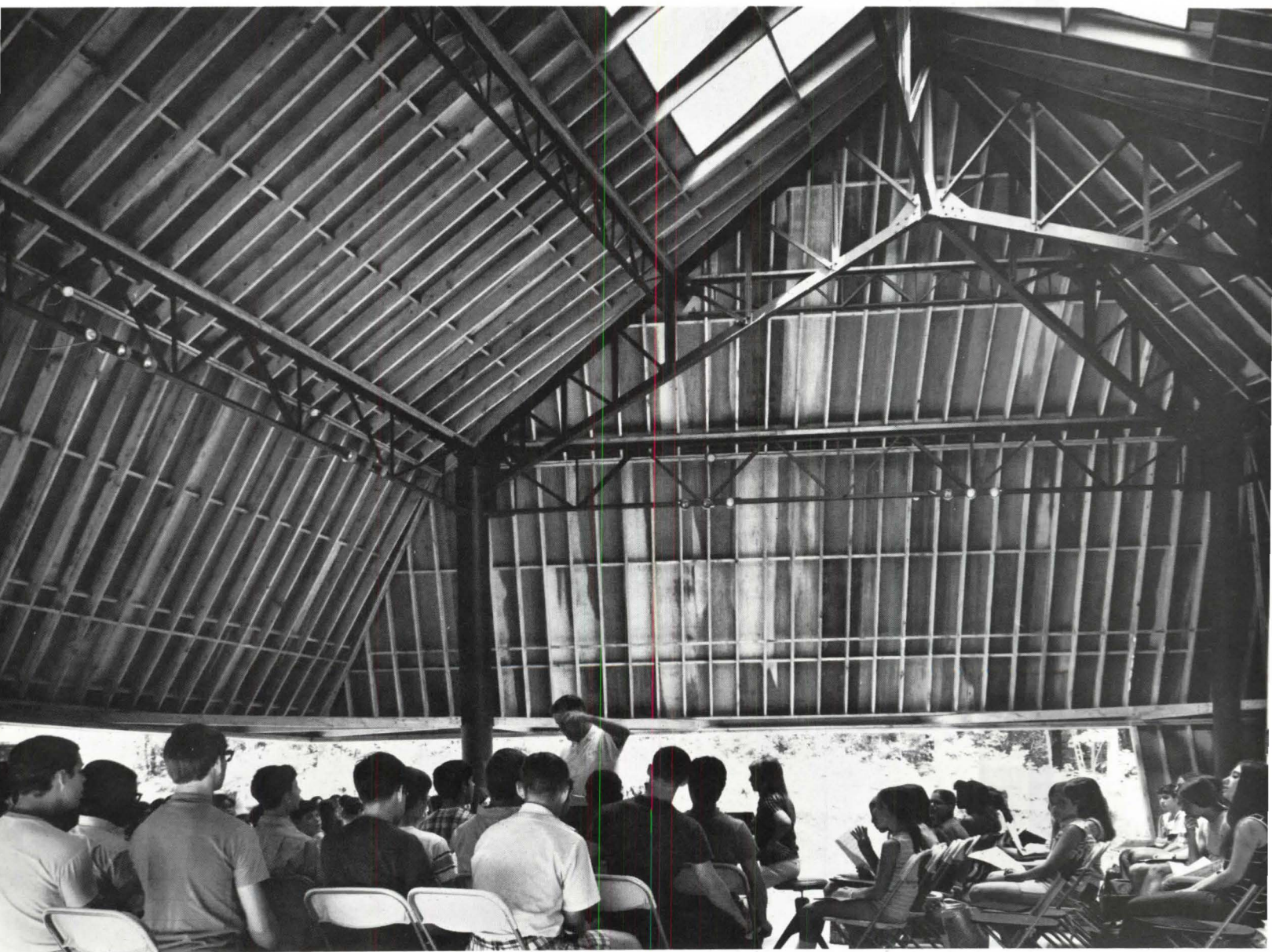
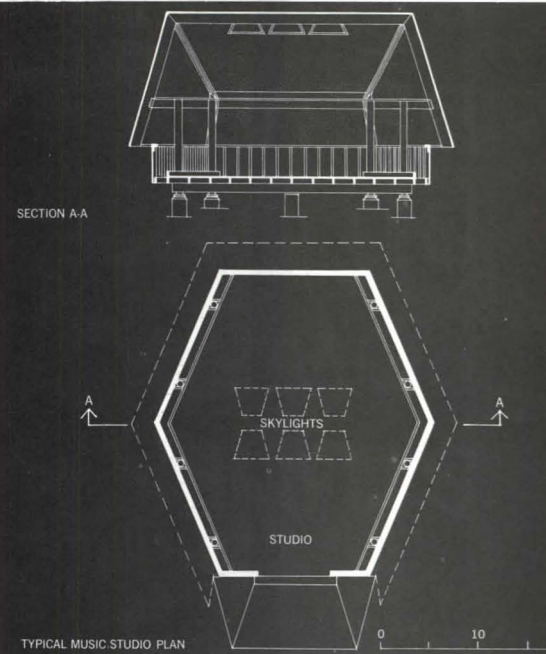
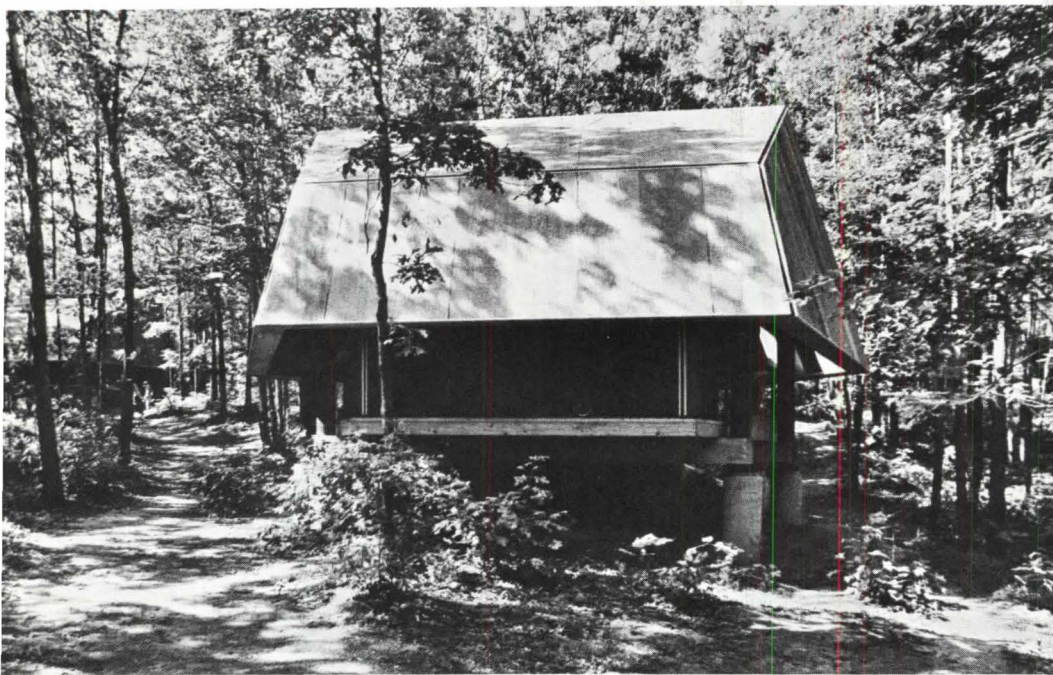
A dance studio building (left) illustrates Conklin & Rossant's approach to the design of all structures at the Usdan camp. Functional demands—in this case for acoustical separation and skylight strips along the walls—are the basis for a vigorous composition of plywood planes. Aluminum extrusions protecting the plywood edges and shiny black sealant waterproofing the corners stand out sharply against the backdrop of oak woods. Structures for each of the arts have been clustered or dispersed on the 240-acre site (plan, right) depending on their need for acoustical isolation. Only the swimming area and the dance department (aerial photo, right) have been completed. The theater arts area and an amphitheater for professional performances (which now take place in a prefabricated shed) have not yet been constructed. Other portions of the camp, in various stages of development, are shown on the following pages.

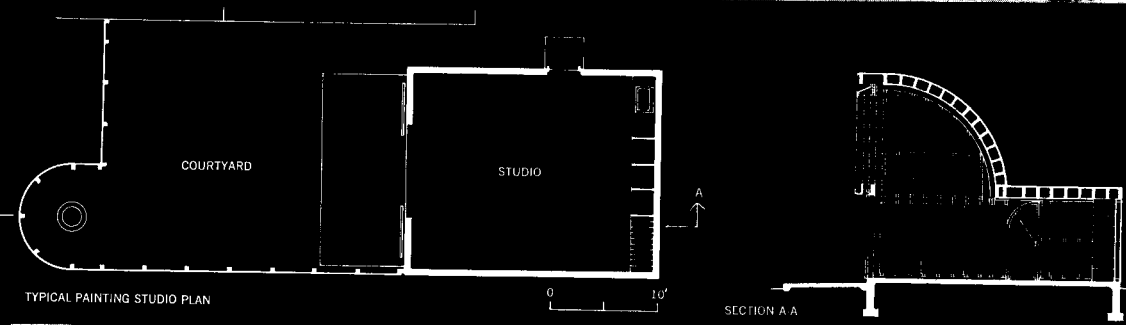
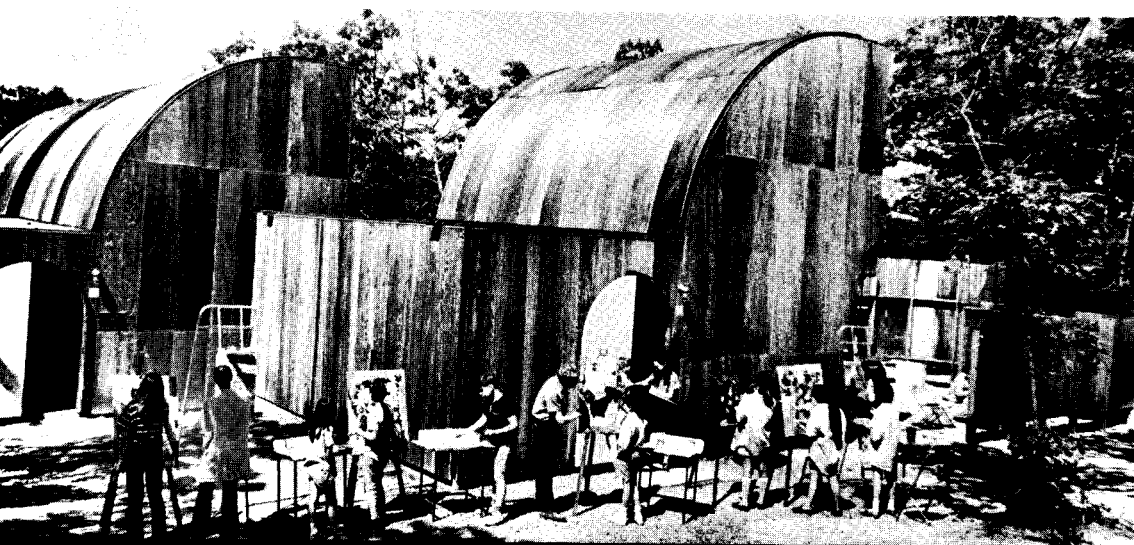


The four dance studios in each building (left) are separated by storage rooms and projecting walls, which keep piano or phonograph accompaniment in one studio from disturbing classes in the next one. Strip skylights illuminate the white-painted back walls of each studio, so that dancers are never in the sun, but silhouetted against a light background. Low eaves and solid fences around the outside of the studios protect perspiring children from wind without closing them in visually. Studio floors are designed to professional standards, with resilient wood framing, soft-cored plywood, and several coats of urethane enamel. One studio (top photo) has a turned-up roof on one side and movable flats inside, so that it can serve as a mock stage for an audience seated on the natural bank facing it. Steep ramps, coated with nonskid enamel, lead up to a roof-deck (bottom photo) on top of the four-studio cluster.

Typical music practice sheds (right) are placed 90 ft. apart in a regular pattern. The woods between them, largely undisturbed, muffle sound that leaks out from under the helmet-shaped roofs. Despite these precautions, the camp staff was anxious about acoustical isolation—a chronic problem in other music camps. The results here are, in the words of camp director Andrew McKinley, “absolutely marvelous.” All is well as long as the young musicians stay inside the sheds; a single flute played out in the woods disturbs the whole area. The three large rehearsal sheds—for orchestra (bottom photo), band, and chorus—are located 115 ft. apart, with blank-walled storage rooms on the sides facing the other sheds. Like the smaller sheds, they have wood-framed roofs supported on cylindrical steel columns, with plastic skylights inserted at the peak.







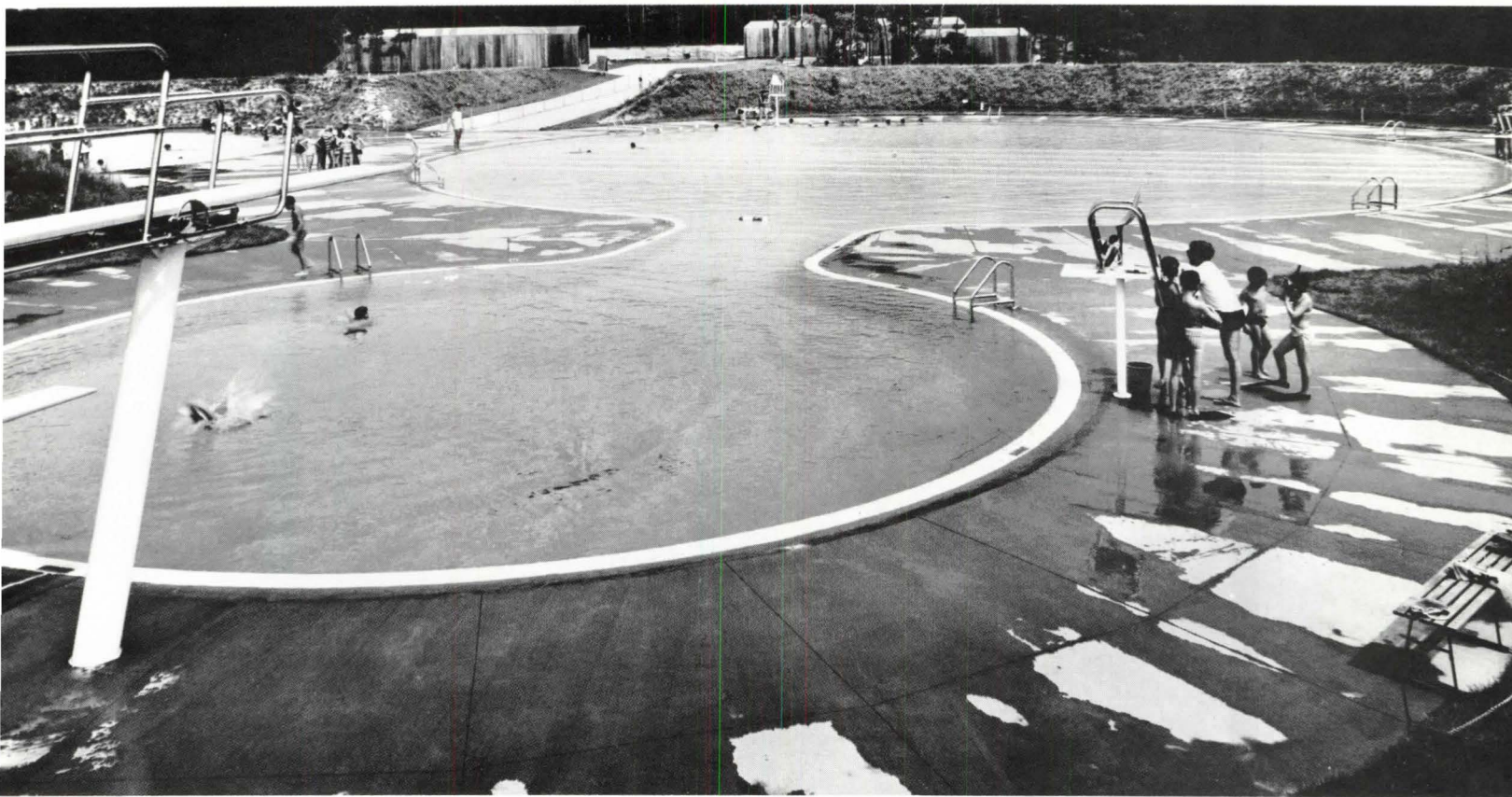
The visual arts area (left) is strongly identified by its curved studio roofs, which are made of double layers of $\frac{3}{8}$ -in. plywood bent over wood frames. The frankly playful curved shapes are repeated in the tongue-in-cheek, half-arched doors. The studios are clustered around a central open space that will eventually be dominated by a cylindrical art gallery. The 19-ft.-tall north wall of each studio (bottom photo) opens out to an outdoor work space roughly the size of the indoor studio, enclosed by tall fences that double as display boards. Since visual art is a "minor" field for the campers, who "major" in one of the performing arts, this cluster will grow as other facilities expand toward an ultimate capacity of about 3,000.

The three circular pools (right)—for diving, swimming, and learning—are set into a cluster of "volcanoes" formed by reshaping the side of the camp's tallest knoll. The purposes of this earth-shaping were to protect performing areas from the nuisance of pool noise and to get the pools well removed from the shade of the woods, as well as blowing leaves and other debris. The earth banks, planted with vines, extend up above pool level, absorbing pool sounds and deflecting them upward—and also warding off winds that might make this exposed platform uncomfortable. Acoustical control is so effective that pool noise is hardly noticeable, even around the pools themselves.

FACTS AND FIGURES

Suzanne & Nathaniel Usdan Day Camp for the Performing Arts, Huntington, N. Y. Owner: Henry Kaufmann Campgrounds Inc., an agency of the Federation of Jewish Philanthropies. Architects: Conklin & Rossant (Ray Bolton, associate in charge). Engineers: Lev Zetlin & Associates (structural); John J. Baffa (mechanical); Goodfriend-Ostergard Associates (acoustical). General contractor: Reema Construction Co. Building area: 38,269 sq. ft. Cost: \$1,400,000.

PHOTOGRAPHS: Norman McGrath, except page 60 (top), Sam Vandivert, and aerials, Skyviews.



ARCHITECTURE AND SOCIETY: Selected Essays of Henry Van Brunt. Edited, with an introductory monograph, by William A. Coles. Published by the Harvard University Press, Cambridge, Mass. 562 pp. 7¼ by 10½ ins. Illustrated. \$15.00.

REVIEWED BY DONALD HOFFMAN

The late Willard Connely, in his biography of Louis Sullivan, noted that the architect Henry Van Brunt "with his limp moustache and pince-nez looked like a seedy English nobleman." William A. Coles, in a long introduction to his selection of Van Brunt's essays, dismisses Sullivan by asserting his work in general never commanded wide and enduring public enthusiasm: "Like most Romantic Secessionist ventures, it has quickly dated once its novelty has worn off."

Van Brunt and Sullivan, it is clear, both were more important than their respective critics have allowed. The essays of Van Brunt, to Coles, are intellectually coherent; they offer a unique and central perspective on American architecture; and they are capable of restoring us to the full context of later 19th-century thinking about art.

Those are heady claims. Coles, for all his scholarly apparatus, significantly does not compare the essays of Van Brunt with the writings of Montgomery Schuyler, John Root, or Louis Sullivan—which are more incisive, more intellectually coherent, and, alas, more progressive.

There are really two Van Brunts. The reader can take his pick, with the frustrating experience of seeing one set of ideas contradicted in the next essay, or on the next page. Coles chooses Van Brunt the conservative.

Coles begins to reveal his own point of view when he analyzes Viollet-le-Duc's impact on Van Brunt's thought. (The reader should be aware that Coles co-edited the book *American Architecture: A Battle of Styles* with Henry Hope Reed Jr., who refers to modern architecture as "Picturesque Secessionism," predicts its demise, and urges a return to "taste.") Coles finally makes his stance evident by declaring the Court of Honor at the World's Columbian Exposition

of 1893 "a natural step in the reform and educated growth of American architecture. . . . Henceforth would be built the great public buildings, libraries, universities, museums . . . banks, stores, and exchanges which suited not only the nation's needs but its lofty aspirations. . . . Van Brunt helps us to understand why we can call the period launched by the Chicago Fair the American Renaissance."

Henry Van Brunt was born in Boston in 1832. He attended the Boston Latin School and was graduated from Harvard in 1854. He spent a year with Richard Morris Hunt in New York, was an early officer of the American Institute of Architects, and published his first essay in 1860. After serving in the Civil War, he joined William R. Ware in the prominent partnership of Ware & Van Brunt, which lasted until 1881, when Ware left to set up the architectural program at Columbia University. Frank M. Howe continued the partnership with Van Brunt; from 1887 until Van Brunt's death in 1903, Van Brunt & Howe was the dominant firm in Kansas City, Mo., where the partners had moved to expedite a large number of commissions from the Union Pacific.

Architecture and Society is profusely illustrated: the plates are eccentrically numbered, but there are about 240. Most of them nicely illustrate what Van Brunt discusses in the essays. Some 80 of them are of the work of Van Brunt's own firm.

Who did the designing in the firm is not discussed by Coles, who rather casually appends a building list to footnote 45 to the first section of the introduction. The most impressive buildings are the handsomely massed First Church of Boston, Unitarian, which burned only last March; the picturesque Union Station at Worcester, Mass.; Memorial Hall at Harvard, its clock tower now truncated by fire and its future evidently dim; the highly articulated St. Stephen's Church in Lynn, Mass., and the "free Romanesque" store for Bulene, Moore & Emery in Kansas City, lately abandoned.

The body of this very well-produced book reprints 22 of Van Brunt's 41 essays, reviews, and speeches. Van Brunt provides a literate index to the changing winds of late 19th-century American architectural thought. His principal concern

lay in urging architects to become a "true exponent" of American civilization, thus qualifying it to enter the ranks of the notable styles of the past.

In March 1886, he wrote that the Richardsonian Romanesque was not developing "that elasticity essential to modern requirements"; in November 1886, after Richardson had died, he termed Richardson's work "so elastic to practical use." After John Root's death in January 1891, Van Brunt wrote a warm appraisal, typically clouded by an irrelevant application of classical terms to such a skyscraper as the Masonic Temple ("a perpendicular tyranny of pilasters, resting upon an inadequate open stylobate"). This was only two years after Van Brunt's excellent essay on "Architecture in the West," in which he recognized not only the imperatives of the modern high office but the emergence of the Chicago school.

His papers on the World's Columbian Exposition noted—as did Schuyler, more forcefully—that the Fair was an "unsubstantial pageant," and asserted that American architecture should be judged by the structures in and near our larger cities; then he contended that the "Roman classic forms" of the Court of Honor would "present to the profession here an object-lesson . . . of the practical value of architectural scholarship and of strict subordination to the formulas. . . ."

Such writing may well mean that Van Brunt's greatest contribution lay in his translation of the first ten of Viollet-le-Duc's celebrated *Discourses*. His was an earlier and better translation than Benjamin Bucknall's. What Van Brunt translated as "an arch of triumph, a purely monumental conception erected by Tiberius Claudius, son of Drusus, to celebrate the introduction of water by the Claudian Aqueduct into Rome," Bucknall translated as "the Great Gate that serves for the issue of the Claudian water" (which sounds, a contemporary archaeologist has noted, like a giant *pissoir*).

It was Viollet-le-Duc who, even more than Ruskin or Pugin, furnished the theoretical basis for modern architecture. Sullivan and Root knew his words, and when the young Frank Lloyd Wright began visiting the Madison Public Library, it was Van Brunt's translation of the *Discourses* that he found there.

Mr. Hoffman is the art critic of the Kansas City Star and author of *The Meanings of Architecture: Buildings and Writings of John Wellborn Root*.

THE ARCHITECTURE OF THE WELL-TEMPERED ENVIRONMENT. By Reyner Banham, under a grant from the Graham Foundation of Chicago. Published by The University of Chicago Press. 295 pp. Illustrated. \$15.00.

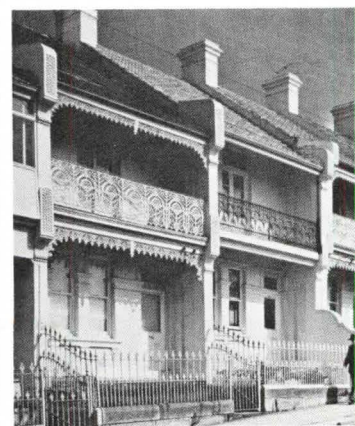
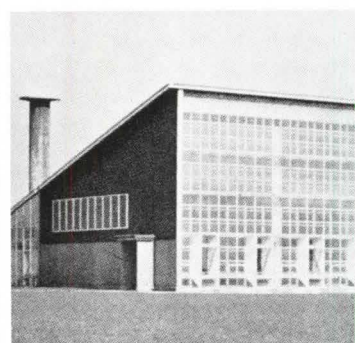
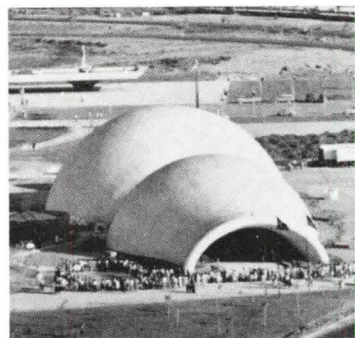
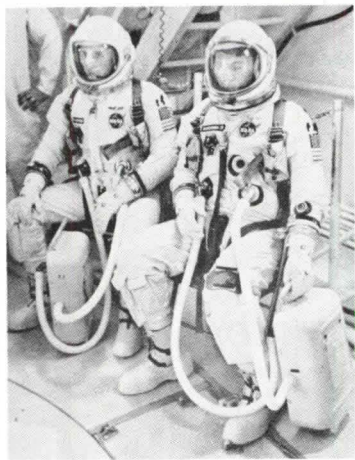
REVIEWED BY HENRY WRIGHT

In spite of many shortcomings, this is an important, thought-provoking book. Reyner Banham is to be congratulated on the selection of his reference-frame, even if some of the fill-in is confused, some of it missing, and some of it erroneous. His basic point is that architectural history and architectural criticism have been weakened by a lack of interest in environmental controls. Referring to the historians' treatment of Wright's Larkin Building—which anticipated the ventilating shafts in Kahn's Richards Laboratories—Banham says:

"So shallow an interest in so profound a building was . . . inevitable. . . . The art of writing and expounding the history of architecture has been allowed—by default and academic inertia—to become narrowed to a point where almost its only interest outside the derivation of styles is haggling over primacy in the field of structures. Of these two alternatives, the study of stylistic derivations now predominates to such an extent that the great bulk of so-called historical research is little more than medieval disputation on the number of influences that can balance on the point of a pinnacle."

Which leaves out, he says, "a vast range of historical topics extremely relevant to the development of architecture. . . . Some are external—patronage, legislation, professional organization, etc.; others are internal—changes in use, changes in users' expectations, changes in methods of servicing users' needs. Of these last the mechanical environmental controls are the most obviously and spectacularly important . . . yet they are the least studied."

When demonstrating the gains to be had by correcting this "most spectacular" deficiency Banham is at his best, especially in dealing with the early works



Tempering the environment (from top): the ultimate individual environment of the space suit; non-building in Victor Lundy's portable inflatable exhibit building for the Atomic Energy Commission; solar heating wall at St. George's School in Wallelsy, England; and solar screening from balconies in terrace housing, Sydney, Australia.

of Frank Lloyd Wright. He even succeeds in quoting the master himself, very much to the point:

"Another modern opportunity is afforded by our effective system of hot-water heating. By this means the forms of buildings may be completely articulated, with light and air on several sides. By keeping the ceilings low the walls may be opened with a series of windows to the outer air, the flowers and the trees, the prospects, and one may live as comfortably as formerly, less shut in . . . it is also possible to spread the buildings, which once in our climate extremes were a compact box cut into compartments, into a more organic expression, making a house in a garden or the country the delightful thing in relation to either or both, that imagination would have it."

Of this quotation (from the English version of the first Wasmuth volume) Banham says: "Few writings of any architect relate mechanical equipment [to] plan and section so directly as does this compact and holistic vision of Wright's. Few statements of method can be so directly and revealingly tested against actual buildings. Although the statement begins with hot-water heating it proceeds directly to the improvement of aspect and ventilation made possible by articulating the house into more separate parts." He then goes on to show in interesting detail how these and other environmental control principles were successfully applied to the Baker house in Wilmette, Illinois (1908), and other Wright houses of the period.

In view of the above, it is little short of amazing that so perceptive a scholar and observer should have missed the superb integration of daylighting and electric lighting in Wright's Unity Temple (1905) which would be outstanding if done today. This omission is made even more evident by the rather lame examples of architect-designed lighting Banham does include. Similarly, he cites—and even illustrates—the use of a multiplicity of bare light bulbs (suspended on cords) in the Great Hall of Stokesay Court, by Thomas Harris, in 1889, while quite unaccountably failing to mention the more integral and designful (and better known) use of the same device at the same date by Adler and Sullivan in their Auditorium Theater.

This dichotomy of things included, things left out, persists throughout the book. Indeed, it is almost a virtue that so many couplets are suggested by the text. Here are several more:

- There is much interesting material on early ventilating systems but nothing at all on the ubiquitous overhead revolving fan which did so much to make hot weather bearable for our immediate forebears. And thus no mention of Brennan's New Orleans restaurant, where three or four rows of such fans are powered by a system of pulley-shafts and belting like the machinery in early factories.

- Lundy's portable theater for the Atomic Energy Commission is (very properly) pointed out as a prime example of "non building," but the widespread use and popularity of another equipment package—the mobile home—is completely ignored.

- St. George's (solar heated) school in Wallelsy, England, is described and illustrated, but not Bridgers and Paxton's suburban office building in Albuquerque, New Mexico, and thus the opportunity is missed to point out that the heat-storage capacity provided by the massive construction of the school is, in the second instance, more elegantly supplied by a circulating pump and buried water tank.

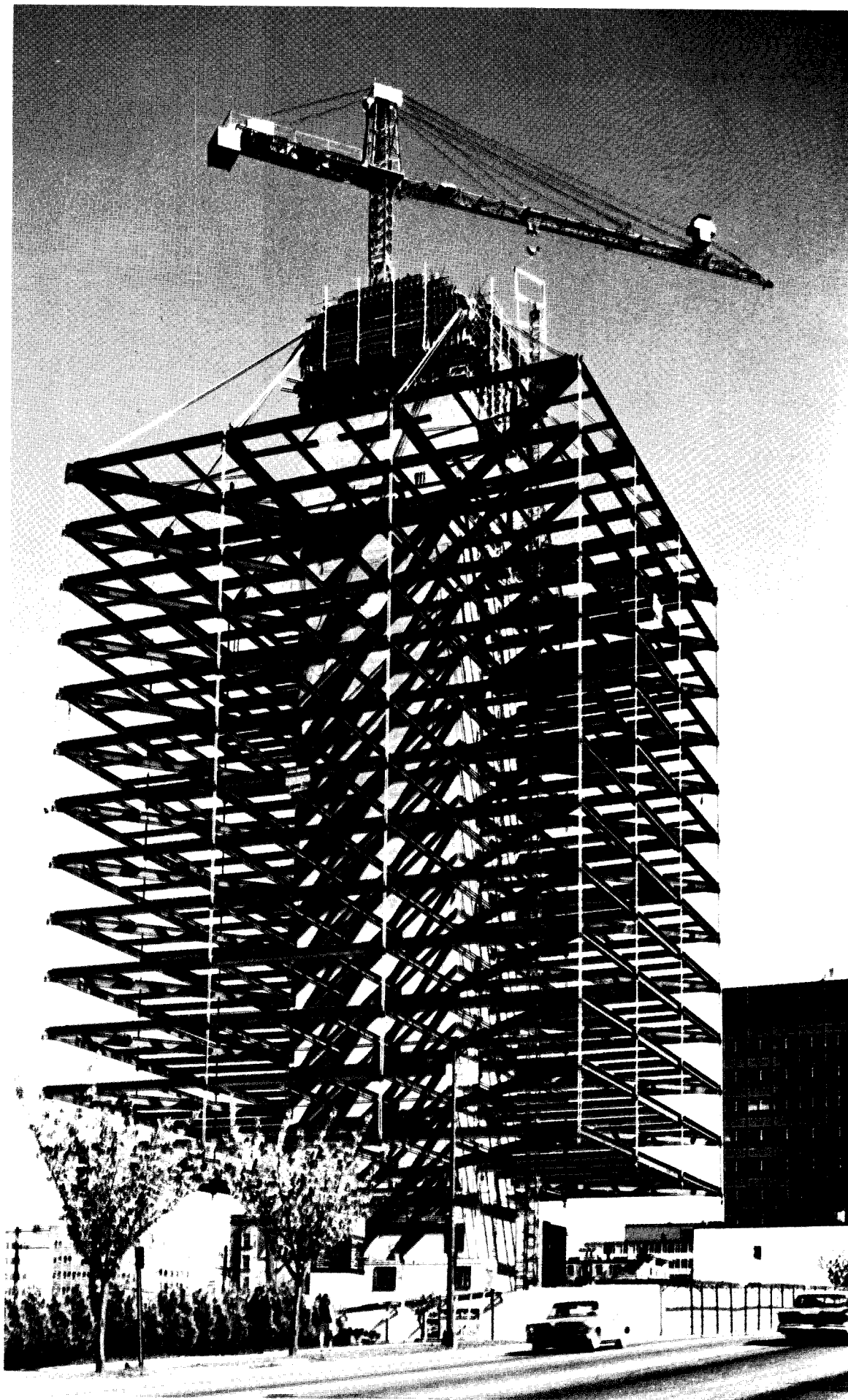
- Rather arbitrarily, 19th-century terrace housing in Sydney is chosen to illustrate the use of balconies to exclude unwanted summer sun, with the admission that this works, unfortunately, on only one side of the street (the south side, in Australia). Why not also point to 20th-century houses in Tehran, where the "onesidedness" problem has been solved (and a better spacing of house-rows attained) by locating south-facing houses at the back of the lots, with a walled garden in the front, and the north-facing houses at the front of the lot, with garden behind?

- Much space is devoted to Le Corbusier's "neutralizing wall" (two layers of glass with a heated or cooled space between), but there is no mention of the way (at almost the same time) almost the same effect was achieved in the East River Savings Bank in New York City by drawing indoor air into the top of a tall space between double windows and exhausting it through radi-

(continued on page 100)

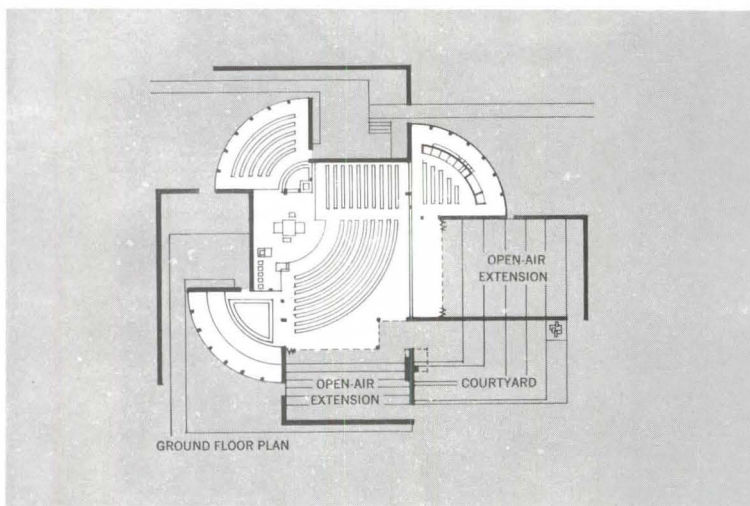
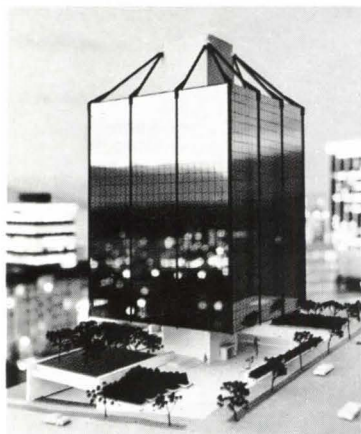
Mr. Wright is a former Managing Editor of the Forum, and is a frequent contributor to this magazine. He is now Regents' Distinguished Professor, College of Architecture and Design, Kansas State University.

FOCUS



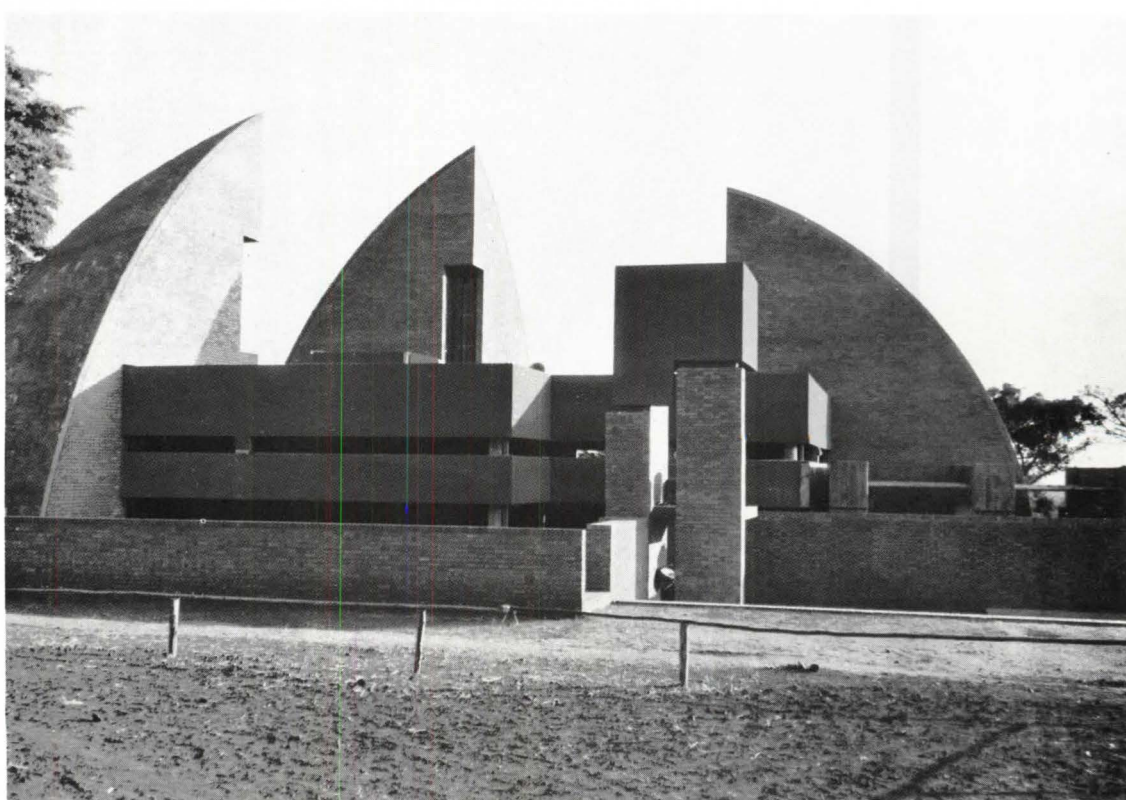
OFFICE IN SUSPENSION

A unique suspension system resistant to earthquakes was worked out by Canadian Architects Rhone & Iredale for the offices of the Westcoast Transmission Co. Ltd., a natural gas pipeline company in Vancouver, British Columbia. A single, post-stressed square concrete core supports the structure; it contains all mechanical and electrical equipment, and stairs and elevators. The core was constructed by a slipform technique in under three weeks. Across the top of the core, and clamped to its edges, hang 12 steel cables. The 12-story office block is suspended from these cables; steel framing members of each floor are bolted to the core, and attached at their outer ends to the cables by friction clamps. The cables support a bronze-tinted, glare-reducing glass curtain wall at 36-ft. intervals. The 138,000-sq.-ft. office block hangs 36 ft. above a landscaped plaza, under which is a three-level parking garage.



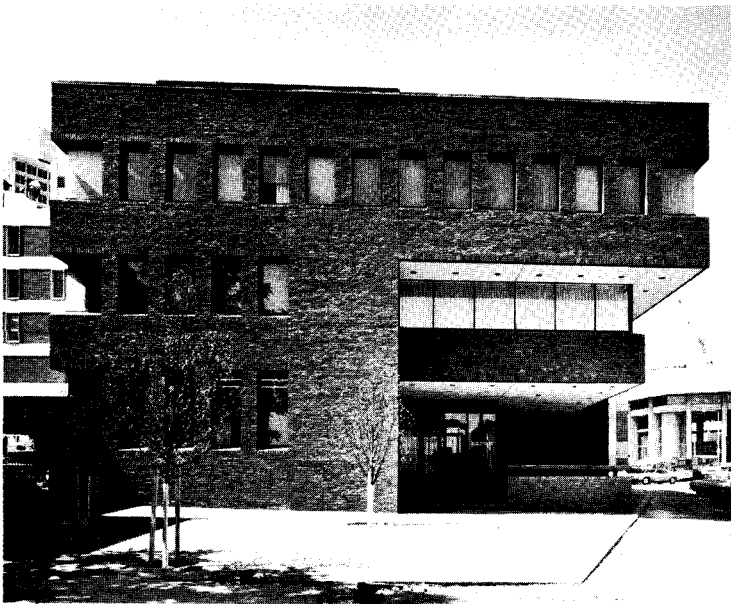
AFRICAN SHRINE

The pilgrimage center and shrine designed by Swiss Architect Justus Dahinden in Mityana, Uganda, takes its motif from ancient forms and symbols of Bantu belief. Three cupola segments echo Bantu mask shapes; they also mirror the shape of grass huts typical of the area. The cupola segments face inward towards the main altar and nave; each contains private worship space and chapels and one, the baptismal font. Beyond the nave are walls which open out to open-air extensions used as classrooms. Instead of a belltower, the church has a drumtower. The structure is of brick, with wood ceilings. The cupola segments are protected on the exterior by a thin layer of cement of an earth color. The center was erected by the Association for the Uganda Martyrs' Shrines in remembrance of the first three African saints.



SIMPLE FORM FOR SERVICE

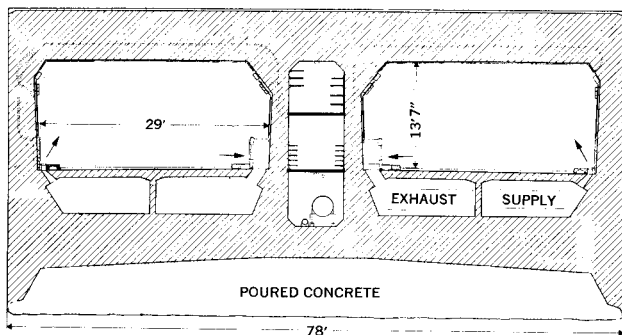
Occupying a triangular corner site in downtown Boston, Mass., is the Jewish Family and Children's Service building. Marvin E. Goody, John M. Clancy & Associates designed the three-story structure as a strong, simple form to blend in with the larger buildings of Boston's Government Center surrounding it. The main focus of the building is its entrance which is set back under the cantilevered upper floors. The entire structure is sheathed in brick, which is also used for the paving of the sidewalk. Inside are private caseworker's rooms and a meeting room.



TOWER FOR KNIGHTS

New Haven, renowned for its efforts in urban renewal, now boasts the recently completed world headquarters for the Knights of Columbus among its newest additions to the redeveloping downtown. The 360-ft.-high, 26-story building dominates entry to the city from the major

highway. It is constructed of four cylindrical corner towers, slip-formed of concrete and then faced with dark brick, between which girders are slung supporting steel-framed floors. Surrounding the \$17-million structure is a large civic plaza. Architects were Kevin Roche, John Dinkeloo & Associates.



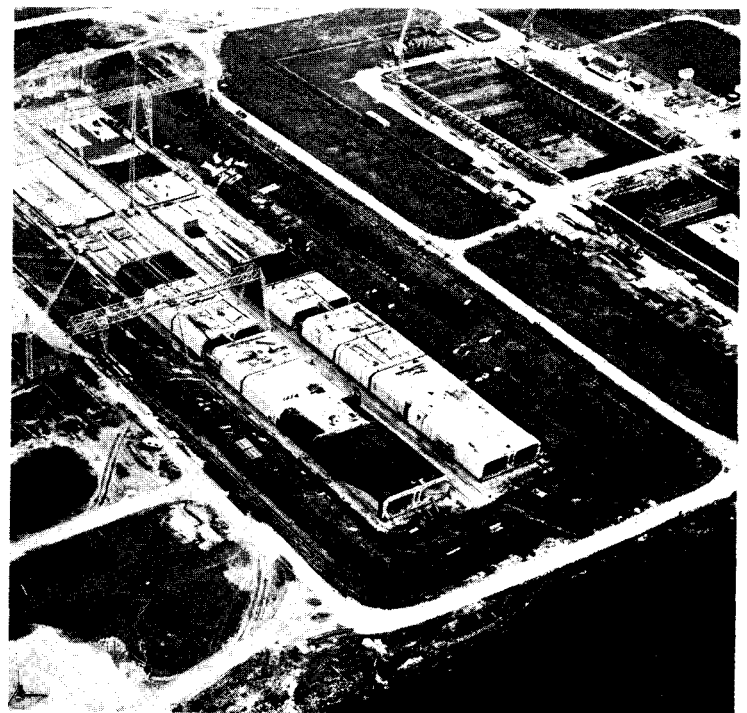
TUNNEL SECTION UNDER WATER

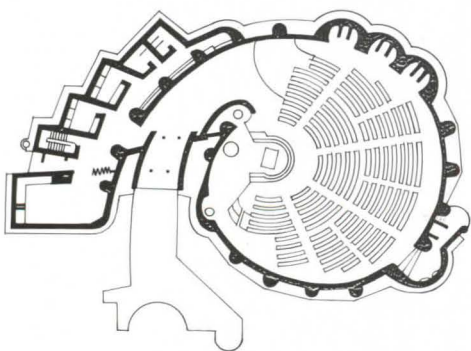
DUTCH FEAT

The 600-million IJ tunnel in Amsterdam, the Netherlands, is an engineering feat. The 1,040-meter, double-tube tunnel had to be submerged in a very poor subsoil under the IJ River; there was, also, a high level of ground water in the surrounding area. Each section of the tunnel (prefabricated nearby, right) was sunk onto pile foundations, as the excavated area was drained

by a "return well" system of dewatering or pumping up water from the site and then pumping it back further away.

Between the two tubes are three ducts for lines and cables transmitting electricity and pipes conducting water from one part of the city to the other. The tunnel is encased in waterproofing and steel shells. Enamelled steel sheets cover inside walls; sunscreens protect entrances.

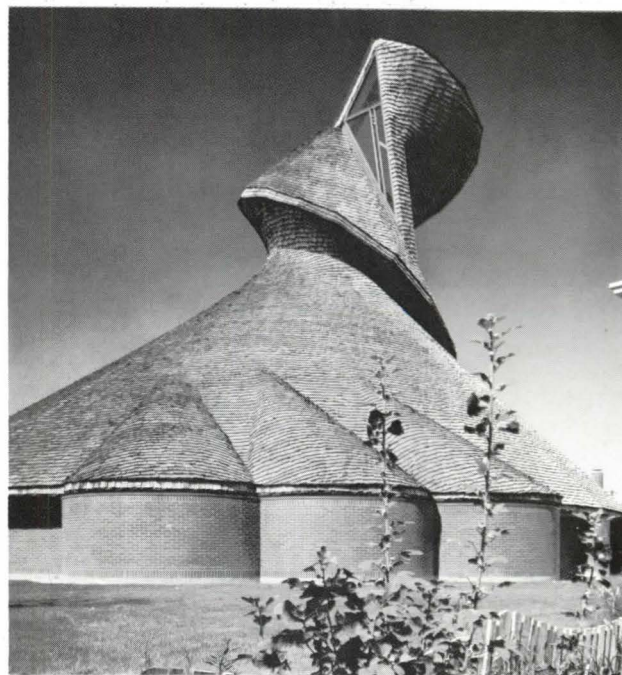




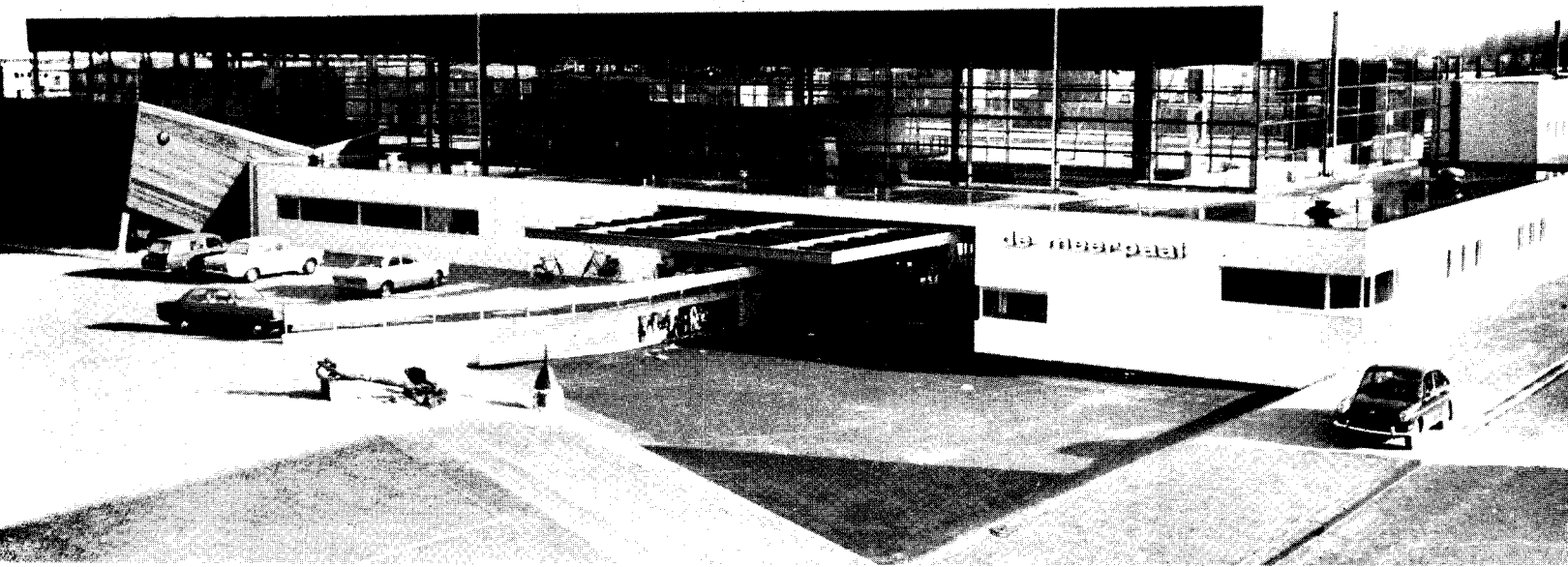
SHINGLED SPIRAL

The spiraling structure above is the Precious Blood Roman Catholic Church in St. Boniface, Winnipeg, Manitoba. Canadian Architect Etienne Gaboury (with Associate Architect Denis L. Lusier) focused on the tension created by his asymmetrical design to draw movement around to the geometrical center of the spiral, which is, also, the structural center of the building—and the place where the altar stands. The pews partially encircle the altar. The floors and wall are of brick.

The exterior roof is covered with red cedar shingles and hand-split shakes which weather to a grey tone. The spiral is rippled (right) to accentuate the three confessional areas inside. Over the main entrance (above) is a stained glass window also designed by the architects.



PHOTOGRAPHS: Page 64, Franz Lindrer; page 65 (left), Selwyn Pullan; (top), courtesy Bauen + Wohnen; page 66 (left), Hillel Berger; (top right), Robert Perron; (bottom right), National Foto Persbureau.



INDOOR AGORA

Dronten is a frontier town in the Netherlands — a community of about 10,000 on the polders of East Flevoland, which was reclaimed from the Zuider Zee only 12 years ago. Until recently, Dronten's only public gathering place was an open market square, and piazza weather is rare there.

Architect Frank van Klingeren, commissioned to design a \$1-million community center, saw the possibility of making it an all-weather annex to the square—an indoor "agora" with all the diverse functions of the ancient Greek model plus a few distinctly modern ones (such as community TV-watching). Above all, he saw the "agora" as a place for people "to do nothing but watch and wait and fool around."

Van Klingeren did not want to erect barriers between activities, which would fix their locations and discourage "watching," although he recognized that there would be conflict, acoustically. It is sometimes necessary to ask people outside the theater (which has no ceiling of its own) to quiet down; but then again, it may not be, since most of them may be watching the same performance by closed-circuit TV on a 370-sq.-ft. screen.

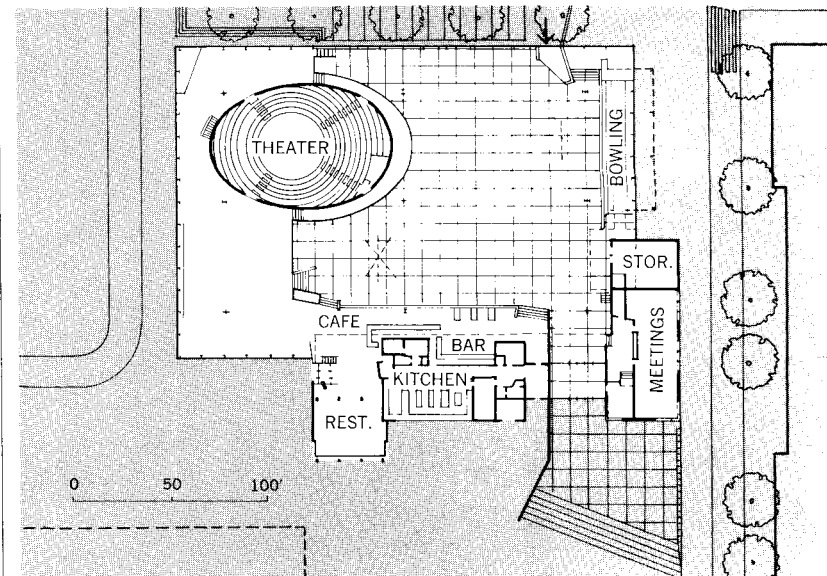
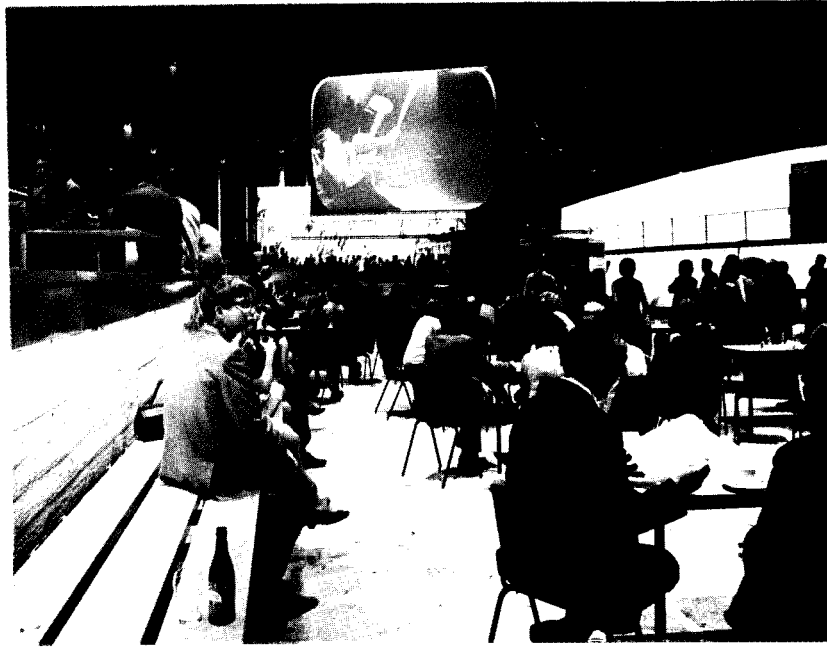
In its architectural form, the agora is meant to look like a covered extension of the town square; hence the glass-walled, Miesian enclosure. But van Klingeren also wanted to emphasize that a building serving such variable functions could never be truly complete; hence the diverse blocks that intersect the enclosure at its base.

Inside, these little appendages produce a series of alcoves and terraces surrounding the vast main volume. The one fixed division in this space is the wall around the oval theater, which will seat 350 to 700 spectators, depending on which of six possible stage arrangements is in use. Beneath the terrace adjoining the theater are dressing rooms for both actors and athletes. A balcony at the opposite end of the hall may be used for exhibitions or dancing. In this vast public room, opportunities for watching are almost limitless.

FACTS AND FIGURES

"Agora," Dronten, the Netherlands. Architect: Frank van Klingeren. General contractor: Fokkens. Cost: \$950,000 with furnishings and fees.

PHOTOGRAPHS: top left, "Bell"; bottom left and top right, Jan Versnel; right, Florian J. Lem.



The main entrance to Dronten's "agora" (top left) leads through a low wing, then into the 230-ft.-long main hall (below left), which is separated from the market square only by walls of clear glass. The cafe terrace in the foreground overlooks the sports area; in the background are a large mural (concealing air-conditioning equipment) and the 16- by 23-ft. movie-television screen. The balcony surrounding the oval theater provides another vantage point for viewing the games. At night (top right) the scene is dominated by cafe life and movies. On indoor market days (bottom right), housewives gather on the cafe terrace; stalls are covered in the traditional way, although radiant heating is installed in the wood plank ceiling.

BRIDGING THE GAP FROM RHETORIC TO REALITY

THE NEW YORK STATE URBAN DEVELOPMENT CORPORATION

BY SAMUEL KAPLAN

"Sure we can rebuild America," said the renewal administrator to the concerned and questioning representative of the League of Women Voters at one of those forums on the city-housing-jobs crisis. "Just give us the right of eminent domain, the power to ignore local zoning and unlimited financing."

Like every urban state, New York has been fighting a losing battle against decay. Its slums are spreading faster than its rate of new construction. Its old commercial cores can no longer compete with suburban shopping centers and are corroding. Its industry is fleeing to the countryside, leaving a potential work force in the cities on unemployment and welfare. It is a mess, as anyone can testify who has toured New York City's South Bronx, Harlem, Brownsville and Bedford Stuyvesant, Buffalo's downtown, Albany's backstreets and the mill towns of the Mohawk Valley.

Urban renewal at best has been an inadequate tool, trying to drain the floor of blight with an eyedropper, and at worst a quagmire, replacing neighborhoods with vacant lots and promises. According to a recent report, New York has 2,741 acres under urban renewal, of which 198 acres are completed projects, 280 acres are in advanced project stages, while the remaining 2,263 acres are in limbo, lacking feasible plans and viable sponsors. The state's renewal effort becomes even more frustrating when measured against the estimated 100,000 acres in substandard condition in and around the cities of New York.

Since it takes on the average 13 years to complete an urban renewal project in New York

City and eight years upstate, it would take New York at its present pace about 350 years to eliminate its slums, assuming that their present festering is contained and that new housing starts keep up with demands of the state's burgeoning population. (Of course, both assumptions are optimistic fantasies, given the state of the cities and the economy today, and given the utter lack of a commitment to the housing problem by the federal government.)

New York's renewal experience is not unique. Every urban state is suffering. But the magnitude of New York's problem is such that its failure is more glaring, much to the consternation of Governor Rockefeller, who has prided himself in his administration's herculean rebuilding efforts. Establishing public benefit corporations to avoid bureaucratic pitfalls, and unleashing billions in bonds, the state of New York in the last ten years has built a vast higher education plant, rebuilt its mental health facilities and hospitals, extended its highways and is now tackling mass transportation and water pollution, following a 1967 public vote of confidence in the passage of a multi-billion dollar bond package.

With these victories behind and bolstering him, and the chaos of the cities daily front page news, the governor waded into the urban renewal morass two years ago. Ignoring bureaucratic and political pressures to fatten up the lethargic State Division of Housing and Community Renewal, the governor again elected to seek the quasi-government form of the public benefit corporation to get the job done.

He also sought out Edward J. Logue, who has perhaps the best reputation in the nation as an urban administrator dedicated to getting a job done. Logue was then a part-time professor of public administration in Boston and a constant renewal consultant and critic, following an overwhelming rejection by voters in

Mr. Kaplan, a new member of our Board of Contributors, is Director of Development of the New York City Educational Construction Fund and Lecturer at the School of Architecture of the City University of New York.

his 1967 bid for the Boston mayoralty. Logue built his national reputation while rebuilding New Haven and Boston; and he had previously toyed with the challenge of New York City when Mayor Lindsay offered him the job of Development Administrator in 1966—after Logue had given Lindsay a report outlining the position and what had to be done. When Lindsay failed to deliver the reforms Logue considered necessary (principally the subjection of the City Planning Commission to a new Development Administration), Logue declined the job. He had been quite excited by the prospect of tackling New York City. But Logue felt he needed some strong teeth to bite into the Big Apple.

Working as consultant to Governor Rockefeller, he translated the reforms he considered necessary into an outline of a new state corporation that embodied the fantasies of every renewal administrator in the U.S. The resulting legislative proposal called for a development corporation with vast powers which would allow it to condemn property, to plan new structures or even new cities, to build them if no one else would, to own them and lease or manage them, to receive tax exemptions and, if need be, to ignore local zoning and building codes. In addition, Logue recommended that this development corporation be given \$5 million as a starter to cover operating costs, \$35 million in "first instance" appropriations to cover planning and project costs prior to permanent financing, and a bond authorization of \$1 billion! Two subsidiary sister agencies to the corporation were also proposed: a Corporation for Urban Development and Research, which would plan and initiate demonstration projects; and an Urban Development Guarantee Fund, which would get around some state charter problems in financing and would guarantee mortgage loans in project areas.

Reading more like the recom-

mendations of an "urban workshop" than a serious legislative proposal (especially by a Republican administration), the proposal was greeted with gasps. Legislators, lobbyists and journalists in Albany gave it little chance of success, despite the governor's strong support. There was almost no area for compromise in Logue's package: the state administration held firm on the need of the corporation for absolute powers—particularly its option to ignore local zoning codes, an issue that rallied opponents from Montauk to Niagara Falls. Zoning is the bed rock on which home rule stands, and in New York, as in other states, home rule stands next to God. The package languished, collecting derisive remarks and dust.

On April 6, 1968, the Rev. Martin Luther King was assassinated in Memphis. Governor Rockefeller sent a special message to the Legislature two days later, urging passage of the urban development package—as a tribute and a memorial to the slain civil rights leader—and then flew to Atlanta to attend the funeral. During the afternoon of April 9, the day of the funeral, the proposal passed the Senate, but in the Assembly conservative upstate Republicans joined liberal New York City Democrats in their concern over home rule to defeat the package 85 to 48. Reacting strongly to the rebuff, after the funeral in Atlanta, the governor started making telephone calls, urging, cajoling and threatening legislators to reconsider the vote. Patronage and pet bills were dangled before Assemblymen in a dazzling display of political power by Rockefeller, and within seven hours 40 votes were turned. The package went back before the Assembly at 11:30 that night and was approved 86 to 45. The governor signed the proposal into law the following day, and the most potent government-created apparatus for tackling the problems of urban development was in business in New York State.

"Sure we can rehouse America," said the housing administrator to the angry representative of a community action committee at one of those housing workshops. "Just give us unlimited use of land writedown, interest and rent subsidies, and remove all restrictions from every housing program."

A year and a half has passed since the UDC became a legal entity and Ed Logue no longer slips into the governor's Manhattan office on West 55th Street off Fifth Avenue, but walks boldly into the corporation's modern offices two blocks south, where its executives share the tenth floor with the Ted Bates advertising agency. Following Logue and filling the offices have been many old friends and associates from the good old New Haven and Boston days, among them Robert M. Litke, New York City regional manager, and John Stainton, Rochester area regional manager. They and others have been attracted no doubt by the excitement that surrounds their 48-year-old boss, the autonomy and potential of the agency and, last but not least, the handsome salaries offered.

Parading less boldly into the offices have been mayors, renewal directors, planning commissioners, developers, real estate operators and a host of consultant planners and architects to get a piece of the action and perhaps find a taker for a parcel or a plan. Most of them have not been disappointed. The UDC staff, which has grown from 6 to 160, have reviewed almost every urban renewal project in the state for possible involvement by the corporation, while launching dozens of studies. But as the studies are bound and circulated, and the minutes of the last meeting typed and reviewed, it has become evident to observers and some staff members that the UDC is having problems bridg-

ing the gap from rhetoric to reality, particularly its promise to provide low- and moderate-income housing—the UDC's most important objective, according to Logue.

Though it can plan, build and manage any form of housing, it cannot finance subsidized housing, other than to provide short-term construction loans. For low-income housing, it must turn to the local housing authorities and work through their channels to the federal government, acting as any other turnkey developer, hat and plans in hand. To achieve moderate-income housing, it must act as a packager-developer on behalf of a local nonprofit sponsor in applying for FHA mortgages, an increasingly difficult road to travel.

Its position is somewhat better in undertaking middle-income housing, where its legislation directs it to work closely with the State Housing Finance Agency, which provides below market rate mortgages and has at its disposal a variety of rent subsidy tools. But the fact remains that though the UDC can be a constant prodder, especially when headed by Logue, it does not have the final review powers for its housing projects. It will perhaps be able to edge its way to the front of the mortgage commitment line, but nevertheless must stand outside the door while an agency that was bypassed when the UDC package was proposed (and whose staff members earn substantially less than UDC personnel in comparable positions) review their plans.

Architects working on housing studies for the UDC confide that they eventually expect a clash between the HFA and the UDC over design and project costs. Logue has always prided himself in being sensitive to design consideration and that somehow, somehow, cost problems can be resolved. On the other hand, the HFA has adhered strictly to cost considerations, with design merely an afterthought. (Co-op City in the Bronx—see Jan./Feb.

'69, page 107—is perhaps the extreme example of the HFA's preoccupation with costs to the exclusion of design.) Architects who have submitted plans to the UDC find themselves caught between the challenge of good design called for by the UDC, and the knowledge—from past experience—of what the HFA will probably do to the drawings later. "The UDC is floating in the air right now. But I am afraid the balloon will burst as soon as HFA costs out the jobs," said one leading architect. "It is an odd situation when we, the architects, have to be constantly reminding the client of cost considerations, but we do."

Furthermore, the UDC does not have any funds for housing subsidies, which have, in these years of rising construction costs and community rejections of public housing, become the only way of squeezing some low- and moderate-income families into new housing and of keeping rents in a reasonable range. Here again the UDC must stand in line for the thimblefull of federal and state subsidies available.

Most constricting, perhaps, is the fact that the UDC also has no land writedown funds of its own, which is the essence of any urban renewal program. This means that the UDC cannot assemble land and, as a renewal agency can, sell or lease it for less than the cost of assemblage, including the purchase price, relocation and demolition, so the buyer or lessee can reduce the cost of development accordingly. Maximum allowable land costs for subsidized housing in cities almost mandates a land writedown. As a result, the UDC will almost always have to work through the local renewal agency in developing inner city sites for subsidized housing.

Though newspapers have labeled the UDC a "super-renewal agency," the lack of a land writedown actually reduces the role of the UDC in cities to that of a developer. But with a bushelful of planning money to seed projects, experienced staff

to process papers for local renewal agencies and to move the projects through the bureaucracy; with the resources to build the projects, own them and manage or lease them; and with the option to ignore local building or zoning codes, the UDC is, in fact, a super-developer.

The immediate result has been that the UDC has become what can best be described as the developer-of-the-last resort. Renewal projects across the state that have been vacant lots for years, collecting garbage and defeating incumbents while awaiting a developer with cash in hand, are now being reviewed by the UDC. "There is no doubt about it," said a staff planner, "we are getting the dogs."

After a year of reviewing and negotiating, the UDC has agreements in principal with 11 cities to proceed on projects totaling \$600 million in construction. The cities are Amsterdam, Binghamton, Buffalo, Ithaca, Newburgh, Ogdensburg, Ossining, Peekskill, Utica, Yonkers and New York City, which apparently has had some second thoughts after denouncing and almost defeating the UDC in the Legislature.

Most of the projects involve housing, with more than 20,000 units planned, 11,000 of them in New York City. The most ambitious of the projects is the development of the 147-acre Welfare Island, in New York City's East River (October issue), where a new community of 5,000 units of housing in a park setting has been designed by architects Philip Johnson and John Burgee. According to the UDC, its income range formula for almost all the housing is 70 per cent middle-income, 20 per cent low-income and 10 per cent elderly, though it is expected that some communities will suggest different breakdowns. Other projects include parking garages in Ithaca and Syracuse, some industrial and commercial facilities in Yonkers and in and around Buffalo, and recreation areas in New York City. The UDC also is

studying and negotiating possible projects in 35 other localities.

The cities could not be more pleased. With a few exceptions, they have been pressed to find developers capable of carrying out the projects. The UDC holds the promise of transforming vacant lots into buildings. However, though not admitting it publicly, the UDC is worried about project feasibility. Its negotiations with the FHA and HFA to pick up the mortgages in all their residential projects is critical, and there are reports that all is not going well. The UDC has expended a good portion of its \$35-million "first instance" appropriation on housing, and the only way it will get that money back is if the HFA and the FHA assume the permanent financing and allow the UDC a takeout. As already noted, the UDC can float notes or bonds for short-term financing, making it an excellent middleman for low-income turnkey housing, but the corporation will quickly "self-destruct" economically if it gets into permanent mortgaging for projects that must be subsidized. The UDC just is not geared up to be another housing finance agency.

To be sure, the UDC can permanently finance any type of structure, including schools, sewage plants, shopping centers, firehouses and factories, but it also will have to be assured that it can lease or sell the facility at a rate to meet its debt service on the cost of development and, hopefully, a little more to cover administrative expenses and the cost of those studies that undoubtedly will wash out. According to the legislation, the UDC must borrow its money in the private market, without pledging the full faith and credit of the state. The projects, therefore, must be designed to be financially self-liquidating. This means that a UDC project will have to be attractive enough for other developers to take over once the financing and red tape are resolved and, hopefully, before it goes into construction.

Though its legislation allows it to, the UDC does not want to go into the construction business and certainly not into property management. This would tie up its capital and weaken its future bond position, while perplexing the local municipalities, which will not be able to collect full or perhaps even partial taxes on the projects since the UDC is tax exempt. The state has agreed to reimburse the localities for tax losses, but the issue of how much and for what would more than likely involve the UDC in a hornet's nest.

In essence, the UDC wants to become a packager-in-the-public-interest. It would like to limit its role to developing plans, arranging financing and then selling the "package" to a developer, whom it will oversee to assure that the project is carried out as agreed and as expeditiously as possible.

"We are in the position, we believe, to initiate sound development projects and take them to the point where the private sector can step in, take over and build and own them," Ed Logue has said. "If we can, in fact, deliver such packages, we will have enough takers to keep us from becoming a construction agency. The indications we have are that private equity and development capital will be available if we perform our catalytic role properly."

The test will come soon enough as the UDC's first plans become working drawings and its negotiations become contracts. The hope is that private developers will be attracted by various tax incentives written into the corporation's legislation, including tax abatement (with the state making up the difference to the local governments) and tax credits for the creation of new jobs. The UDC is also seek-

ing nonprofit sponsors capable of assuming its moderate-income projects.

Despite these problems, it is obvious that the UDC is performing an invaluable service, bailing out a number of floundering local renewal agencies and municipalities, while probably paying off some political debts incurred by the governor to obtain passage of the UDC legislation. Whatever the motivations—social, economic or political—the UDC as a developer-of-the-last-resort is filling a critical void in the urban renewal program. It is apparent that private developers are just not going to wade into the swampy waters of the cities without having someone else wade in first and cut a clear channel through the swamp. Civic associations and concerned community groups also need someone to hold their hands to lead them through the perplexing planning process.

With its seed money, selected financing, prestige and perseverance, the UDC provides a needed boost to cautious developers, do-gooders and municipalities, breathing some life into the state's urban renewal program; but the program is still weak and basically handicapped. As the UDC noted in one of its informational brochures, the total renewal effort in the state, since 1949, covers a little more than two and a half per cent of the estimated 100,000 acres in sub-standard condition.

The problem raised by the UDC's growing and deep involvement with urban renewal is that it will sap UDC's energies and finances and divert them from the task it is almost ideally set up for: the development of new towns and new projects outside the city. It has become apparent to the UDC through a study conducted for it by the Regional Plan Association, and various conferences, that the cities will never be able to rebuild themselves as they must as long as the constant growth of population presses upon them.

"I have put 15 years of my life into rebuilding two American cities, at least in part, and I know just as surely as I know the Old Howard is gone from Scollay Square that the cities—New Haven, Boston, New York—cannot solve this problem by themselves," said Ed Logue to a gathering of city-watchers. "It is time we understand that fact, controversial and difficult as it may be, and build our urban development policies around it."

A few weeks after his statement, the UDC announced plans for two new towns (September issue, page 32.) The first and most ambitious is the Amherst project, on the outskirts of Buffalo, where the State University has been planning a \$650-million, 1,000-acre campus eventually to accommodate 50,000 students, faculty and administrative personnel, plus their families. It will be one of the largest university complexes in the world. The state has asked the UDC to integrate the proposed campus into a new town in the surrounding area that can support a population of 200,000 within 15 years and relate it economically, socially and esthetically to the neighboring and growing suburban communities. Beyond the physical plan, for which the British firm of Llewelyn-Davies, architects, has been hired, the UDC also will propose a method of financing and developing the new town. The approach of weaving planned government construction with private development into a new town fabric is unique to the United States, and it is noteworthy that the UDC is undertaking the weaver's job.

The second new community planned by the UDC lies 12 miles north of Syracuse in the town of Lysander. Here, the UDC has purchased, for \$1.5 million, 2,100 acres of the old Baldwinsville Ordnance Depot,

which was used for the manufacture of explosives in World War II and is now vacant except for the omnipresent abandoned automobiles. Preliminary plans developed by David A. Crane of Philadelphia call for an 800-acre industrial park and 4,600 units of mixed-type housing, with a town center and surrounding open and recreation space, to be constructed over a ten year period.

The tract and the plan are modest, but they do resolve some tricky political jurisdictional questions that could lead the way to similar developments elsewhere in the state. They also establish the precedent of the UDC competing with private developers for the purchase of tracts in the open market—and winning. But the proof of the pudding will come after the UDC completes its plans and tries to get private developers to buy them and build, hopefully within the next six months.

The present UDC new town efforts project a total population of 220,000—a start, but a long way to the state's expected population increase over the next 20 years of 4.7 million. Add to this figure an estimated 1.4 million New Yorkers now living in dilapidated or deteriorated buildings, and you end up with a total need of new housing in the state for more than 6 million people.

The UDC also has cast a cautious glance at suburbia, where Logue says he would like to see the corporation sponsor some small cluster developments of about 40 low-income units each. He has said that at this scale he was confident that the UDC could "create opportunities for low-income families to share in the good schools, the safe streets, the fresh air and open space other Americans like so well without unsettling or unbalancing the suburban communities."

This also was the recommendation of the Regional Plan Association in its study of housing opportunities for the UDC,

but so far Logue has given no indication of where and when the UDC will attempt to put its toe into the stormy waters of suburbia. The UDC has only moved into areas to which it was invited, and there has been no such invitation from the suburbs. If anything, the UDC has been warned by politicians, publicly and privately, to stay out. With its appropriations running low and a state-wide election coming up, it is not expected that the UDC will make any major moves to loosen the so-called white noose of suburbia that is choking the cities and enraging civil rights groups.

1970 looms large in the future plans for the UDC. At this writing, Governor Rockefeller has indicated he will run again next year, principally to fulfill his commitment to solve the urban mess, which is interpreted by many as an act of faith in the UDC. As problems for the UDC grow, the governor can be expected to lend his critical support to Logue. If Rockefeller should decide not to run, or if he is defeated, the UDC will have the difficult task of establishing a new relationship with a new governor—at a cost no doubt of some powers and some pet projects. Logue's political acumen will be taxed.

The political situation in the coming year demands that the UDC get as many of its projects as possible off the planning boards and into the ground. This would justify Rockefeller's support and give him ammunition against the inevitable attacks on the UDC. If he should decide not to run, an active building program just might raise the UDC above politics—the ultimate goal—and win bipartisan support. It is easy to fight plans, but nearly impossible to fight buildings, especially buildings supplying jobs, housing and taxes.

The problems are there, but so is the potential. The lights in the UDC offices will be burning bright and late in 1970. The pressure to produce is on.



Open-air pushcarts are bustling focus of Belmont Market, Brooklyn, N.Y.

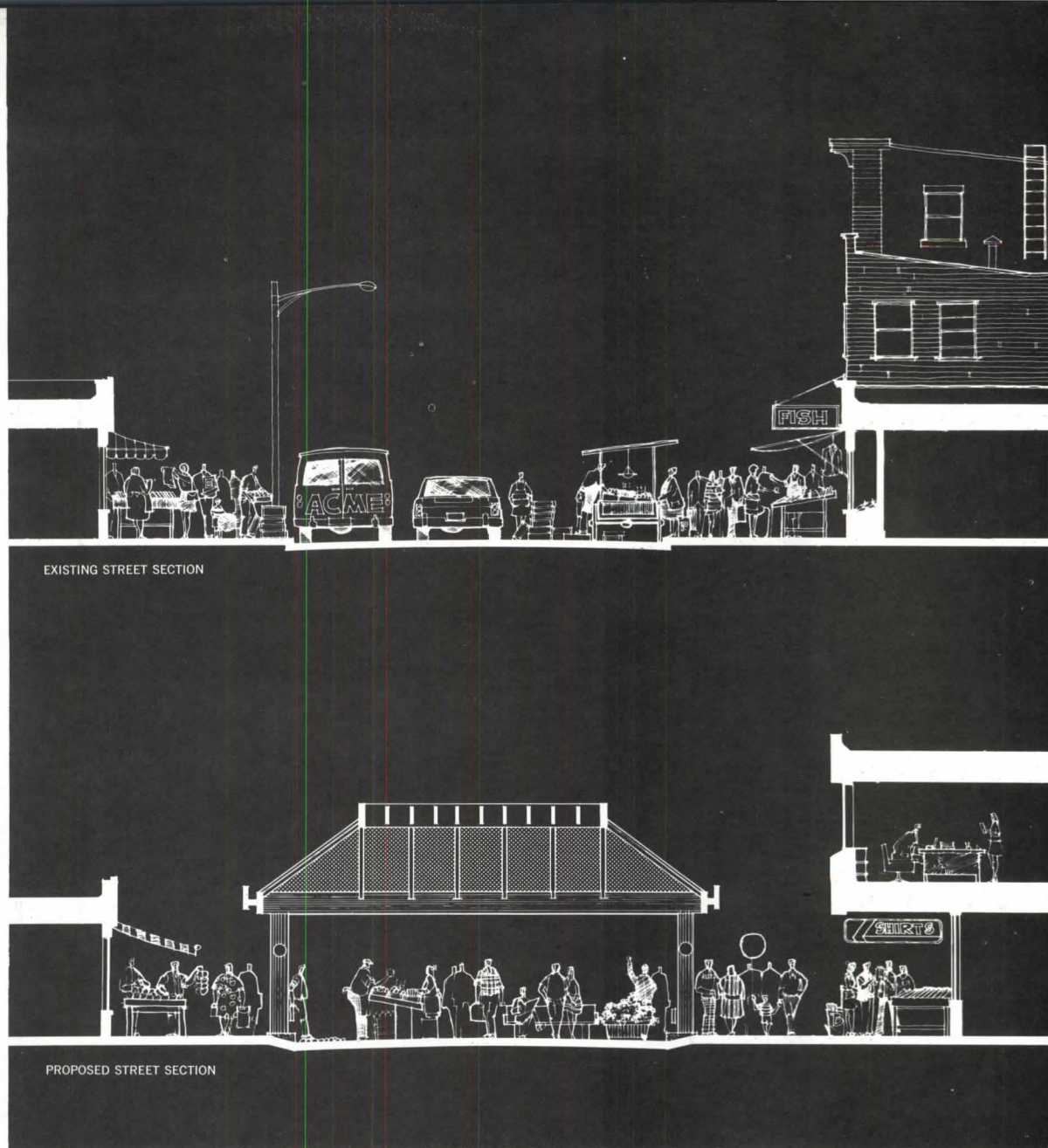
STUDENT POWER IN URBAN DESIGN

In June of this year, three proposals were put before the Model Cities Board in Brooklyn, N.Y. Two asked for grants of approximately \$50,000 to continue studies of particular areas of Brooklyn; the third was a complete presentation consisting of models and plans, and a feasibility study, ready for implementation, done at no cost whatsoever to the city or the Board. What made the study even more unusual was that it was initiated and executed, not by an established architectural firm, but by three graduate students.

Despite publicity over drop-outs and revolt, student involvement in community planning and design is mushroom-

ing across the country. Students want to get away from the sterility of abstract academic problems, and out to where the real problems are—in poverty areas, both rural and urban.

This student project is decidedly urban. Columbia University's requirements for the thesis for the graduate degree in urban design specify concentration on big city problems. Larry Yaw, Tom Thorpe and Garri McNeil, three 1969 candidates for this degree, wanted to undertake a real community planning problem and they wanted to develop realizable plans with the community. They wanted to prove that student involvement in a project of some scale could be meaningful



Market today—and as projected: modular roof covers permanent carts, professional offices jut out over storefronts.

not only to the student, but, much more, to the community as well.

They went to the Model Cities Board in Brooklyn, and talked with its director, Horace L. Morancie. Though skeptical at first (many students had come "to help" and had then produced nothing), Morancie was finally convinced, and suggested that they work on a very specific area in the Brownsville section of Brooklyn that had not been studied previously: the Belmont Avenue Market.

The Belmont Market is a string of open-air pushcarts (and store-fronts) located in a wasteland of derelict lowrise buildings surrounded by a sea of

slab-like highrise public housing. It is, however, adjacent to a thriving commercial street that is, mainly, used by "outsiders." Besides this commercial enclave, Brownsville has no community or cultural or recreational center, no social gathering place. Yaw, Thorpe and McNeil wanted to develop the Market into a total focal point for the area.

Doing a project of this scale, however, created a whole set of problems not related to design. Not the least of these was financial. They saw that, without outside money, they would have to do everything that a subsidized study can hire experts to do: research, fact-finding, photographic work, etc.

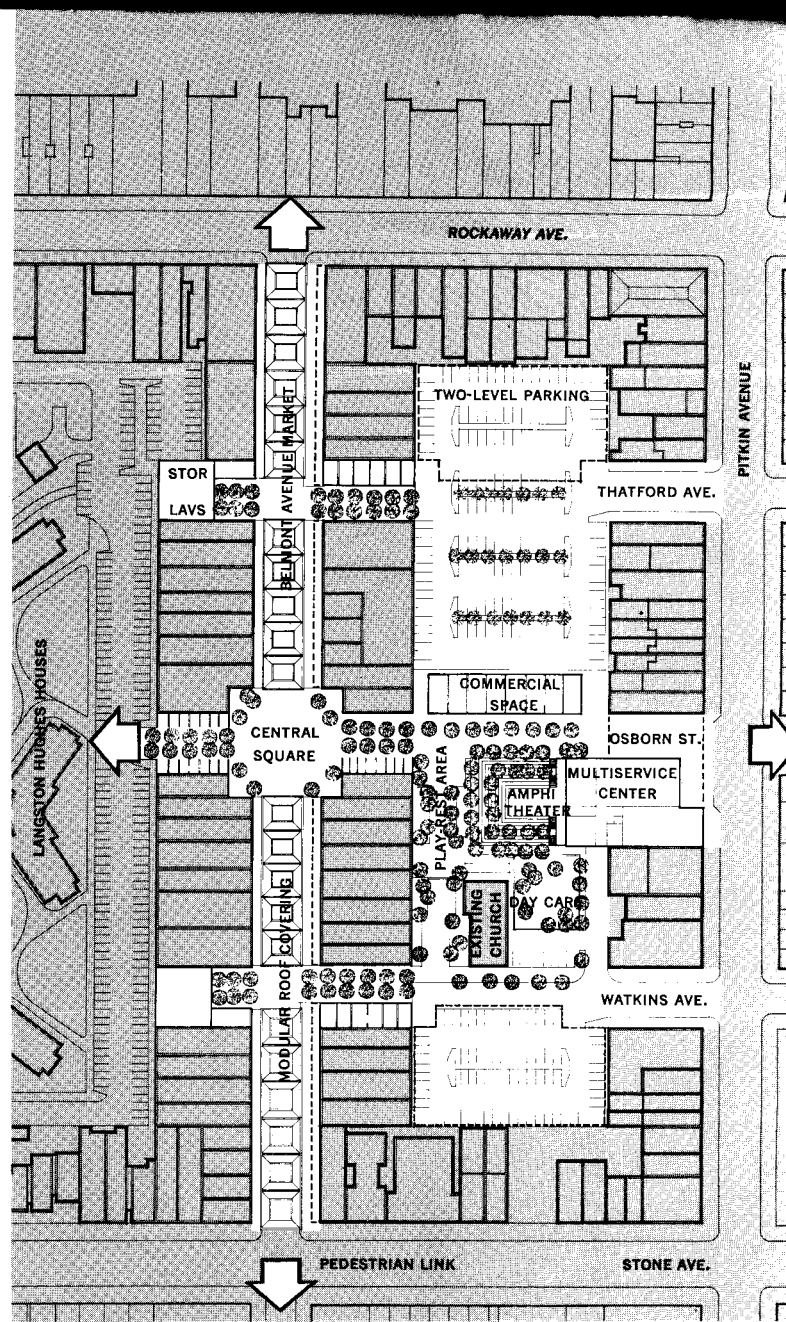
They went to the Urban Center at Columbia and applied for a small grant of \$7,000. Their subject was appropriate for a grant, but they could not receive money because projects undertaken for academic credit are ineligible.

Because of lack of funds, the three had to commit time to "legwork" that could have been spent on design and implementation. They also felt the pressure of other academic commitments. Each managed, finally, to correlate all other courses—housing and urban development, urban design and theory, business aspects of income-producing properties—to fit in with the project.

Since there was little previous

primary source material to be found, information was difficult to collect. Much of it simply came first hand from trips to the Market area. Each of them spent from five hours a day at the beginning to over 18 hours a day at the end of the academic year working on the project—talking with neighborhood officials, with vendors and store owners, with community leaders, and finally preparing the models and plans both for their academic jury and for the Model Cities Board.

Brownsville is pockmarked by boarded-up, decayed and abandoned buildings. Whole streets are uninhabited except by drug addicts. Some areas are under development, but even the new-



The Belmont Market area (foreground in aerial) will become (plan) a total focal point for the community. Arrows indicate pedestrian links to housing.

er housing, all highrise, looks as if it had been built over 20 years ago. Sewage pipes are over 70 years old; transportation service is poor; rats are everywhere. One-third to one-half of the families are on welfare.

The 10-block Market area is gutted, and most of the buildings could be demolished immediately. The buildings form a "corridor" parallel to Belmont Avenue, and are now used to store pushcarts and merchandise, mostly produce. Fewer than 70 families would have to be relocated in this plan, a major point in favor of its acceptance.

This Market, despite its poor condition, serves a trade area of about one mile in radius. Com-

mercial activity of the Market as defined in the study is divided into four categories: indoor stores, indoor-outdoor stores, wallspace stands, and the pushcarts. All the stores are in fair to poor condition—and constitute about one-half of the Market's sales capacity. Professional offices are few. The 60-odd pushcarts operate on a seven-day-a-week basis, and their prices are substantially lower than those in nearby supermarkets.

Yaw, Thorpe and McNeil wanted to retain the character of the pushcarts and the casual atmosphere they generate. They formulated a plan for a 10-block gathering place and community center off the commercial artery,

where people could congregate while shopping or afterwards.

In the plan, they propose to close Belmont Avenue to traffic and repave it, then line the avenue with permanent, cleanable carts constructed of concrete. To protect the carts from bad weather, the street will be covered with a modular roll-top roofing (see section).

Off the avenue will be two vest-pocket parks, with benches and refreshment stands; the parks will be backed by storage buildings where pushcart produce can be kept overnight. These buildings will also have public laboratories, one more of the many facilities lacking in this neighborhood.

Midway down the avenue will be an open plaza, with a fountain in the middle designed so that people can sit around it. Away from the fountain, and perpendicular to Belmont, will extend a mall that opens into a larger "park." In the park will be rest and play areas, a day care center for children, and, at the end of the mall, a multi-service center or community center. There will also be an amphitheater for speeches, performances, community meetings, etc.; it is designed for double use as a swimming pool.

Across the park from the amphitheater will be stores, with professional offices above. Most of the existing stores are owned



Model: "Corridor" for parking, community and day care centers, amphitheater, and commercial space. Mall extends to Market artery, pocket parks, storage space.

by Puerto Rican or Jewish shopkeepers who have moved elsewhere; these new stores and others along the mall and avenue will be owned by blacks who will be trained in business by the Small Business Administration, who can also help them finance the stores with loans. An incentive program is proposed to encourage renovation of existing stores and provide more professional space.

Behind the stores are parking facilities; because the entire Market project is conceived for pedestrian use, vehicular traffic will be excluded from the area. Only deliveries, in the early morning, and garbage collection at night, will be allowed.

Pedestrian links will connect the Market to peripheral areas, and to housing projects beyond. One link will go to existing schools; one to the subway several blocks away.

Yaw, Thorpe and McNeil left their study, the models and the plans, with the Model Cities Board after their June presentation. Morancie has started the project on the road to implementation, but the study first has to be presented to other community committees in Brownsville, to generate additional support. The project also has to be approved by HUD in Washington. Morancie is hoping that the Early Action program, which is often used for Model Cities

plans, will be applied to the Belmont Market project.

Citizens of the Belmont Market area who have seen the model since the June presentation are impressed. The project proposal might be displayed in the Market to solicit further suggestions from the community.

In the meantime, Yaw and Thorpe come down from new jobs in Boston to talk with Morancie, visit with committees and with the community, working to keep the wheels in motion. McNeil, now teaching at Columbia, hopes to form a coordinating group between students, school, and city officials, to make projects like the Belmont Market study easier for

students to undertake in the future, to eliminate many of the procedural steps, and to make information more readily available.

"There is a lot of concerned talent in the schools," Yaw says, "and lots of problems in the cities; this project has convinced us of the real value of coordinating the two." If programs of information exchange with city agencies were organized, if grants were made available and if curriculum emphasis were on *actual* redevelopment projects, then students could become involved in city programs, and the results could be other thoughtful realistic projects, like this Belmont Market redevelopment.

—BO THORNE

NEW PROJECTS BY VICTOR LUNDY

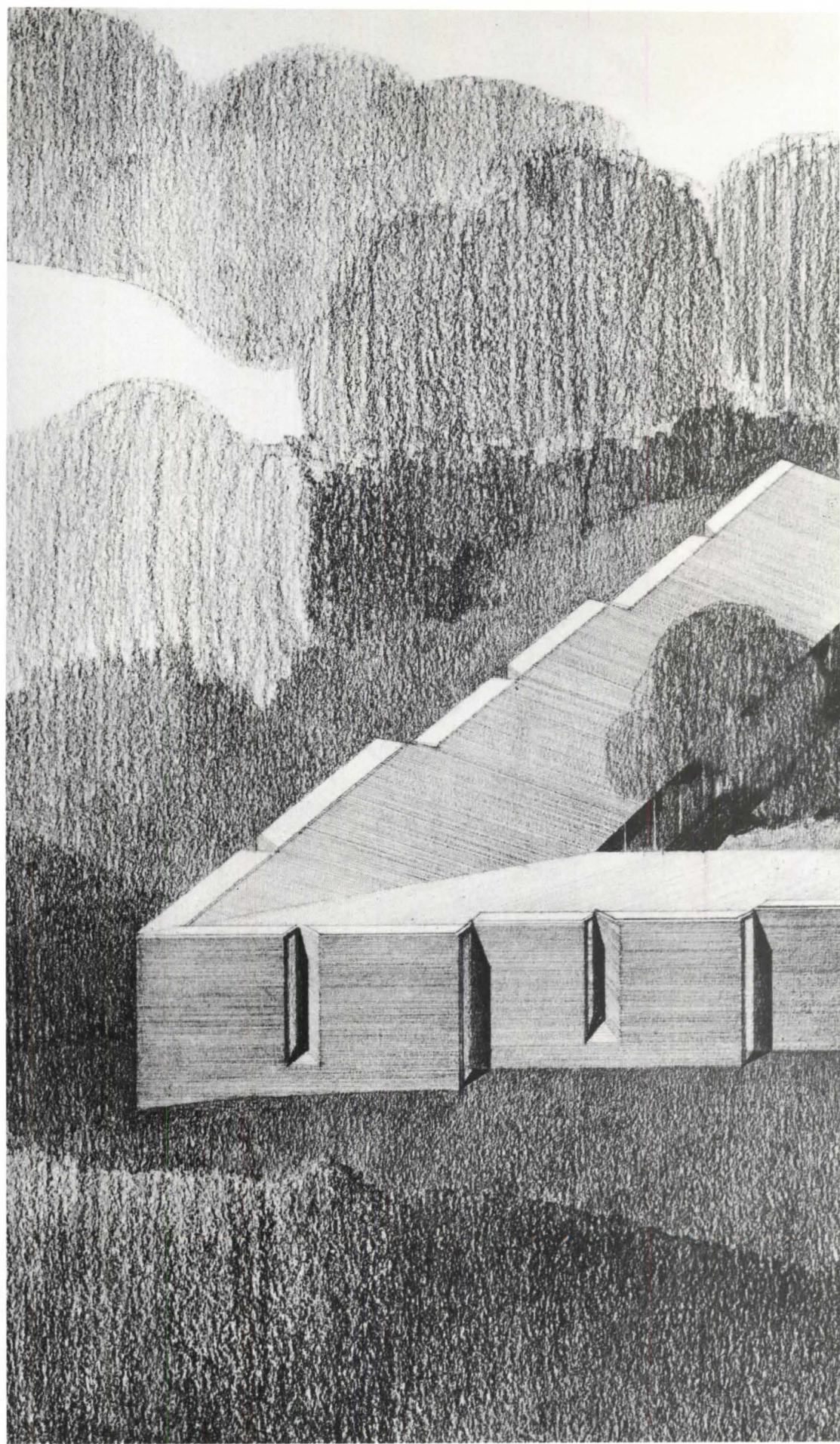
Three new buildings designed by Victor Lundy—an education building for a private school and a university chapel, under construction, and a public school in New York City, about to go out for bids—are shown here and on the following pages in a series of his exquisite and masterful drawings. Lundy's new work continues his humanistic, experiential approach to architecture. His carefully studied, painstakingly detailed design solutions are characterized by compositional unity, direct expression of function, and simple use of materials. —JOHN S. MARGOLIES

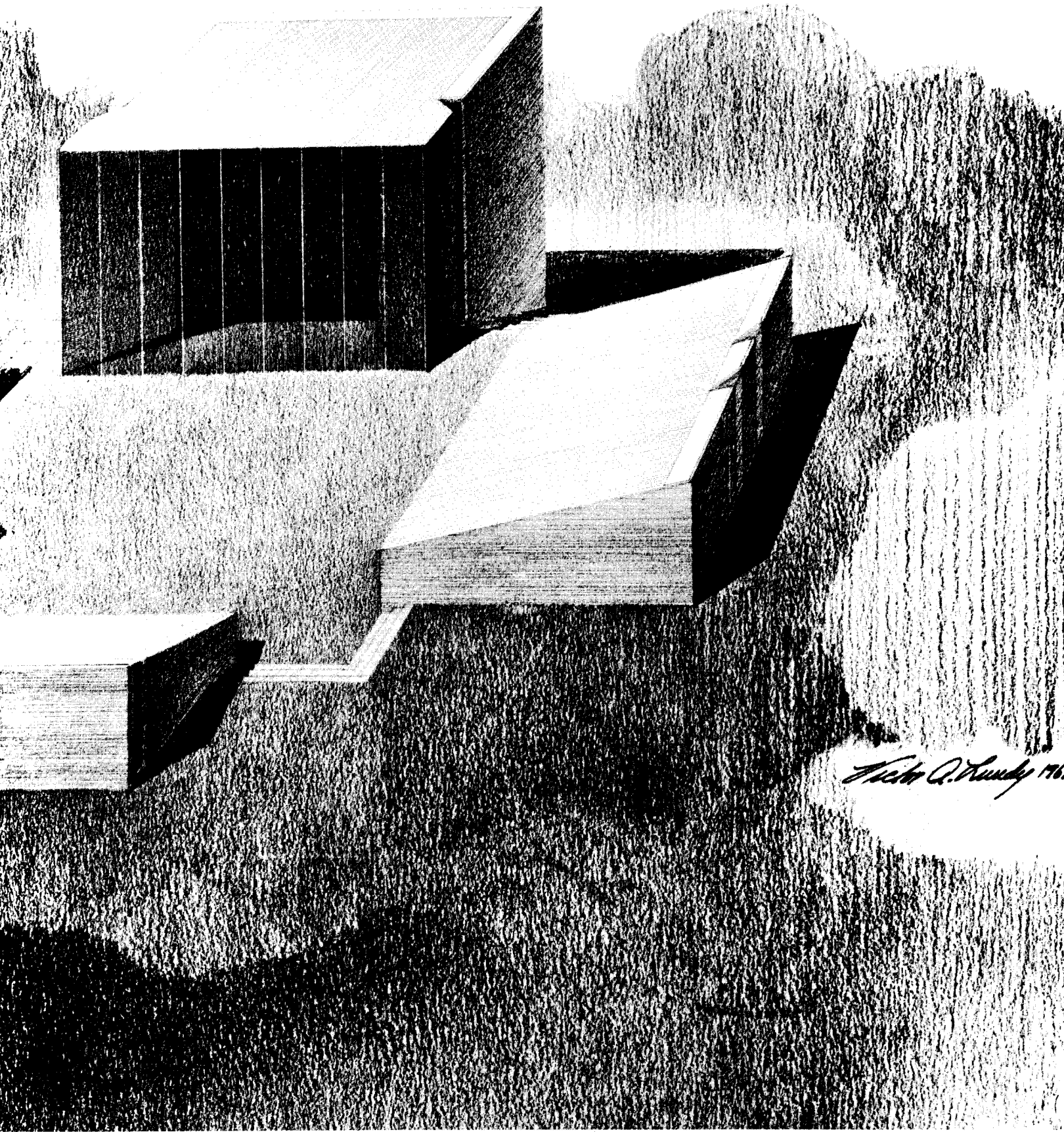
EDUCATIONAL COMPLEX DEFINES A COURTYARD

The new education building at St. Bernard's School, a private boys' school in Gladstone, N.J., is really three buildings broken apart and connected together below at a lower level. "For proper scale and relationship to the existing permanent brick buildings to the north," says Victor Lundy, "rather than pulling everything together into one big anonymous block, I purposely broke it apart into its basic elements of program and allowed the land to sweep gently through it and past it on down the hill."

Within the complex are an L-shaped humanities classroom wing and a science wing, both with shed roofs sloping down to the inner court, and a 45-ft.-square, 28-ft.-high library, which will become the major interior space of the school. Below the library is a stepped lecture hall and underground connections to the other buildings within the complex.

The construction is brick bearing wall, with a French gray velour brick laid in Flemish Bond—traditional at St. Bernard's—used on interior and exterior surfaces.





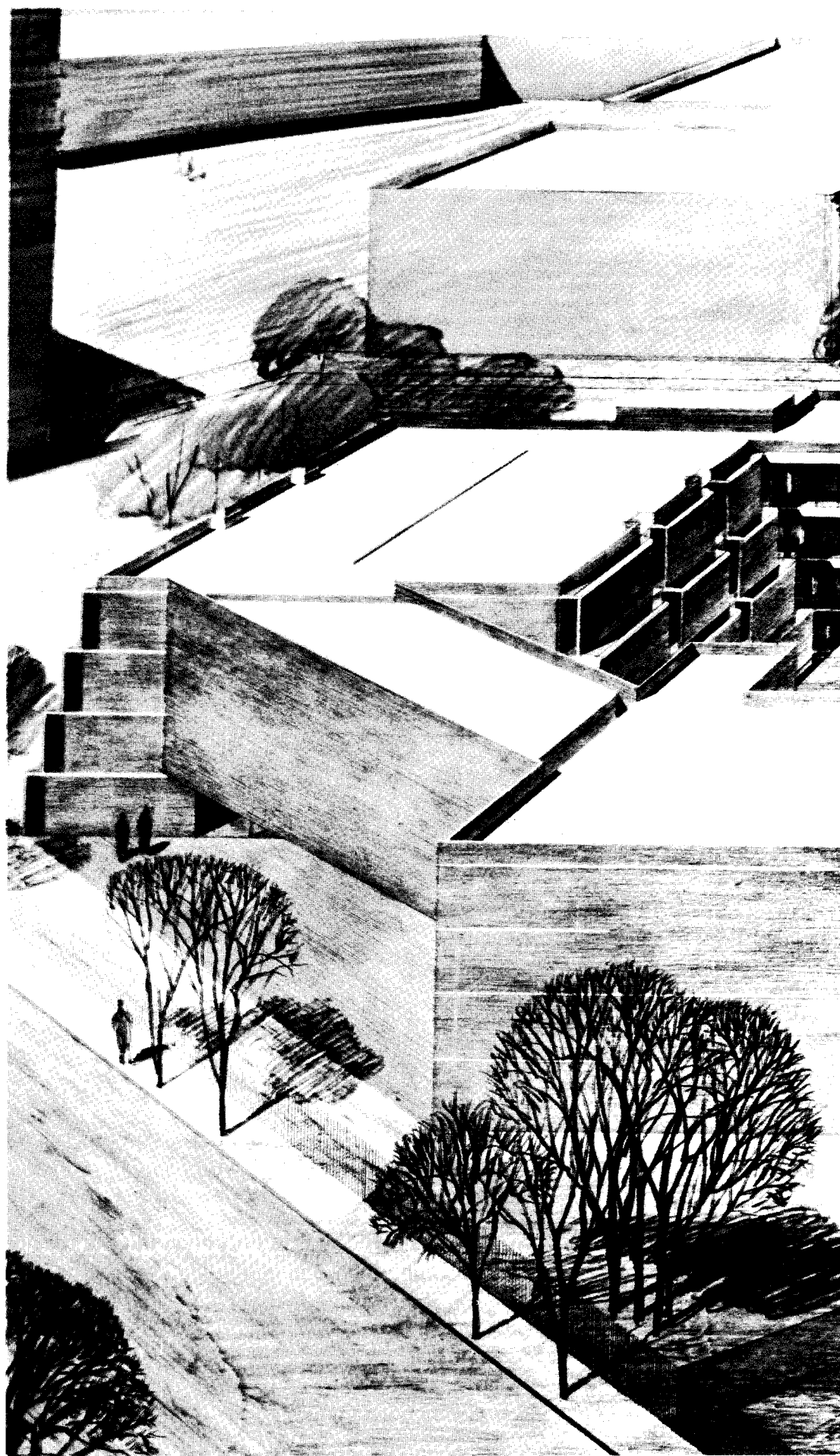
Richard A. Hundley 1969

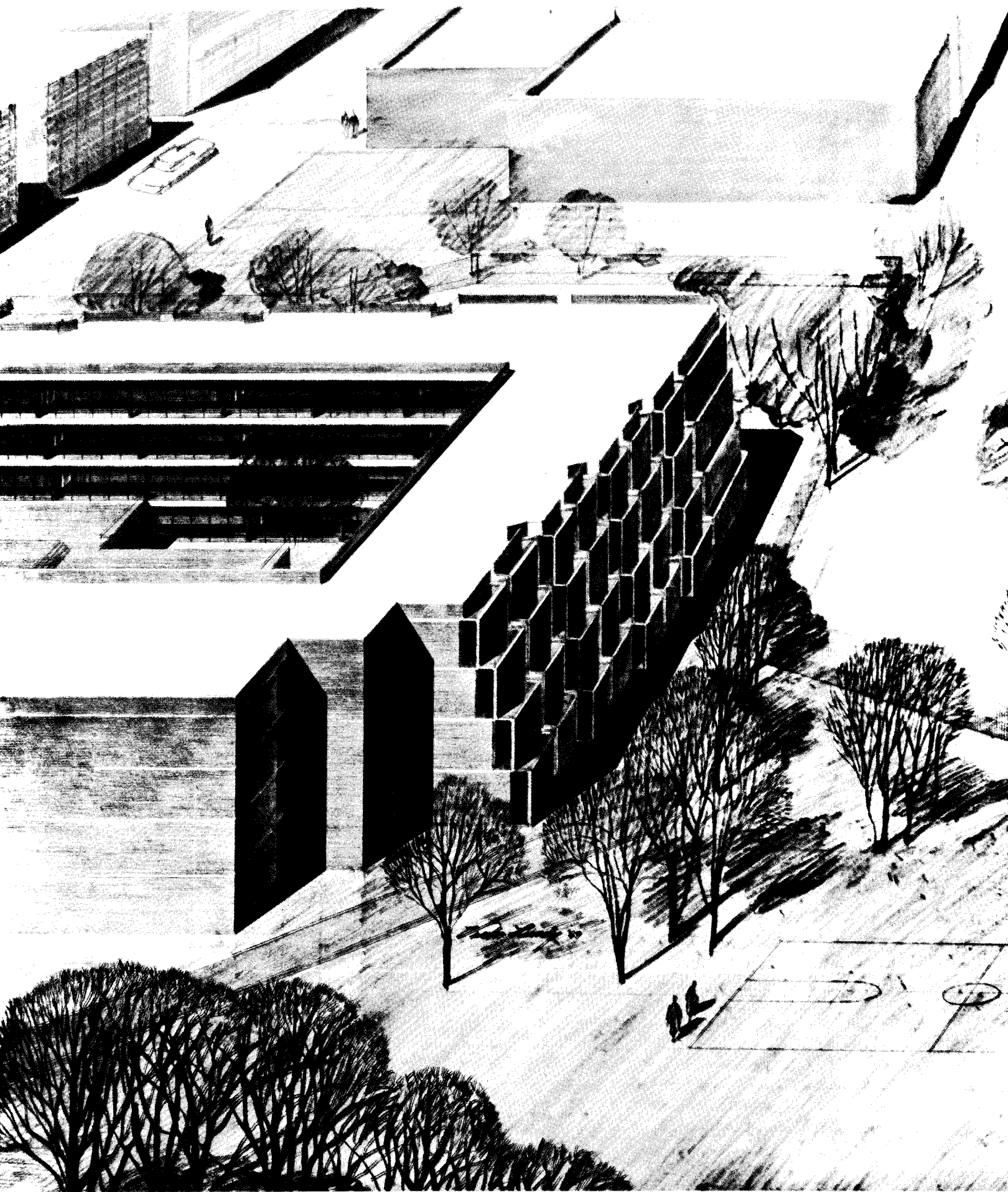
VARIETY OF EXPERIENCES SHAPES A PUBLIC SCHOOL

In this attempt to provide an "architecture of spirit, substance and artistry accomplished within the restrictions of program, standards and other disciplines that had to be faced," Victor Lundy has designed a sophisticated and innovative solution for Intermediate School 53 in Far Rockaway, Queens, and his client, the Board of Education of the City of New York. Instead of a huge, monolithic mass to meet the complex demands of the program, Lundy organized the building into three connected, four-story elements enclosing a courtyard. Other factors which shaped the massing of the building were an odd, multi-angled site defined by a confluence of streets; a low-key, low density, tree-lined residential neighborhood; and Lundy's desire that "everywhere in the building there be an awareness of where one is in the total scheme—a reference to court, to sky, to ground."

As in his design for St. Bernard's School, Lundy expresses different functions as separate but interconnected facilities. The three elements in this complex are joined above ground level, and, reading counter-clockwise in the rendering at right, consist of the gymnasium-auditorium wing (lower center); an L-shaped classroom wing; and a third unit containing administration facilities, special classrooms, and laboratories organized around a sky-lighted, four-story-high public hall, and also including a section which bridges the courtyard entrance and connects to the gymnasium-auditorium. The multi-level courtyard, entered by a flight of stairs from the street, will feature a "water wall," water pools, trees, and landscaping. There are a number of entrances from the courtyard and exterior to the three units in the complex, including an exterior stairway from the courtyard to the auditorium so that it can be used independently by the community.

The program for this intermediate school calls for an enrollment of 1,800 to be broken down into three independent subschools of 600 students each. A subschool occupies each of the top three floors in the complex, and a strong horizontal and ver-

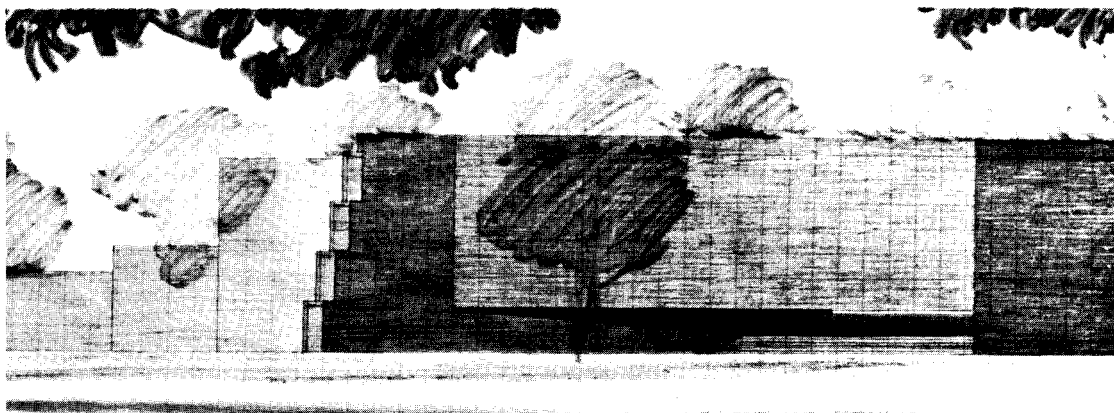
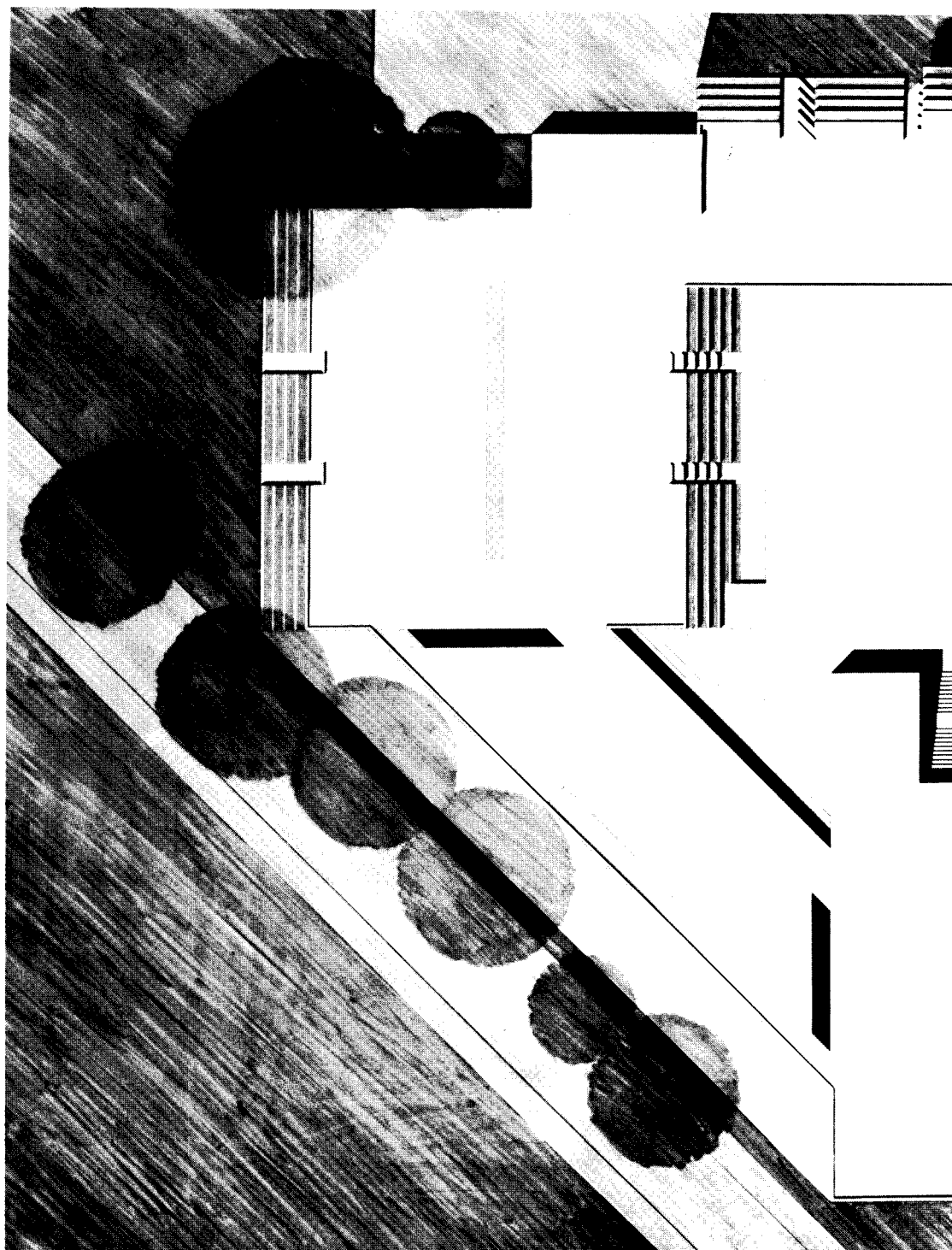


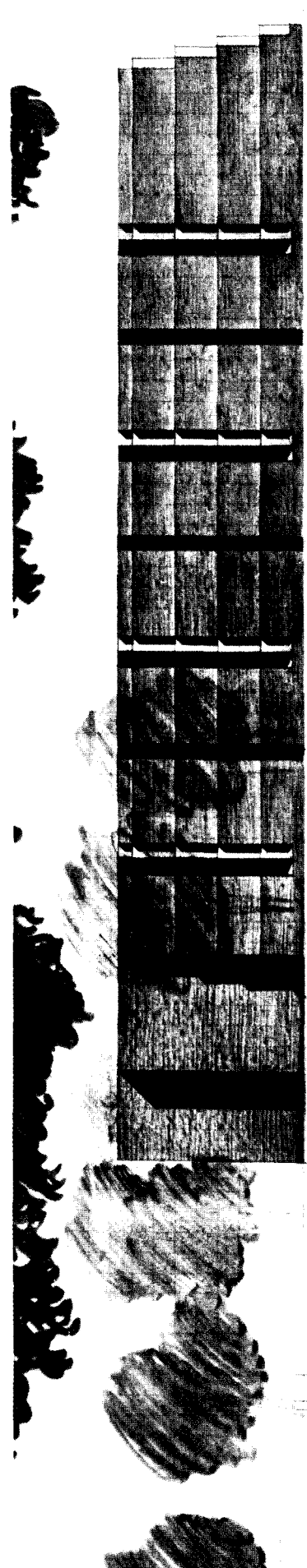
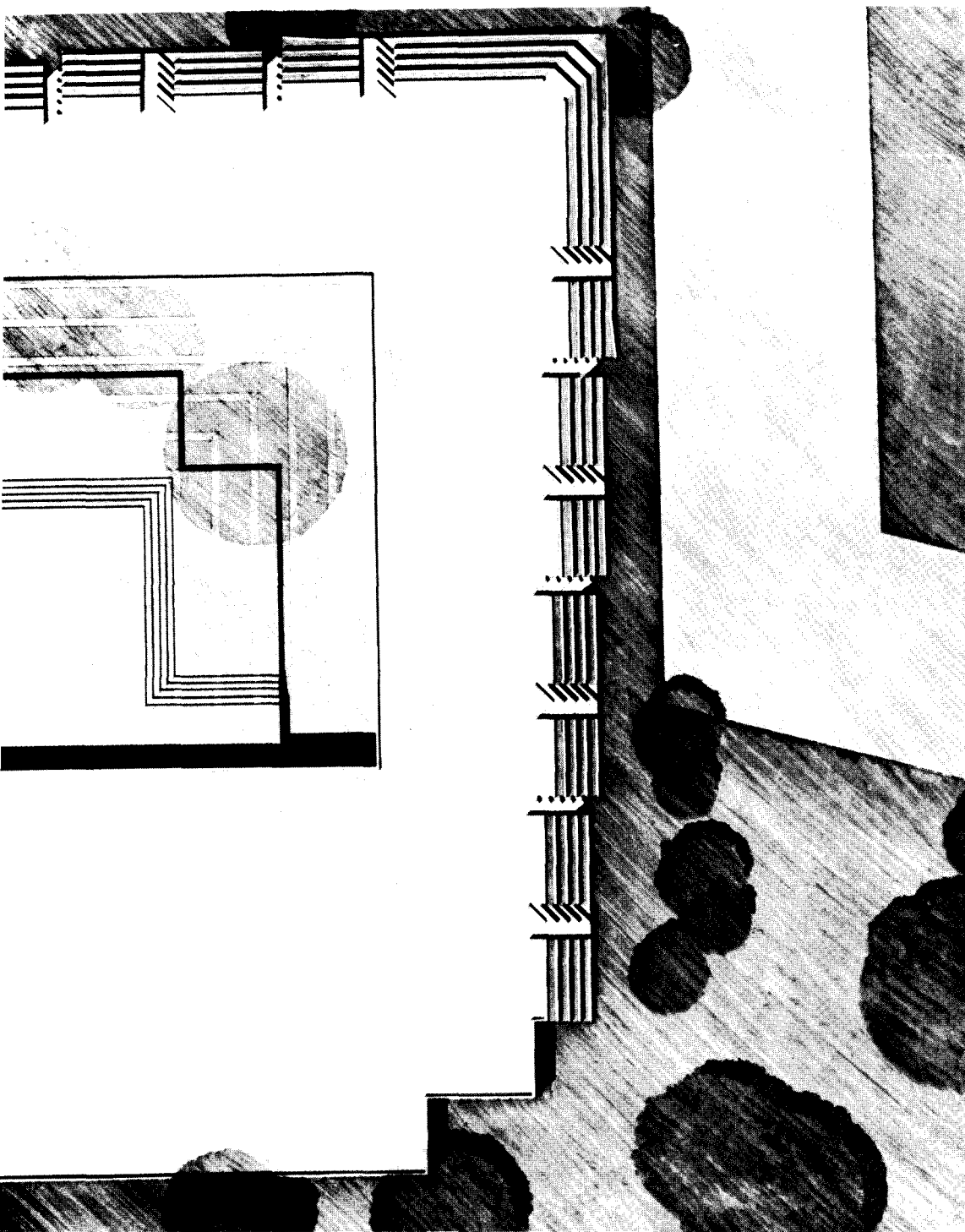


tical organization relates the functions to one another and to the whole. The ground floor contains facilities shared by all—cafeteria and auxiliary classrooms below the courtyard; administration; special study classrooms; guidance rooms; and shops.

The circulation in the complex and on each of the subschool floors, says the architect, is structured by “an idea of purposeful movement” to provide “a world of experience and effect, of change.” Single-loaded ambulatories on each floor of the classroom wing look down on the courtyard through bronze-tinted glass, providing a sense of renewal and reference to the outside world between classes. This openness is contrasted with the controlled light in each classroom, where the architect sought to avoid distractions and provide more wall surfaces for educational use. Each floor on the exterior of the classroom wing and on part of the special classroom wing is offset to provide a continuous skylight, with each classroom also having floor-to-ceiling windows in the corners at right angles to the exterior wall. There are three double classrooms in each leg of the L-shaped wing which can be expanded to six classrooms by center folding walls. In the corner of the “L” is a library resources center for each subschool joined vertically by a dumbwaiter.

The exterior has a velour-textured French gray face brick and bronze-tinted glass. In the structural system reinforced concrete supporting shear walls are spanned by poured concrete slab and beam system, with the beams coffered to receive continuous runs of fluorescent lighting fixtures. Interior walls will be “giant,” hollow French gray brick fired under high temperature for easy cleaning. Supporting walls and ceilings will be exposed concrete, and non-bearing walls will go up to door height with glass above. “There is a strong order of structure, light, piping and mechanical heating system to the building,” says Lundy. “The systems are all exposed and help make the beauty and strength of the building.”





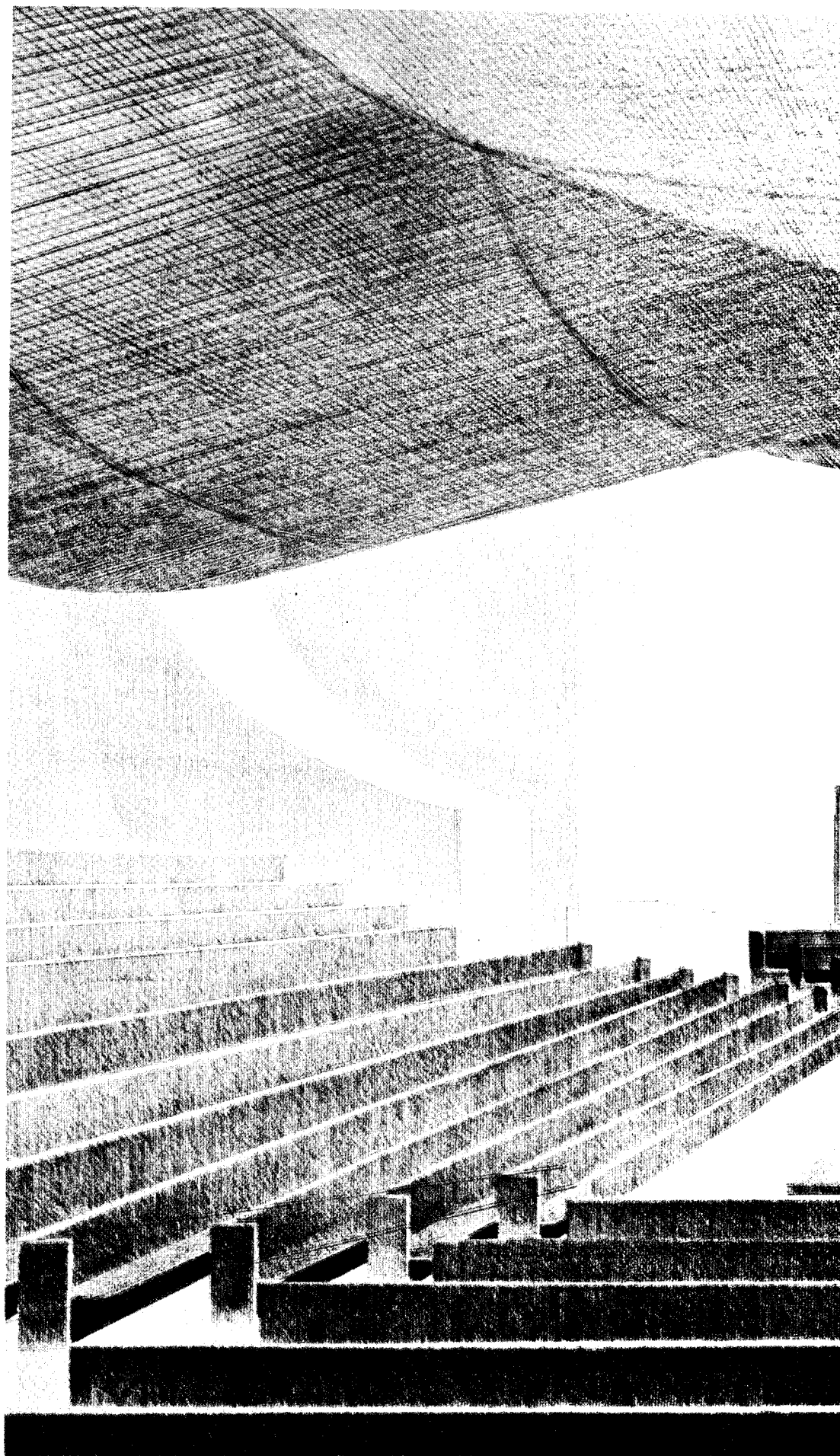
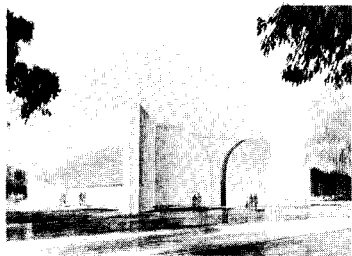
SPECTACULAR SPACE IN A UNIVERSITY CHAPEL

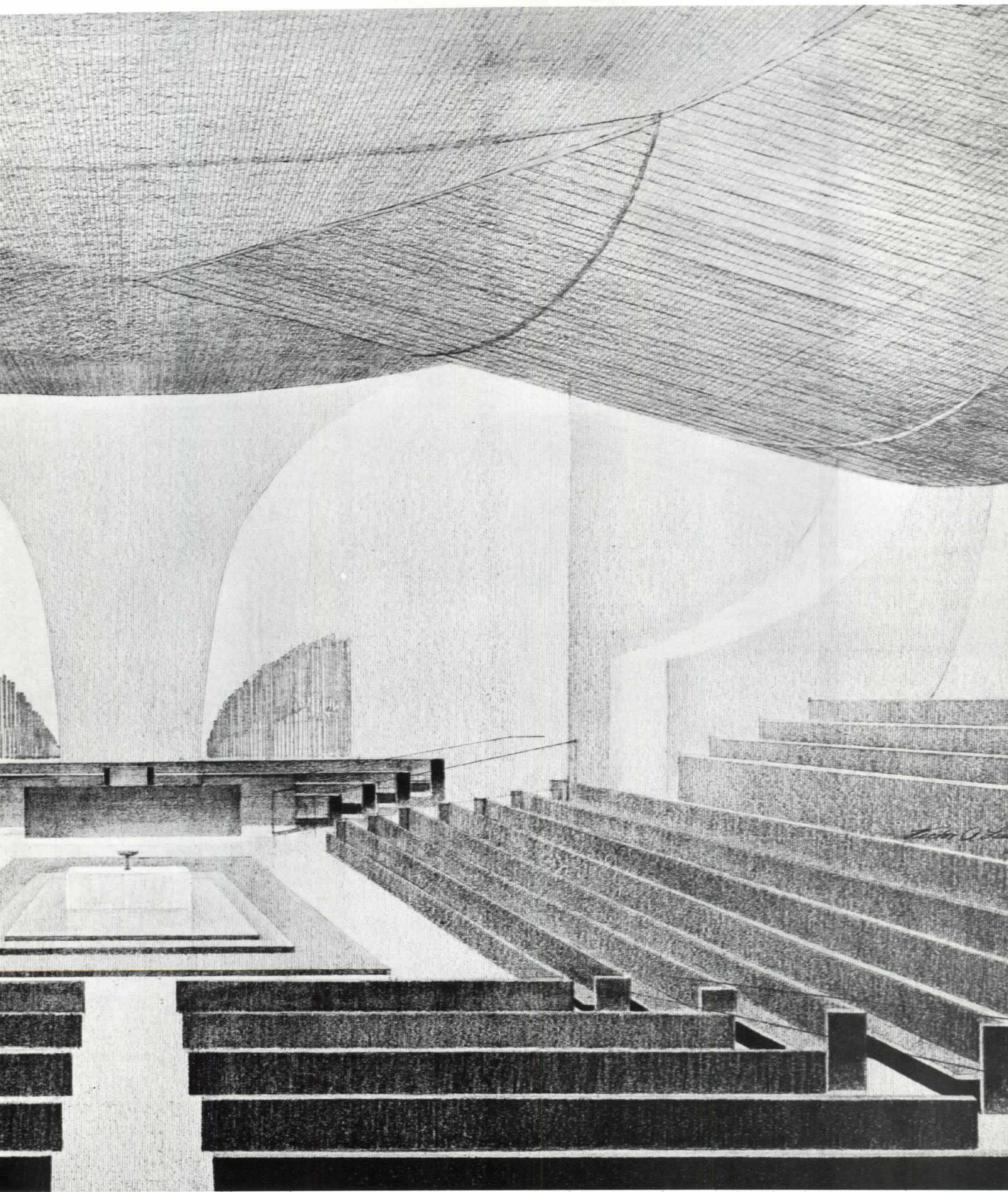
Victor Lundy's design of the University Methodist Chapel for The Wesley Foundation at Florida State University, Tallahassee, is a direct functional expression accomplished within a small site and limited budget. The program called for a worship place seating 750, also to be used for singing, drama, and as a central student place. To provide this flexibility of usage, the building is essentially a great, clear-span room, 105 ft. square and about 25 ft. high at the center, elevated on an upper level. The Chapel is reached from below by four gentle diagonal ramps and by corner stair towers.

Spanning and enclosing this great space is a steel cable system, with cables hung in catenary curves in concentric squares from diagonal supporting members hanging between the stair towers. The final ceiling and roof surface is formed in one operation with double-tongue-and-groove heavy wood decking clipped to the cables and spiked laterally to one another.

The building is entered from the north at ground level through an indented entry which is expressed as a sweeping chalice form. The interstice of the chalice form is filled with bronze, glare-reducing glass, which washes the north wall of the chapel with natural light. The other three wall elevations are identical expressions of the form of the sloped seating, overhanging the setback of the ground floor walls.

"There is a nakedness to the structure," says the architect. "One is aware of how it is all put up, of how it is supported. The structure, the means, the sequence—is the decoration, the beauty." Construction is entirely of monolithic, poured, reinforced concrete, using plastic impregnated forms, with horizontal pour lines, joint lines and tie holes patterning interior and exterior surfaces.







FORUM CONT'D

One commission source, said Doyle, considered it highly unlikely that any of the three cities' plans would be accepted in their present form (Jan./Feb. '68 issue, page 44; May '69 page 95).

Meanwhile, three groups of architects, whose plans had originated independently, have formed a coalition to urge that cities all along the Northeast Corridor be Expo way-stops along a sophisticated new high-speed transit network. One of the groups is Cambridge Seven, who designed the exhibit structure inside the U.S. pavilion at Montreal's Expo 67.

PEPSI EATS IT UP

COME ALIVE says the Pepsi generation, and in keeping with their message the Pepsi-Cola Co. asked E.A.T. (Experiments in Art and Technology Inc.) to create the ultimate in multisensory experience for their pavilion at Japan's Expo 70.

The pavilion (below), already designed by Japanese Architect Tadashi Doi, is a 120-ft.-diameter faceted dome which will be the outer shell for E.A.T.'s sight, sound, and touch environment.

Creator Robert Breer, with Robert Whitman, Forrest Myers, David Tudor, and others, wanted to "allow the visitor to enjoy the responsibility of making his own experience."

Over the pavilion, sustained by 2,520 vapor-producing nozzles embedded in the dome, will hover a cloud bank which will partially obscure the pavilion. A sun track sculpture, of mirrors

rotating with the changing position of the sun, will send a 10-ft., light-beamed triangle into the cloud and onto the surface of the dome. At night the pavilion will be silhouetted within a tilted square light frame of interconnecting light beams radiating from poles at the four corners of the surrounding plaza.

The plaza itself will be populated by seven man-sized, gum-drop-shaped floats which will wander freely over the area emitting sporadic bleeps; they can change direction when touched.

Entrance to the pavilion will be along a shiny-walled tunnel into a "clam room" shaped like a flying saucer. The room, of a spongy texture, will be dark except for a laser shower of multi-colored light which will be activated by sounds.

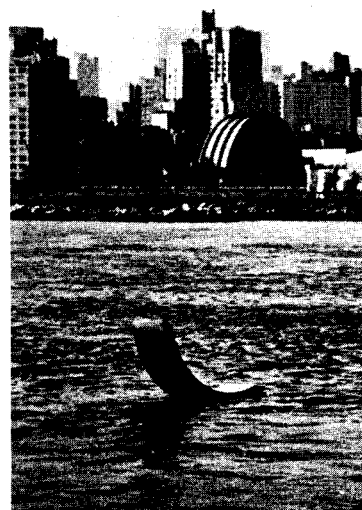
The floor above will be a domed room with a huge, 90-ft.-diameter spherical mirror reflecting visitors upside-down. The floor will be of 13 different surface materials activated by handsets which, like Geiger counters, pick up birdsongs on grass, car horns on asphalt, etc.

Besides individually-initiated experiences, the pavilion will have its own running program of sensory stimuli. The whole turn-on will cost Pepsi \$2.5 million.

NO SHOW

No, it wasn't Woodstock because the rock group didn't show, and it wasn't the Museum of Modern Art because the richies didn't show—it was the New York Avant Garde Festival held, this fall, on Ward's Island across a footbridge from Manhattan, and pretty much nobody showed.

There was a foam igloo and a



plastic tent and a couple of Johnny on the Spots for architecture; a bongo player for music; an ardent typist taking down whatever he overheard (under a tree called Cloud Station #2) for literature; a few miscellaneous hippies for authenticity; and a cop for atmosphere. And there was Oracle 1966, created by Salvatore Romano out of plastic and steel (above) for art. When the camera buffs got tired of trying to find nudies (it was chilly), they could photograph Oracle against Manhattan's skyline, though most of the fun-seekers thought it was floating debris.

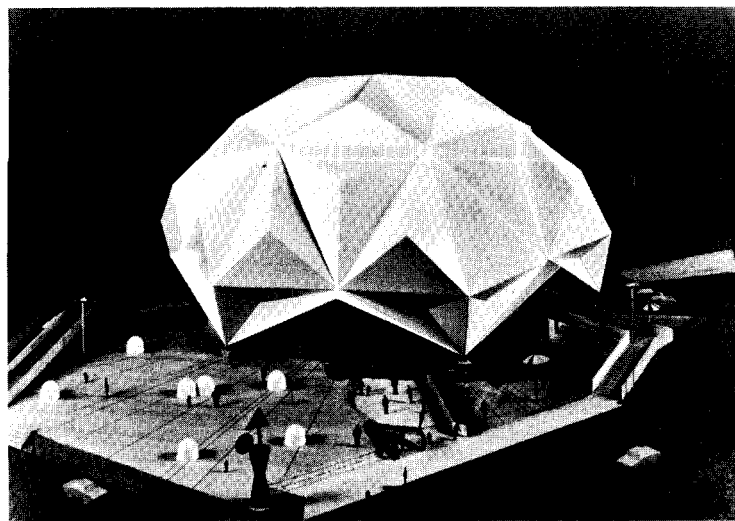
REBIRTHS

HUNT CAPTURES 'THE ROCK'

San Francisco's Board of Supervisors agreed last month to negotiate a contract for the development of Alcatraz Island only days before New York city presented its plans for Welfare Island (October issue). The "givens" are not exactly comparable, nor are the "gots."

San Francisco got a scheme by Lamar Hunt, son of ultra-conservative, multimillionaire H. L. Hunt, which, when compared with some proposals, was ultra-conservative at \$6 million.

Hunt will conserve the prison, for tours—and, presumably, restore it, since structural damage has made the main cell block unsafe. He will revive the 1890s in a shopping area on the island's north end. And he will build—underground at the southern tip—an Apollo moon landing museum, beneath a vast open plaza with fountain and life-size



FOOTNOTE

BOOST — This truck was photographed, not too long ago, by a Forum spy on a construction site in the East 50s in Manhattan. Our man doesn't know who was responsible for the plug, but we'd like to think that it is all part of the AIA's recent image-building efforts. Obviously a move in the right direction. Photo: Tim Street-Porter.

statues of the astronauts.

San Franciscans can be grateful for one thing. Hunt was persuaded to abandon his "Apollo," a tower the exact height of the moon rocket and topped by a several-times-life-size replica of the space capsule.

Asked by the board at his first presentation of the plan if it might not be wise to submit his ideas to a design competition, Hunt replied that it "might come up with a beautiful design, but with no economic merit." If one were to be held, he "would have to withdraw."

The economic merits of Hunt's plan were, indeed, convincing. The city would have had to begin paying the federal government maintenance costs of \$1,800 per month starting October 1. Hunt proposes giving the city over \$2 million to buy the island from the Feds, a percentage of the gross from his tourism receipts, plus property taxes.

Though no architects were in evidence, powerful last-minute support for Hunt came—not surprisingly from Mayor Alioto and Dr. Wernher von Braun.

SILOS THAT SWING

Le Corbusier, in 1920, definitely dug grain elevators: "The American engineers," he said, "overwhelm with their calculations our expiring architecture." The 24 silos of the Ballard Mills in Louisville, Ky., (below) might have expired as architecture if Architect Jasper D. Ward and some business associates had not a few engineering calculations of

their own. They will convert the structure into apartments for "swinging singles" and childless "young marrieds."

The 96-ft.-high exterior silos, 18 in all, will become 84 split-level and 48 efficiency apartments by installing 12 circular concrete floors—6 in. thick and spaced 8 ft. apart—in each of the cylinders. Balconied openings will be cut through the 8-in.



thick reinforced concrete walls. The six interior silos will become service cores.

The rectangular portions of the structure form a cross. The center section—the old grain elevator—will house additional apartments and passenger elevators. The penthouse, or "wings" of the cross, under which the silos cluster, will house an all-weather swimming pool, recreational and health facilities, a restaurant, and a bar. The bar will completely circle the pool below water level for a barfly's-eye view of swinging swimmers.

Ward and his partners also hope to develop the remainder of the abandoned mill property into a commercial and entertainment center.

THAT \$2 MILLION SOUND

Philharmonic Hall at New York City's Lincoln Center has been under an acoustic cloud, literally and figuratively, since it opened in 1962. Alterations unveiled this season will, one hopes, end all that. Now, a solid, 13-step ceiling installed over the auditorium replaces the metal reflectors, or "clouds," which had dampened the cellos and reflected the brass.

In all, acoustic alterations to the hall have cost Lincoln Center over \$2 million since 1962.

Reactions, as before, were mixed, ranging from that of Harold C. Schonberg, music critic of the *New York Times*—"a startling improvement"—to that of conductor-pianist Skitch Henderson—"no difference."

MONUMENTS

NEW FACE ON THE AVENUE

Two long-simmering architectural schemes for Official Washington—one monumental, one merely monstrous—were moved back to front burners last month:

- The Pennsylvania Avenue Commission's plan, said Chairman Nathaniel Owings, was being given a "shot of adrenaline" by the Nixon Administration in the hope it may be implemented by the nation's bicentennial year, 1976.

Scrapping the former Administration's scheme to finance the plan through urban renewal funds, President Nixon, in January, will ask Congress to establish a public-private corporation. Sale of bonds or shares to private enterprise would raise the money for a proposed \$200-million revolving fund.

Congress must also approve the commission's plan and grant authority to condemn property. Then, following Owings' remarks, Congress axed the \$77,000 requested by the commission to fund its activities until next July. Through its vice-chairman, Daniel Patrick Moynihan, the PAC is urging the White House to tap contingency funds so it can help get Nixon's legislation underway.

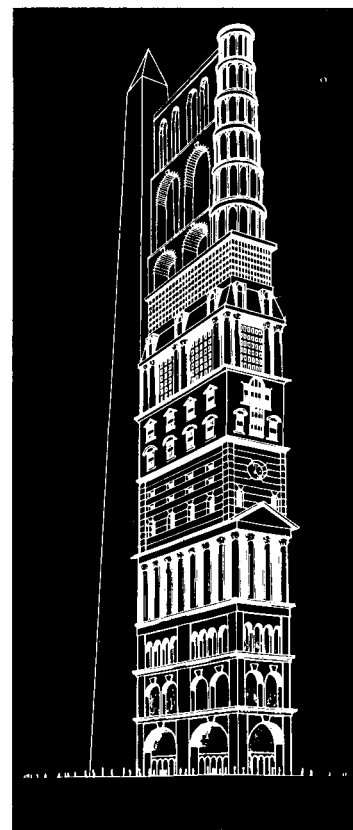
- Once put under wraps because of the fiscal austerity imposed by the Vietnam war, the grandiose proposal to extend the West Front of the Capitol emerges, ironically, when the

President has ordered a federal construction cutback to curb inflation. The Senate will consider the \$2-million appropriation to proceed with final drawings, already passed by the House.

J. George Stewart, non-Architect of the Capitol, would demolish the cracked and unsafe walls—all that remains on view of the original structure—and extend the facade as much as 88 ft. to include 100 offices, two auditoriums, two restaurants, 40 bathrooms, and a barbershop. It would eat up much of the spacious terraces planned by Olmsted, that overlook the Mall.

With the Rayburn Office Building still fresh in memories (Sept. '68 issue), few are fooled by cost estimates of \$45 million.

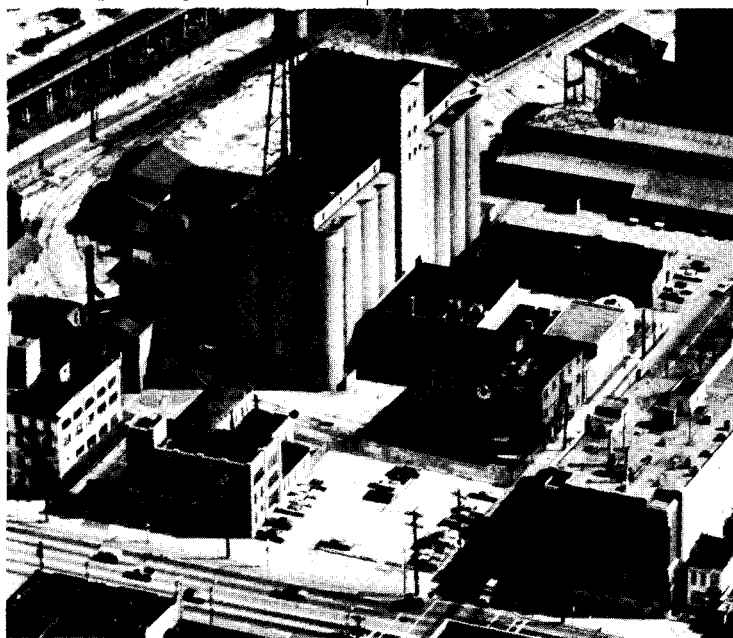
The AIA says restoration of the present walls could make them safe at a cost of only \$10 million.



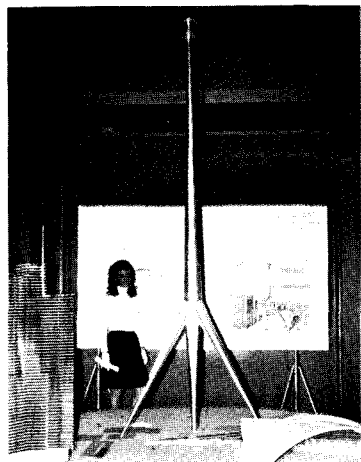
Meanwhile, one young architect, John F. Corkhill Jr., has captured the essence of the Stewart Style (see Washington Monument Extension, above).

EIFFEL IN THE SHADE

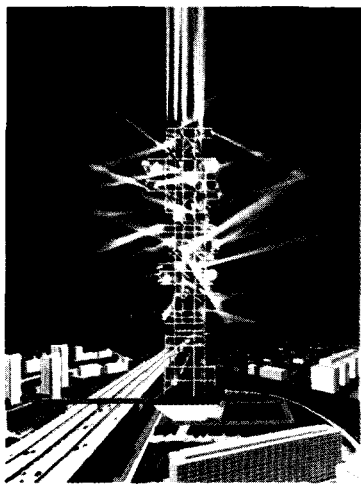
Albin Chalandon, France's minister of construction, or perhaps President Georges Pompidou himself, may have the unenviable task this winter of choosing a landmark for Paris that



would dwarf the Eiffel Tower. The idea for a tower outside the western gates of Paris, in direct line with the Arc de Triomphe, is backed by banks and private developers as a mammoth symbol for the \$1-billion project, Quartier de la Défense. There are two contenders for the prize:



- A conical steel quadripod (above), with the center pod extending to twice the Eiffel's height, was designed by Belgian Architect Andre Polak. It would cost \$20 million, and would support restaurants and shops on circular platforms at the top, plus radio and TV antennae.
- A "Cybernetic Light Tower" (below), by Architect-Sculptor Nicholas Schöffner, also a Belgian, is a variation of his "Cybernetic City" (Jan./Feb. '66 issue, page 95). It is a framework of square, steel tubes rising from a seven-level podium, which would house restaurants, meeting halls, and shops. Schöffner's "luminous and esthetic thermometer of Paris" mounts a light show that includes 3,226 blue, red, and yellow projectors; 2,000 electronic flashes; 32 reflecting propellers; and 363 curved and revolving mirrors.



NO MORE MONUMENTS

From the announcement of a national competition for the design of a mathematics facility at Yale, is this given objective:

"The campus was characterized in the past decade as the 'greatest open air museum of modern architecture on the continent.' The architecture of Louis Kahn, Eero Saarinen, Philip Johnson, Paul Rudolph, Gordon Bunshaft and others . . . mostly stands in strong contrast to the buildings and courts of the years around 1930 in the Gothic and Georgian styles which form a superbly integrated fabric unifying the central part of the campus.

"Not surprisingly, Yale, proud as it is of its modern monuments, now finds itself looking again toward the integration of new buildings into the strong existing fabric and to the provision of workable, economical, generally non-monumental space for the conduct of its teaching and its research."

IMPROVS

LIFE UNDER CONCRETE

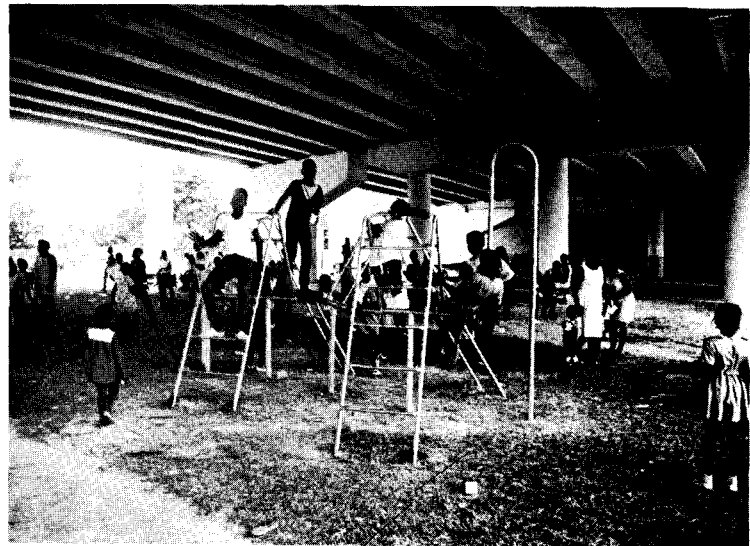
If you were speeding in or out of downtown Miami on the elevated expressway (see top right) you wouldn't be looking for the M. Athalie Range Park, or wouldn't know it if you saw it, or couldn't get there if you tried.

It is under the roadway—five acres of grass and concrete, a handful of struggling trees, a basketball court, and some play equipment. And it is the neighborhood's "turf" (right).

The neighborhood, almost entirely Negro, has reclaimed its little patch of land from the state through the tenacity of Mrs. M. Athalie Range, grandmother, funeral home owner, bank president, and the first Negro to be elected to Miami's board of commissioners.

Following snags in the state legislature over use of the land, she got the city to fill and grade the land and sow grass, and helped round up donors to provide the equipment.

Mrs. Range has already picked out two other sub-expressway sites, one for a sitting park for black senior citizens ("The elderly black man or woman is much more lonely than his white counterpart. I have studied this and



know it is true"). The other of her prospective sites would be for teen-agers with, perhaps, a skating rink, a boxing ring (to "get them out of the poolrooms").

PEOPLE

AWARDS

- Mexican Architect Pedro Ramírez Vázquez was awarded the Industrial Designers Society of America's special Award for Excellence in Design last month. The award, to "innovators and activists," has been given only three times in the past decade. (The other recipients were Constantine Doxiadis and R. Buckminster Fuller.)
- Perhaps best known for his

Museum of Anthropology in Mexico City, Ramírez Vázquez was also cited for his designs at world's fairs in Brussels, Seattle, and New York; his design directorship of the 1968 Olympic Games in Mexico City (Oct. '68 issue); his federally supported housing projects in the Republic of Mexico; and his "general influence throughout the world."

- A first group of 31 fellowships has been awarded by the Robert F. Kennedy Memorial Foundation to professionals in their mid-20s. They will complete one-year assignments in poverty programs throughout the country. Among them is Robert Lovejoy, 24, who will work with The New Thing Art and Architecture Center in Washington, D.C. (Oct. '68 issue).

OBSERVER

Walter McQuade is away this month visiting water conservation projects in Asia. In his absence, we reprint this column by Russell Baker from the New York Times.

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Land of the powerful nostrils

BY RUSSELL BAKER

WASHINGTON, Aug. 2—The poet patriot sings of America as perceived by his delicate olfactory sense after a trip along the East Coast:

I sing of America reeking, heady aromatic country of the big shoulders and the powerful nostrils. Big are your shoulders, America. Powerful are your nostrils. American nostrils can take it, the big-shouldered men boast, inhaling exhalings from a thousand smoke stacks, snuffing fumes of sulphur along the Delaware, unflinching in the sewer gases of New York.

I have smelled them all already, smelled them all, and my powerful American nostrils have stored the memories of them all. "We are the nostrils who have known Baltimore before sun-down on a summer day," they murmur, "when the sun was a red button choking on a sky solid with the smoke of oil re-

fineries and the gassy effluvia of smoldering crab shells."

Yes, powerful American nostrils, you have smelled Baltimore and lived to smell again. You have smelled the thick sensuous rot of the East River sparkling in the night, its swift flowing garbage twinkling in the miasmic liquids.

You have smelled the grease of Forty-second Street, there where it lurks trapped under the theater marquees rich with scent of old onions burned on unclean grills. And you have smelled the vented grease of pizza parlors pumped into the air of Buzzard's Bay. Long gone are the buzzards. They of the weak nostrils can't take it. American nostrils can take it.

You there, you of the big shoulders, are you an American?

Have you traveled the New Jersey Turnpike and smelled the cooked chemicals that belch from

factory pipes and coat the teeth and eyeballs with futuristic glaze? Or flared wide your nostrils to drink the diesel fumes running in thick brown rivers from the great tractor-trailers?

And have your nostrils, unflinching despite the worst that American industry can pump into them, cried out for more, cried, "This is our own, our native stench"?

I have seen men of puny nostrils struggling to resist a retch on the streets of Washington when the Southern breeze makes the night air lush with the odor of decomposing horses from the Georgetown rendering plant. And I have heard these men of the puny nostrils whine.

"America needs a deodorant," they whine.

I sing not to such men as these. My song is for those of the big nostrils, for they are the men who will stand beside you and not run when the morning air is dense with the scent of bloated fish dead of bug killer on the river's bosom.

I sing for those to whom stink is part of America's glory of America.

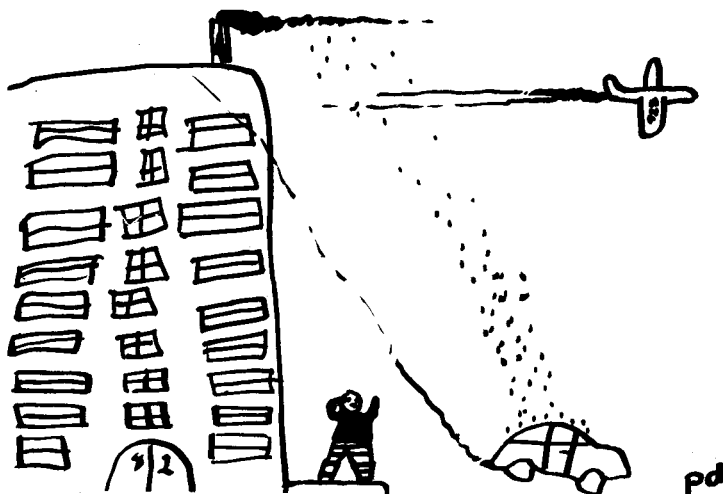
The great jets that make the air stink of kerosene, these are the glory of America. And the hundred million cars that make the roadside wildflowers stink of exhaust gasses, what of them? Could there be glory for America if there were no car garbage to smell on the wild roses?

I sing of the glory that American nostrils scent when they breathe deeply of a beautiful harbor dank with the odor of rancid hamburger drippings. Of the glory embodied in an August night when the breeze from the river carries memories of freshly loosened sink grease.

Impartially, unflinchingly

With my powerful nostrils I smell them all without flinching because they are all America reeking to the world of its glory. I smell them impartially, impartially smell the jet kerosene, smell the sulphur, smell the deadly car gas and the latest fish kill, inhale the rancid grease, smell the rotting garbage on the rivers and the burning garbage on the dumps, smell the sour creeks with their clotted sewage.

Powerful are my nostrils and precious are they to America. America needs nostrils to match its glories.



"Our native stench," as viewed by 8-year-old Peter Dixon.

PHOTOGRAPHS: Page 32 (center), Fritz Goro-LIFE magazine © Time Inc. Page 33 (bottom left), the Washington Post. Page 88 (bottom left), Billy Davis-Courier-Journal and Louisville Times. Page 89 (top left), Keystone Press Agency Inc.; (bottom left), Studio Yves Hervochon; (top right), courtesy Miami-Metro Department of Publicity and Tourism.

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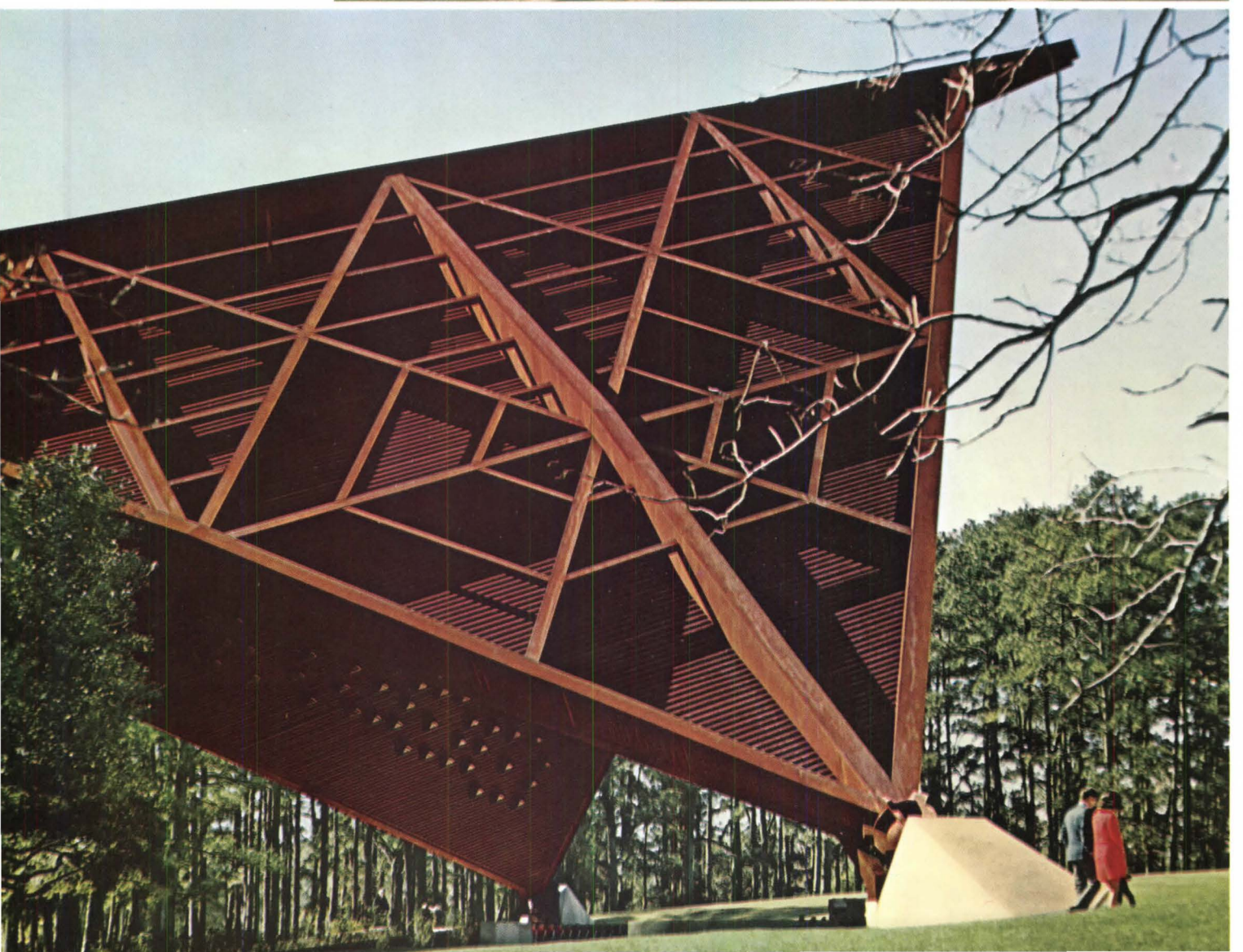
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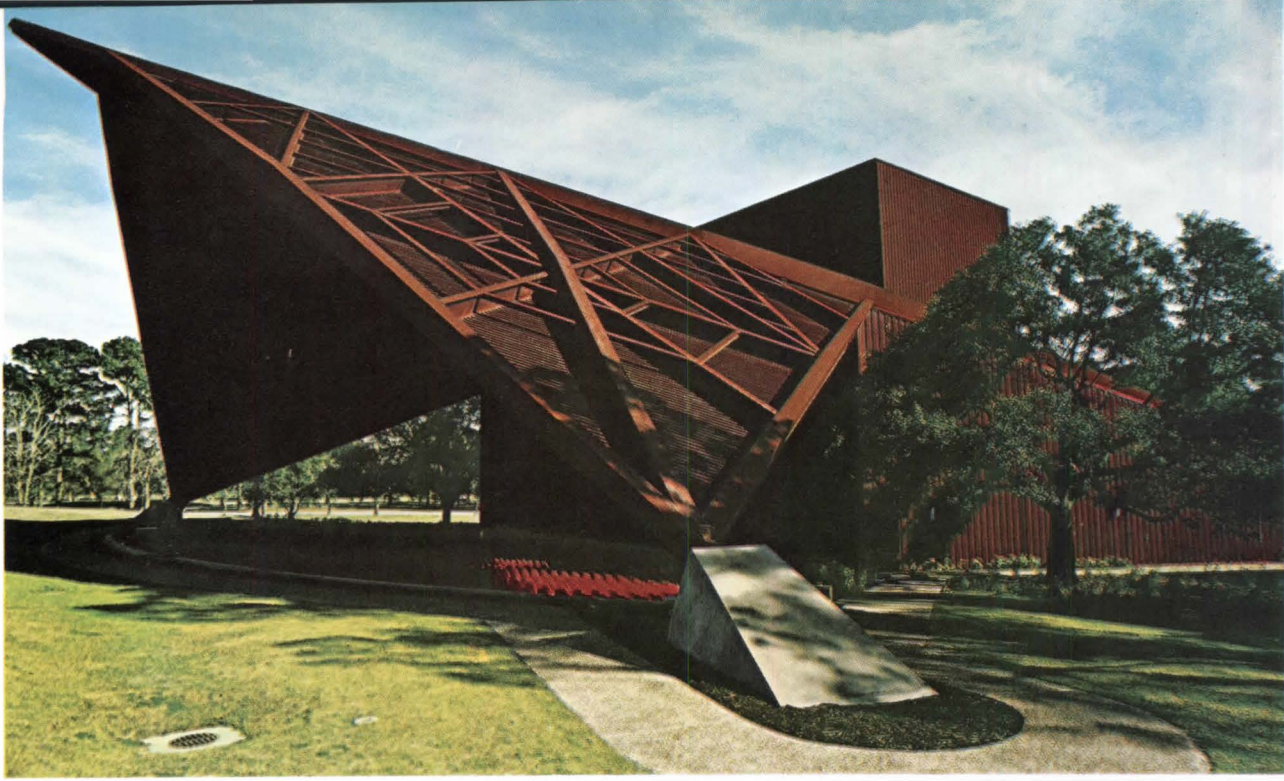
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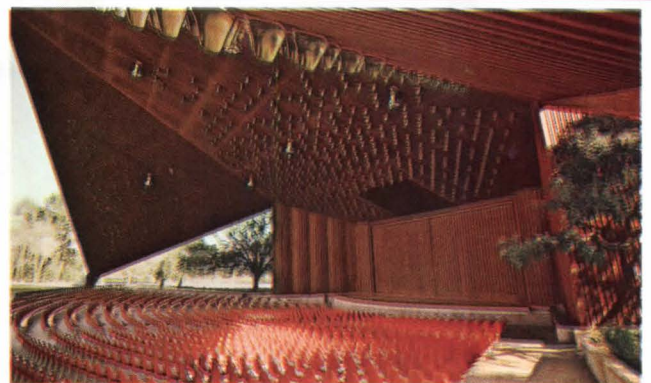
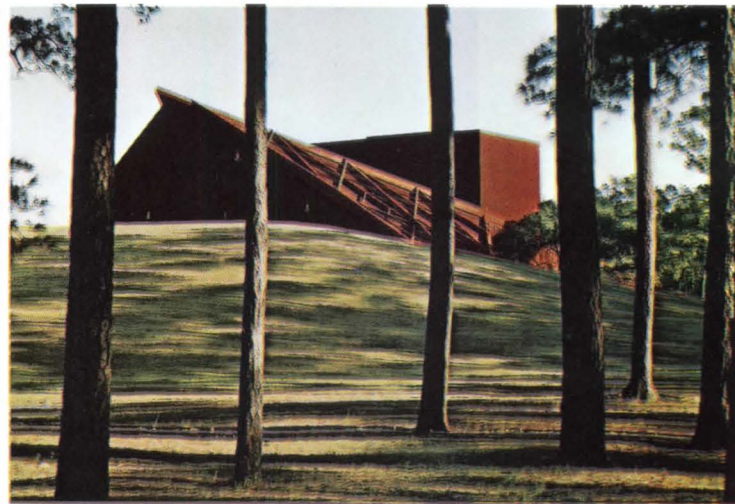
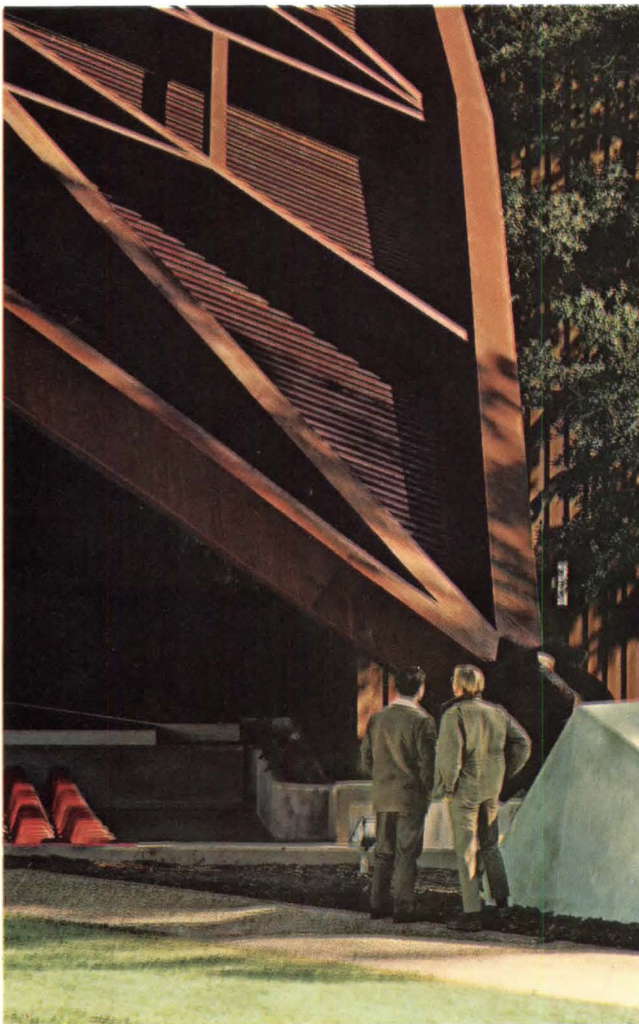


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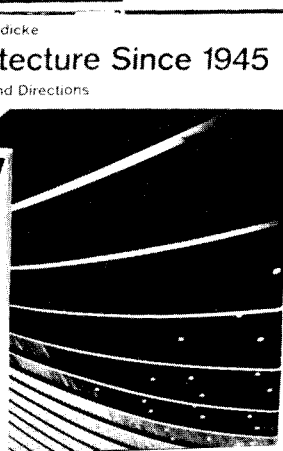
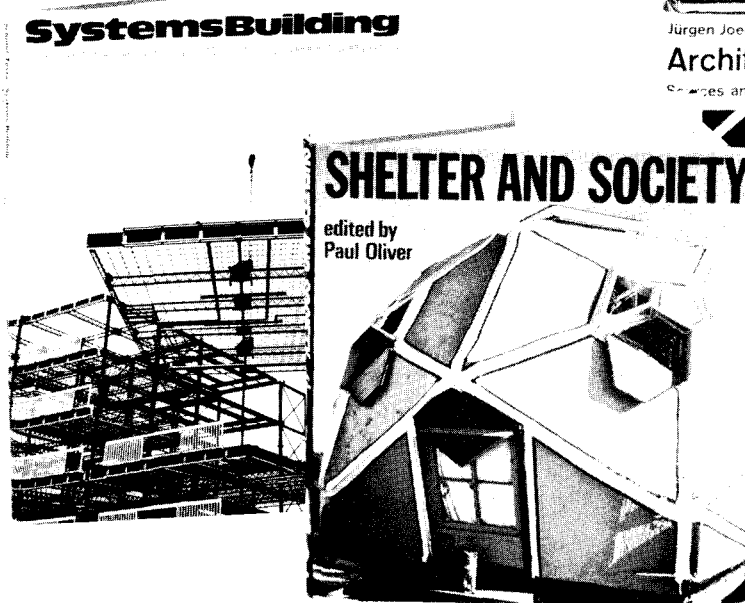
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Arcology: The City in the Image of Man by Paolo Soleri

The sprawling, essentially flat cities and suburbs that are eating up the surface of the earth are "utopian" in the negative sense that they are absurd and unworkable, asserts Paolo Soleri. He proclaims an alternative, one that is utopian in the positive sense of an ideal against which to measure the direction and extent of future change. Although the need for change is immediate, Soleri's concern embraces the possibilities of human life on this planet over a time period almost cosmic.

In the opening part of the book, Soleri presents his indictment and his alternative verbally and with prophetic fervor. After this, he proceeds to give his vision concrete form and visible reality in drawings that illustrate a new man-made earthscape: the arcologies. Soleri's drawings may be considered purposive sketches — but not final, detailed plans. Their value is in their suggestiveness and adaptability.

Soleri envisions a population implosion — the flat stretches compacted in many folds into a true solid, into a city-building — a work of total architecture, a fact of neonatural ecology: an arcology. "Man must make the metropolitan landscape in his own image: a physically compact, dense, three-dimensional, energetic bundle, not a tenuous film of organic matter." Complex, insulated from entropy, self-sustaining, miniaturized, the city and its people become as one, an involuted/evolved superorganism. Nature at large, at the doorstep and immediately accessible, returns to its "natural state," undefiled and in harmony with its own ecology.

It is certainly worth noting that while arcology contains its own implicit aesthetic, the free-flowing invention that Soleri — imagination's architect — has worked into his realizations is fantastic. **\$25.00**

The MIT Press
Massachusetts Institute of Technology
Cambridge, Massachusetts 02142

SOLERI

BOOKS

(continued from page 63)

ators at the bottom, as reported and illustrated in *The Architectural Forum* of June 1935.

- Philip Johnson's New Canaan house is cited as an example of sun control (because of its surrounding border of trees) instead of, say, the residential work of George Fred Keck or that of O'Neil Ford—or for that matter—Johnson's earlier house in Cambridge, which employed a single, south-facing window wall.

Other topics left out altogether despite their obvious bearing on the book's theme, include:

- Panel heating, both in Britain (Liverpool Cathedral and the U.S. (F.L.L.W.)). Also more recent instantaneous radiant ("side-walk") heating.
- The heat pump (!). Also, heat recovery and heat storage schemes in general, which are legion.
- Air-cooled and now water-cooled lighting fixtures (and water-cooled venetian blinds).
- Heat absorbing, darkening, and heat-reflecting glass.
- Electric heating (!) and the single-energy approach to large building projects.
- "Windowless" buildings.
- The problem of heat dissipation in general—which monopolizes the uppermost level of most tall modern buildings and cries out for architectural recognition in buildings of all shapes and sizes.

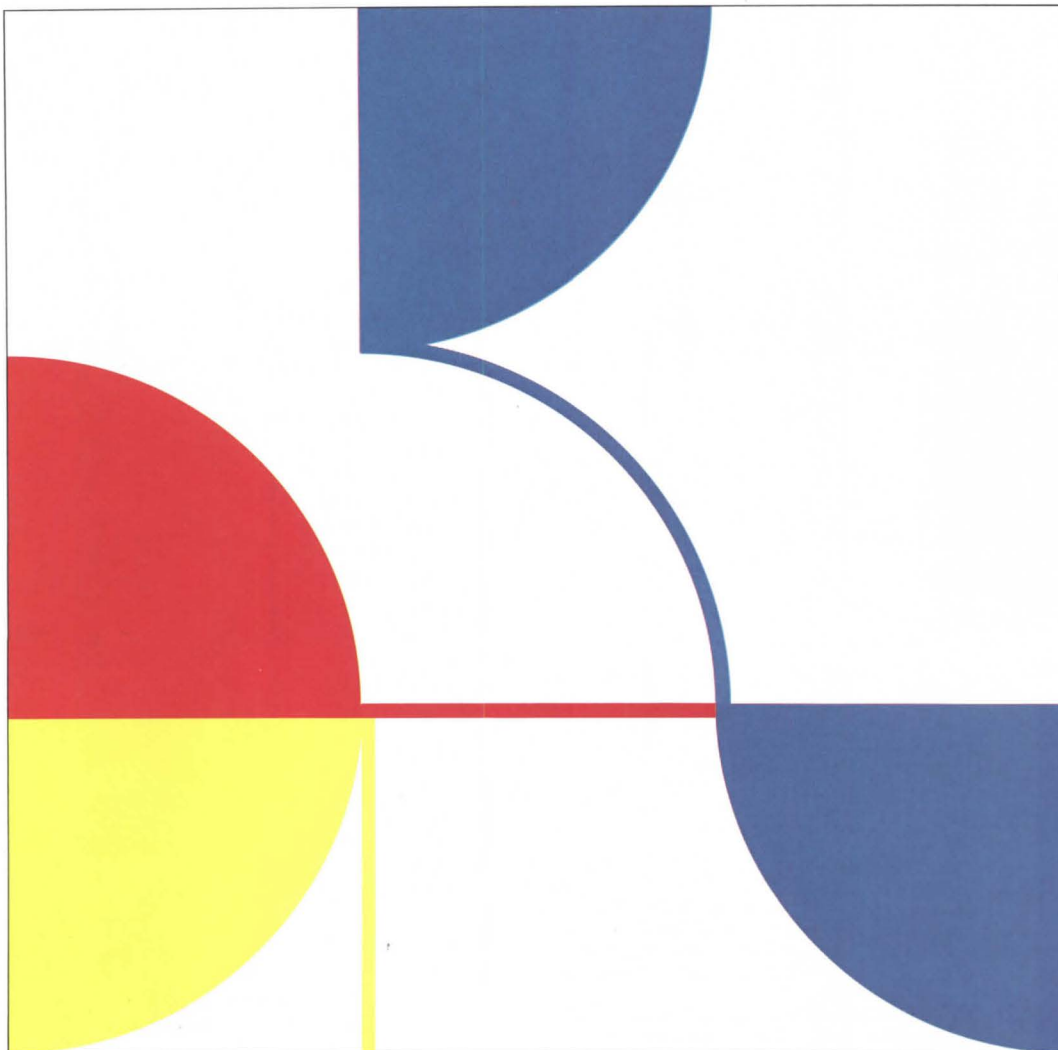
These omissions simply emphasize that Banham has struck a rich lode and mined only part of it. His special strength lies in the development of broad generalities, such as his distinction between the traditional "massive non-power" approach to building—in which the building mass absorbs and releases heat—and the modern, lightweight structure (a necessary characteristic of multistory buildings) which relies on the injection and extraction of heat-energy for thermal

stability. More grandly, he asserts that we are moving out of an era of "forms assembled in light" à la Le Corbusier and into one of "light assembled in forms"—a conception he borrows from Tom Wolfe's comparison of Las Vegas and the Palace of Versailles. And he becomes almost inspired in pointing out that "architects are at the mercy of their first sketches, and those sketches normally represent forms viewed in natural daylight, or some form of abstract universal light such as only exists in architectural sketches." Real light is thus ordinarily one of the first casualties of the process of simplification demanded by this particular process of imaginative creation.

A detail which cannot be left unchallenged is the author's continual references to "foul" and "vitiated" air. These Victorian bogies had some substance, as Banham correctly indicates, in rooms lit by gasoliers, especially before the tardy advent of the Welsbach mantle. But they ceased to have meaning with Flugge's definitive experiments of 1905. Banham mentions these experiments but fails to quote Flugge's unequivocal declaration that the feelings of drowsiness, headaches, and so on experienced in crowded, poorly ventilated rooms, and the feeling of relief experienced when emerging from such rooms into the open air, are the result solely of differences in the physical properties of the air (temperature and humidity) and in no wise result from differences in its chemical properties (lack of oxygen, excess carbon dioxide or Pottenkofer's imaginary "anthropotoxins"). Banham seems unaware of the highly important report of the New York State Commission (1923) which laid the ghost of "vitiated" air and established the thermal theory of ventilation beyond doubt.

This, and a certain naivete regarding present day air conditioning practices are the book's major weaknesses; its great strength lies in its assertion of the importance of environmental controls in the development of contemporary architecture, and its pioneering if somewhat spotty documentation of its thesis. At a time when this influence is likely to become even more important, the book is most welcome. Hopefully, it will be followed by others of equal merit.

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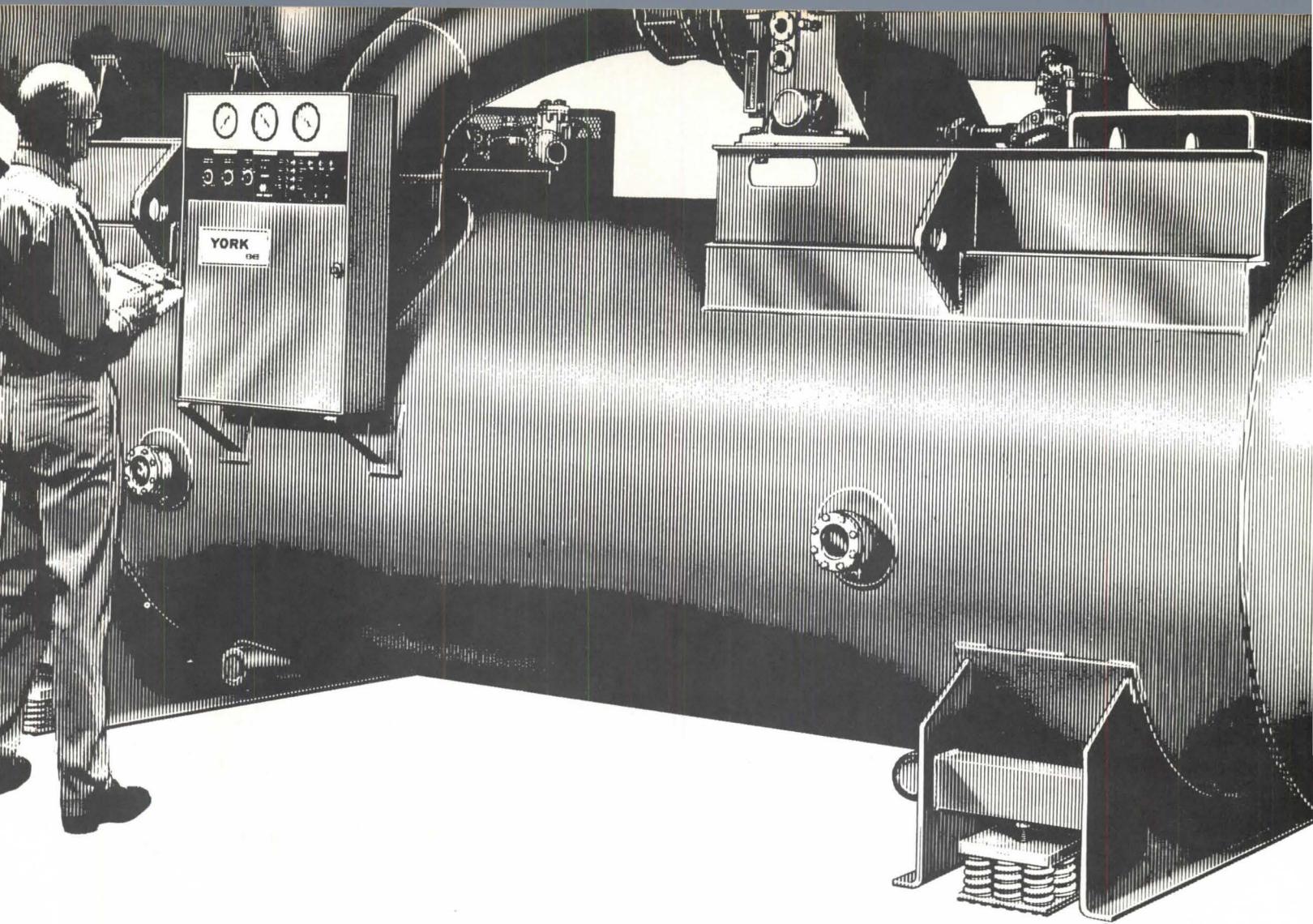


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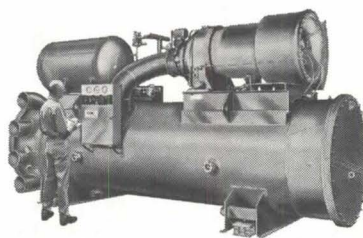
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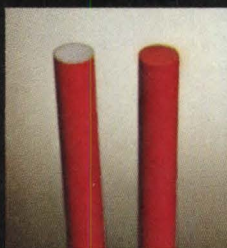


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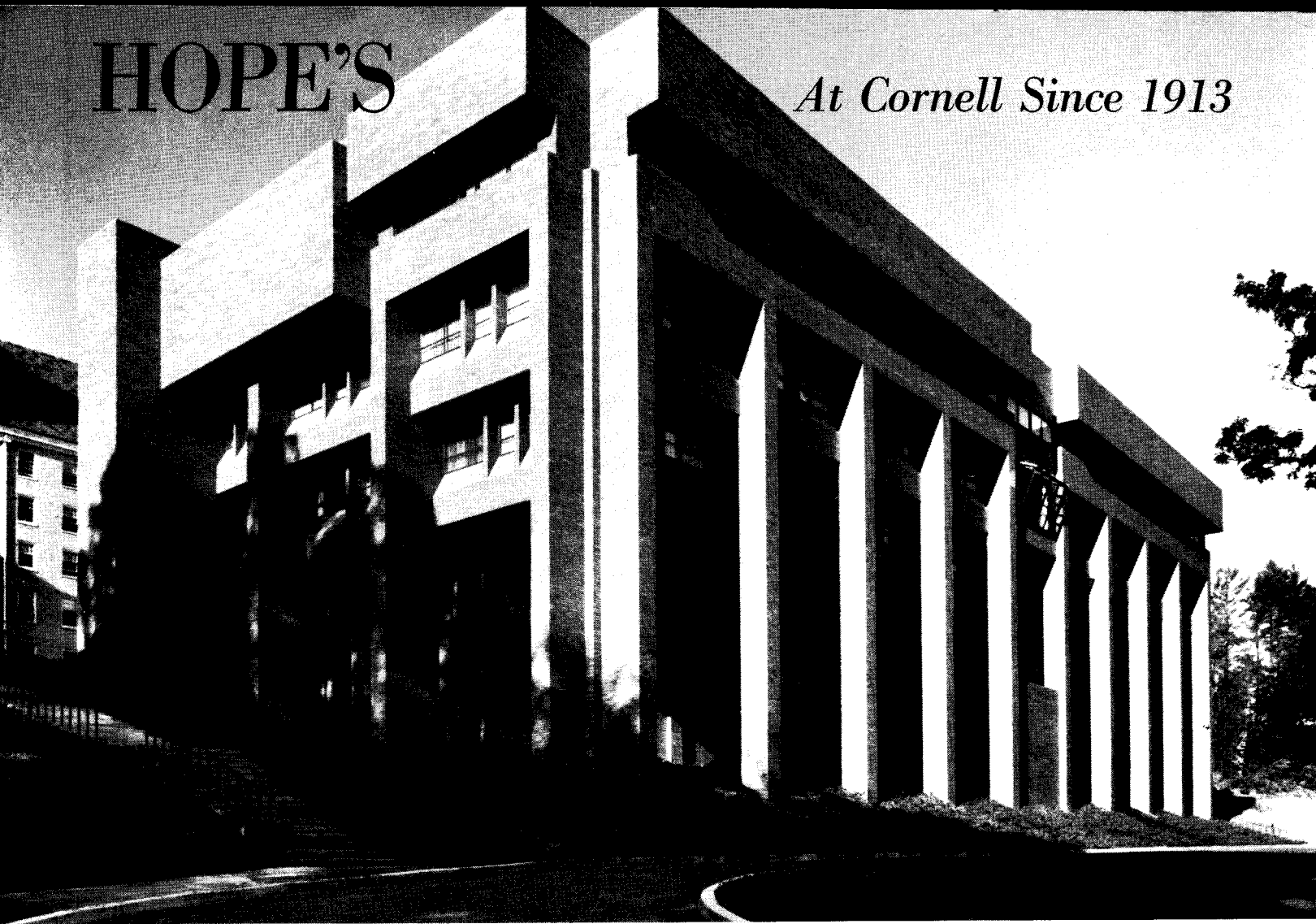


Photo by George Cserna

1966 Home Economics Building, Cornell University, Ithaca, New York

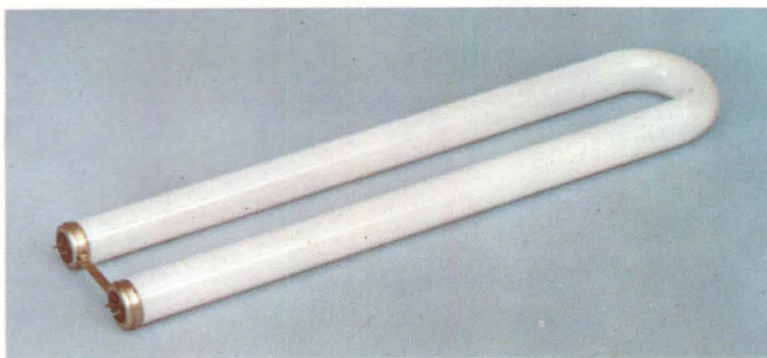
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<i>Architect: W. H. Miller</i> | 1954 Willard Straight Hall (Student Union) (Addition)
<i>Architect: Searle Von Storch</i> |
| 1923 Boldt Hall (Men's Residence)
<i>Architects: Day & Klauder</i> | 1954 Veterinary College
<i>Architect: C. J. White, State Architect</i> |
| 1925 Willard Straight Hall
<i>Architects: Delano & Aldrich</i> | 1954 Aeronautical Laboratory (Buffalo, New York)
<i>Architect: Jacob Fruchtbaum</i> |
| 1928 Boldt Tower (Men's Residence)
<i>Architect: Charles Z. Klauder</i> | 1959 Poultry Research
<i>Architect: New York State Department of Public Works</i> |
| 1929 Balch Halls (Women's Residence)
<i>Architect: Frederick L. Ackerman</i> | 1962 Charles Evans Hughes Hall (Law Student Residence)
<i>Architects: Eggers & Higgins</i> |
| 1946 Savage Hall (School of Nutrition)
<i>Architects: Skidmore, Owings & Merrill</i> | 1963 Clark Hall (Physical Sciences)
<i>Architect: Jacob Fruchtbaum</i> |
| 1950 Anabel Taylor Hall (Interfaith Center)
<i>Architects: Starrett, VanVleck & Eggers & Higgins</i> | 1966 Martha Van Rensselaer Hall (Home Economics)
<i>Architect: Ulrich Franzen</i> |
| 1953 Riley • Robb Hall (Agricultural Engineering)
<i>Architect: New York State Department of Public Works</i> | |

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Now there's a way to put all the exciting advantages of 40 watt U-tube fluorescent lamps to work in a new decorative 2' modular. U-LUME from Benjamin.

Benjamin engineers designed U-LUME with adaptability and appearance in mind. They began with a 20-gauge steel housing that fulfills UL requirements for low-density ceilings—

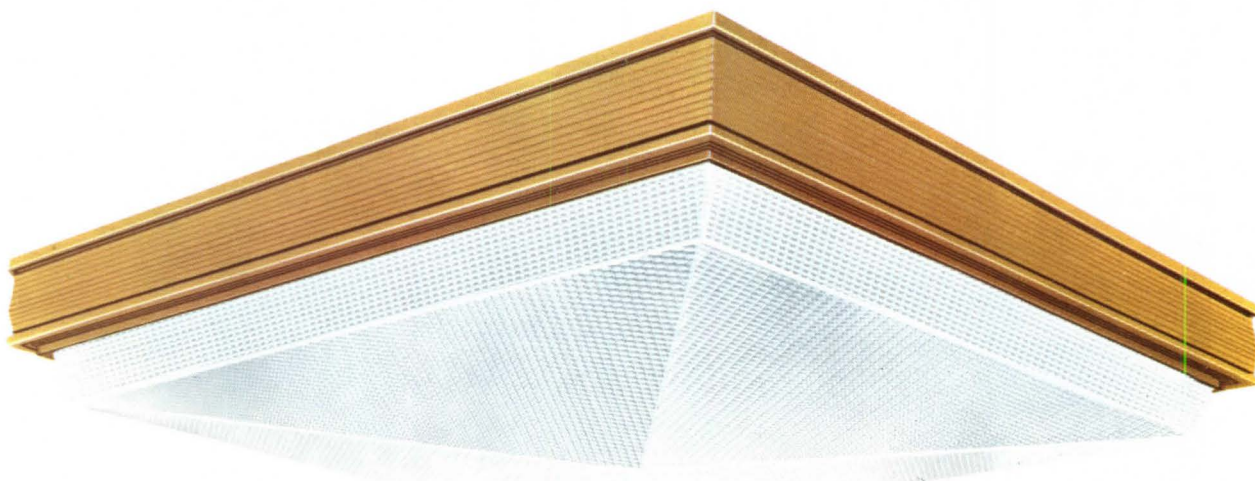
one that takes any make of 40W U-lamp.

They trimmed it with stylish-extruded aluminum, finished in soft gold or brown suede (or standard white). Then they added an optional, decorative, snap-in panel of impact-resistant material to further enhance the appearance.

Finally, HOLOPHANE was commis-

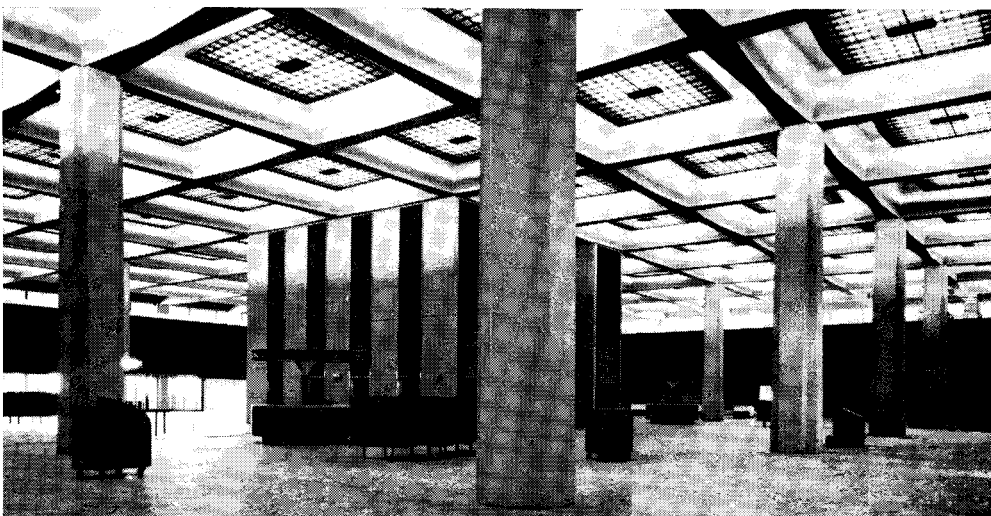
sioned to design an optically perfect Controlens for the modular. U-LUME is a brilliant idea wherever decorative modular lighting is needed. And best of all, U-LUME can be shipped complete with lamps. For more information about U-LUME, write Benjamin Products, Thomas Industries Inc., 207 E. Broadway, Louisville, Kentucky 40202.

deserves another



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It had to be 100% waterproof, *and it is.*



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ENGINEERS: Engineers of the Southwest
AUTO-GARD APPLICATOR: Gulf Waterproofing Co., Inc., Houston, Texas

Take the case of the 300,000 square foot, third floor parking area at the new Houston Intercontinental Airport, for example.

It has to be 100% waterproof because it covers all the passenger terminal area and air line ticketing facilities.

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We're proud to say Auto-Gard is performing



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They are also impressive, attractive, functional, economical. You design Smith Walls to present the image and fulfill the requirements of your specific building project.

Pick any Smith panel. Specify the exterior panel profile most suitable to your design from the wide selection available. Choose the protective coating in the exact color you have in mind. Leave the rest to us.

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General Electric Company Plant, Oklahoma City, Okla.

Architects: Benham-Blair & Associates, Oklahoma City, Okla.

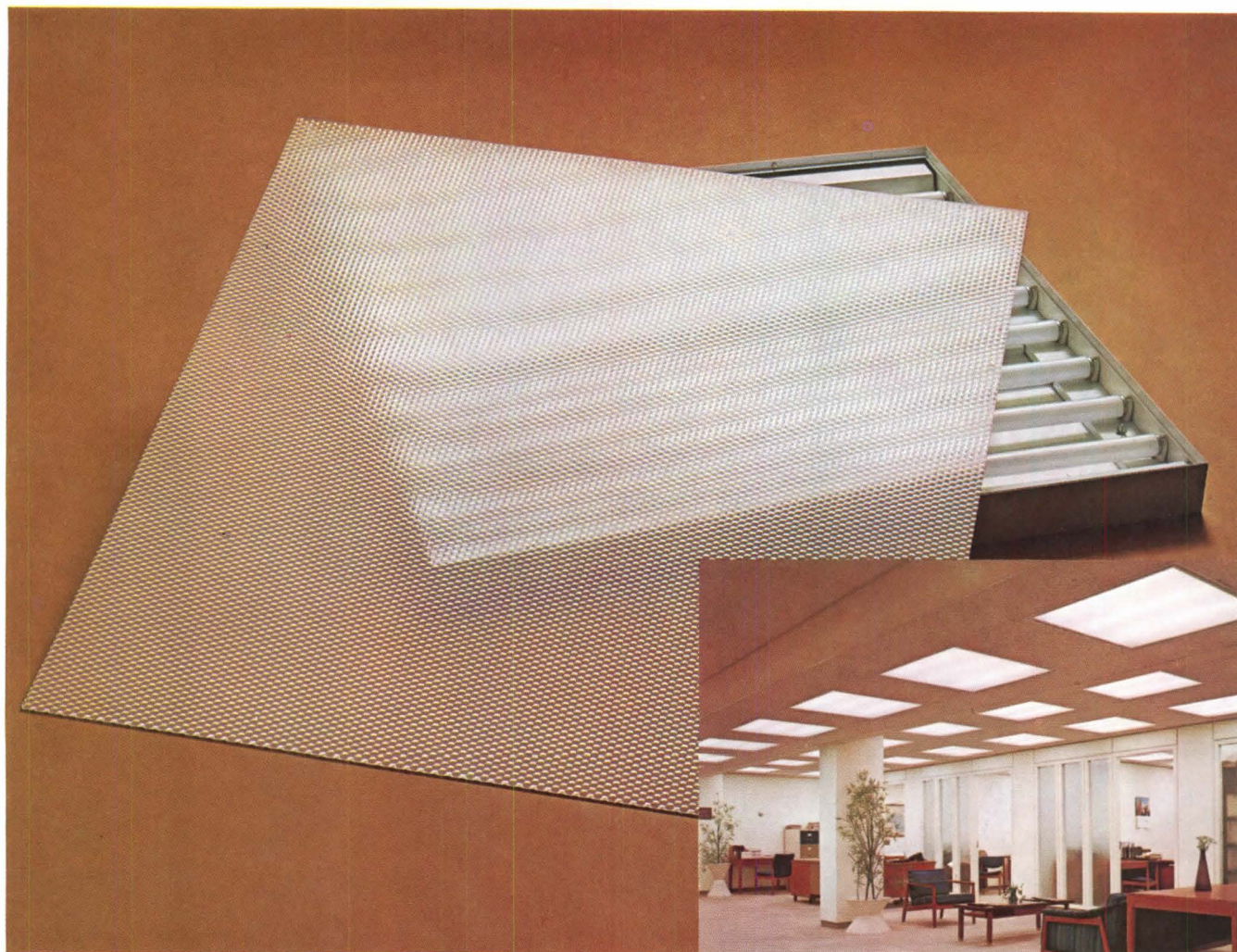
General Contractor: Manhattan Construction Company, Oklahoma City, Okla.

Smith C-Panel, 1½" insulation, aluminum exterior finished in Kynar II. Ribwall profile on fascia. The main wall consists of Contourwall profile panels.

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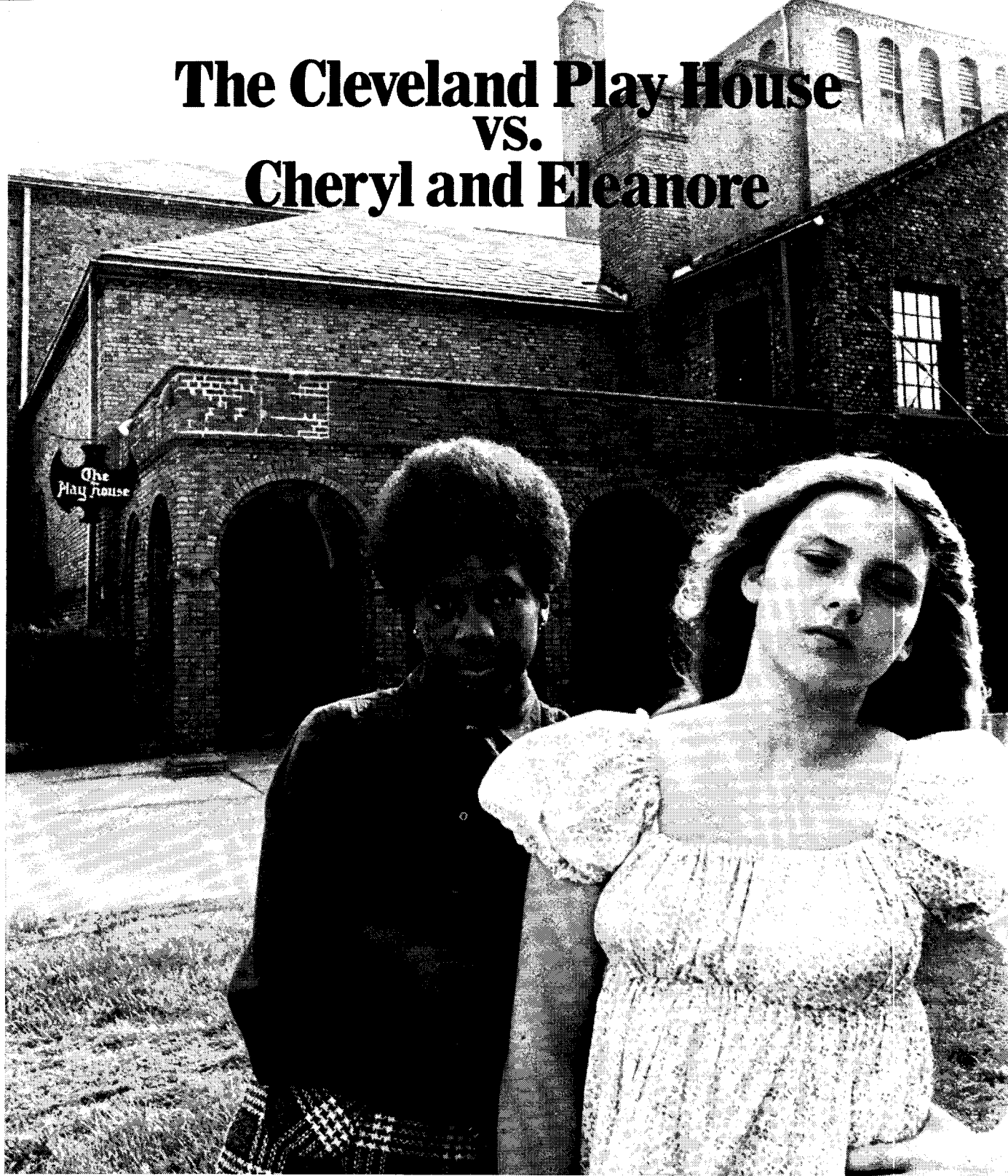
PLEXIGLAS is code-approved nationwide as a lighting material. Write for our technical brochure and the names of manufacturers who use PLEXIGLAS in their lighting equipment.

Plexiglas is a trademark Reg. U.S. Pat. Off.

Plexiglas is made only by



The Cleveland Play House VS. Cheryl and Eleanore



The first professional resident theater in the U.S. International recognition. Critics' raves. The Cleveland Play House takes a back seat to no other.

How did it get there? It wasn't easy. After a faltering start, it was miraculously saved from total collapse by a last-minute reorganization. And only in 1927 fell heir to a permanent home. Later, the Play House acquired a beautiful old church a few blocks away. This impressive structure was converted into a theater-in-the-round, a dramatic innovation in theater design. The cost? Over a million dollars. And that was a lot of money in those days. Today, box-office receipts cover most of the operating costs.

But enthusiastic groups and individuals are always ready to make up the rest. So the future of the Play House is pretty well assured.

Wouldn't it be nice if this sort of enthusiasm could be lavished—by other groups with time, talent, and energy—on the future of kids like Cheryl Taylor and Eleanore Gerhardt? Kids who exist in the slums which literally surround the Play House. And even though they live in the very shadow of the Play House it's not likely they'll ever get inside. Unless somebody does something.

We are trying to stimulate more active interest in youngsters like these among people like you—architects who must be

concerned about the future. That's why we've established the Eaton Yale & Towne Urban Design Fellowship. The award, administered by the A.I.A., provides for one year of graduate study in urban design at an American university and a follow-up tour of urban developments abroad.

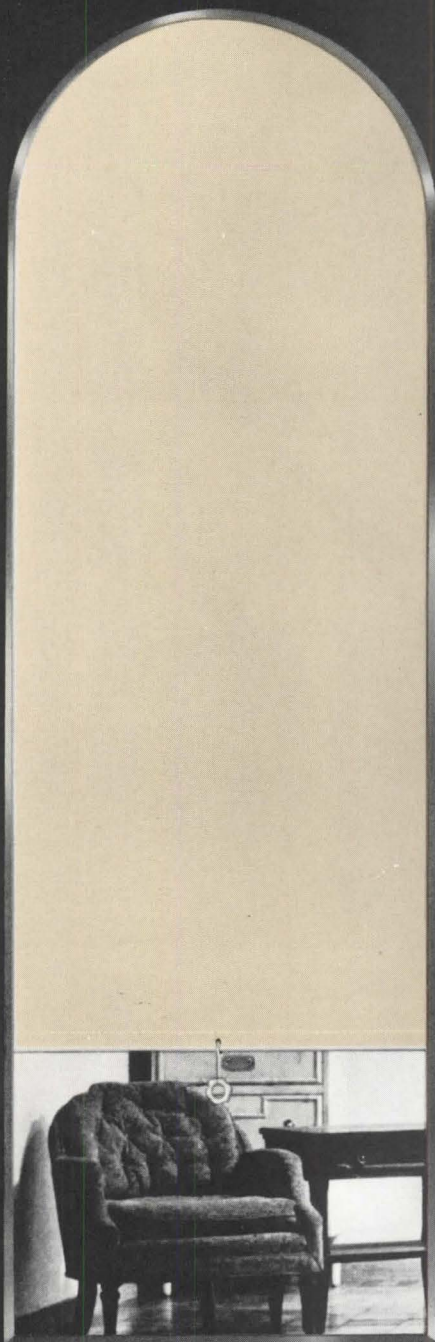
Bravo to Cleveland's living theatre! But as long as we're saving the past, shouldn't we save the future? The Cheryls and Eleanores.

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(and the new solution)



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This is Amerada's new
FADE-SAFE glass



Store owners usually resort to color-distorting plastic shades which are hard to see through.

Your carpets, drapes, furniture and other expensive furnishings can now be protected from harmful ultraviolet rays by Amerada's new FADE-SAFE glass.

FADE-SAFE is a clear laminated glass that allows complete, untinted visibility. Its secret is a thin, transparent laminate that filters out damaging UV rays but admits full sunlight.

Within the most damaging light wavelength region, FADE-SAFE excludes all but 1% of the UV rays. It actually reduces the rate of ultraviolet-caused fade 52 times better

than 1/4" plate glass within this region.

As an additional benefit, FADE-SAFE can be combined with Amerada "Secur-Lite" burglar resistant glass to protect against riots and vandalism. It is also available with Amerada "Acousta-Pane" glass to reduce aggravating outside noise.

FADE-SAFE is now available in a full range of sizes and will fit most standard window frames. Write for details on how FADE-SAFE is the solution to your UV fading problem.

READERS SERVICE FILE

PRODUCT LITERATURE

To order material described, circle indicated number on self-addressed Reader Service Card, facing page 112.

DOORS/WINDOWS 601

12-pg brochure designed as guide to architectural glass products, contains comparative charts and graphs. Amerada Glass Co. On Reader's Service Card, circle 101.

USA Standard specs: Aluminum Windows, Sliding Glass Doors; Selection Guide; Films. Architectural Aluminum Mfrs. Assn. On Reader's Service Card, circle 102.

Catalog includes technical information on LOF glass; includes Vari-Tran® and Vigilpane® SA 68. Libbey-Owens-Ford Co. On Reader's Service Card, circle 103.

Literature contains general information on Pilkington Glass Products. Pilkington Bros., Ltd. On Reader's Service Card, circle 104.

FLOORING 603

Weberfloor. Unique access flooring being used in many jobs with few, if any, special-purpose requirements. 12-pg illustrated brochure details construction and economic benefits. Weber Architectural Prods. Div. of Kidde. On Reader's Service Card, circle 105.

FLOOR COVERING 604

"Successful Contract Carpeting with DuPont Fibers," a practical guide for the specifier seeking fiber knowledge color guidance before making carpet decision. E. I. DuPont de Nemours & Co., Inc. On Reader's Service Card, circle 106.

Powerhouse by World Carpets. A 5/64 gauge, level loop quality with 100% solution dyed Acrilan acrylic pile. 10 heather colorations. Sample swatch, descriptive information. World Carpets. On Reader's Service Card, circle 107.

FURNISHINGS 605

New Sundberg Chair. Full line. Durable cast nylon. Many colors, mounting options, specifications. American Seating Co. On Reader's Service Card, circle 108.

Action Office II. Modular components for open planning. Complete literature. Herman Miller, Inc. On Reader's Service Card, circle 109.

Traditional 700 Series. 24-pg color catalog, complete line of Chippendale desks, credenzas, bookcases and correlated seating. Myrtle Desk Co. On Reader's Service Card, circle 110.

HARDWARE 606

24-pg fully illustrated booklet gives information on choosing correct type of hardware for every type of entrance. Kawneer/Amox Co. On Reader's Service Card, circle 111.

"Electra by Kirsch," 12-pg full-color brochure with complete technical information on linear motor-powered drapery traverse rod. Kirsch Co. On Reader's Service Card, circle 112.

Fire control door devices—8-pg brochure contains illustrations and diagrams of complete line of fire control equipment for doors. Norton Door Closer Div. Eaton Yale & Towne, Inc. On Reader's Service Card, circle 113.

HEATING/ AIR CONDITIONING 607

"Instant Warming," 4-pg brochure on fan coil air conditioning. Carrier Air Conditioning Co. On Reader's Service Card, circle 114.

4-pg 2-color condensed catalog. Dimensions and specs on all models of Perfection Infra-Red Heaters. Hupp Inc. On Reader's Service Card, circle 115.

Spec data hermetic and open Turbo-pak chiller, 670 to 1030-ton capacity range. York Corp. Div. of Borg-Warner Corp. On Reader's Service Card, circle 116.

INSULATION 608

4-pg 2-color folder on "Weather Chamber Windows" weatherproofing system combining Neoprene stripping with pressure equalization. Republic Steel Corp. Mfg. Div. On Reader's Service Card, circle 117.

LIGHTING 610

Plexiglas for Lighting—44-pg booklet gives complete optical-physical data on Plexiglas® acrylic plastic for indoor and outdoor lenses and diffusers. Rohm & Haas Co. On Reader's Service Card, circle 118.

AREALUME CATALOGS: Ball-light post-tops, pendants, brackets for plazas, malls, parking areas. Stonco Lighting Div. of Keene Corp. On Reader's Service Card, circle 119.

MASONRY 611

NON-SHRINK GROUT: 20-pg catalog gives data, installation hints, specifying information on non-shrink grouts, mortars and concrete. Master Builders. On Reader's Service Card, circle 120.

CONCRETE ADMIXTURES: 16-pg technical catalog listing and giving data on line of water-reducing admixtures, curing agents, and other concrete treatments. Master Builders. On Reader's Service Card, circle 121.

OPERABLE WALLS 613

Catalog A-600; 16-pg 4-color detailing maximum room flexibility for schools, colleges, churches and institutions. Richards-Wilcox Mfg. Co. On Reader's Service Card, circle 122.

PLUMBING EQUIPMENT 615

12-pg 2-color catalog shows American's complete line of laundry machinery. American Laundry Machinery Industries. On Reader's Service Card, circle 123.

32-pg color catalog #168; drinking fountains, water coolers—includes specs, drawings. Haws Drinking Faucet Co. On Reader's Service Card, circle 124.

"The faucet that turns people on, with style, Moen." 12-pg catalog full line single lever kitchen, bath valves. Moen Div. of Standard Screw Co. On Reader's Service Card, circle 125.

New 16-pg brochure for archs., engineers and spec writers on proper design, arrangement and mechanical

facilities in coin-op laundry rooms for hi-rise apartments and dorms. Speed Queen Div. of McGraw-Edison. On Reader's Service Card, circle 126.

New 1969 32-pg color catalog illustrates electric water coolers, drinking fountains, accessories; incorporates drawings for units. The Halsey W. Taylor Co. On Reader's Service Card, circle 127.

ROOFING/SIDING 616

12-pg brochure gives complete information and specs on Gold-Line, a 2-ply gravel surface asbestos built-up roof. Johns-Manville Corp. On Reader's Service Card, circle 128.

4-pg brochure, full color, shows make-up of the J-M Townsend shingle and colors in magnified granules, includes arch. specs. Johns-Manville Corp. On Reader's Service Card, circle 129.

WALLS/LAMINATES/ PARTITIONS

1968 laminated solid color series. Easily filed product sampler features '68 solid shades. Formica Corp. On Reader's Service Card, circle 130.

General Electric Co. features its complete line of trend-setting solids, woodgrains and abstract patterns in Textolite® decorative surfacing in full-color, swatched catalog. GE, Laminated Products Dept. On Reader's Service Card, circle 131.

Full color 16-pg catalog on Demountable Partitions. All heights. Technical information. National Gypsum Co. On Reader's Service Card, circle 132.

Metal Wall Panels, including new Foamwall. 20-pg catalog includes complete specs with color photos of walls in place. Elwin G. Smith & Co., Inc. On Reader's Service Card, circle 133.

PROFESSIONAL SERVICES 619

New 22-pg illustrated catalog of books on urban planning, technical books, profiles of architects, and surveys of specialized types of architecture. Praeger Publishers. On Reader's Service Card, circle 134.

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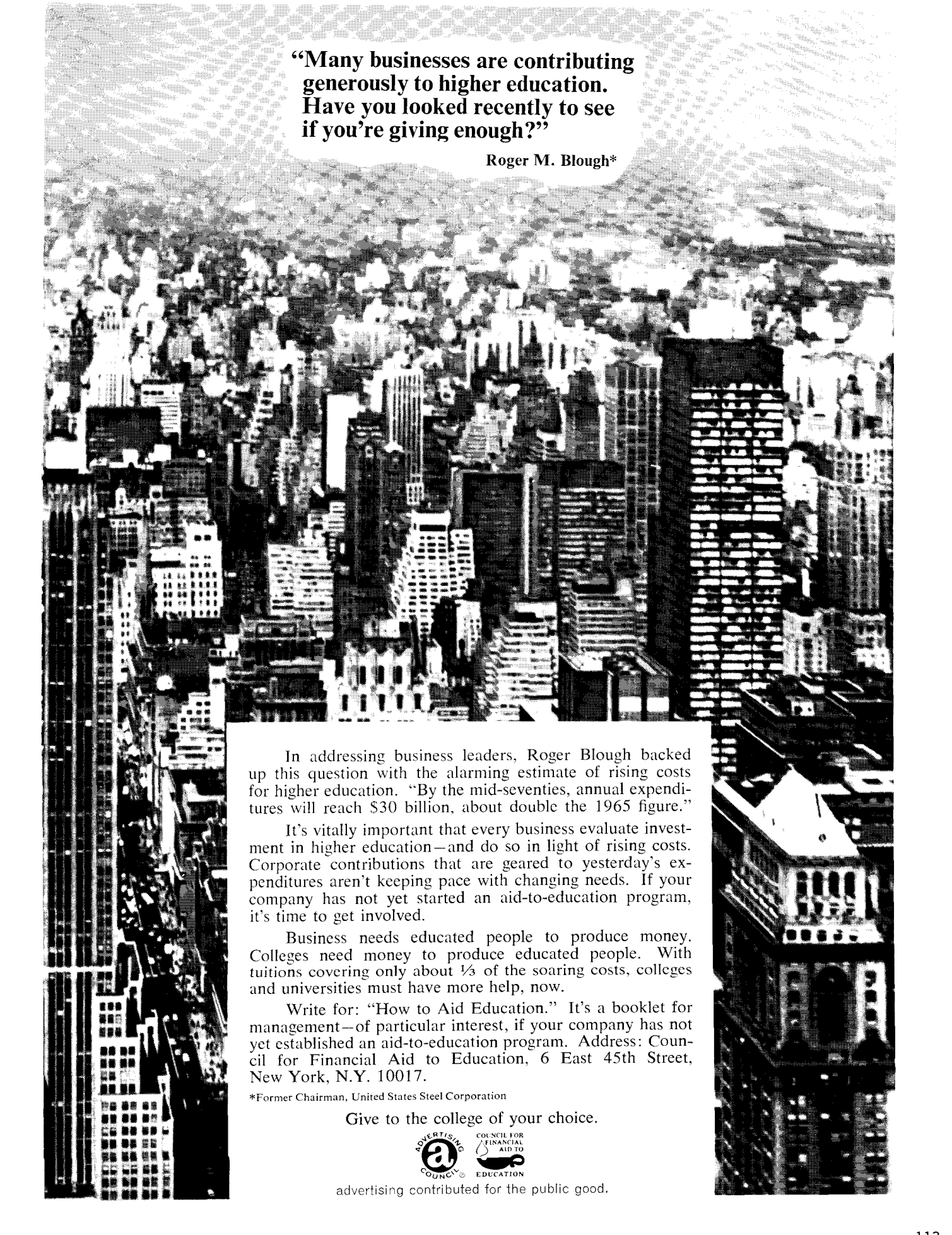
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Roger M. Blough*

In addressing business leaders, Roger Blough backed up this question with the alarming estimate of rising costs for higher education. "By the mid-seventies, annual expenditures will reach \$30 billion, about double the 1965 figure."

It's vitally important that every business evaluate investment in higher education—and do so in light of rising costs. Corporate contributions that are geared to yesterday's expenditures aren't keeping pace with changing needs. If your company has not yet started an aid-to-education program, it's time to get involved.

Business needs educated people to produce money. Colleges need money to produce educated people. With tuitions covering only about 1/3 of the soaring costs, colleges and universities must have more help, now.

Write for: "How to Aid Education." It's a booklet for management—of particular interest, if your company has not yet established an aid-to-education program. Address: Council for Financial Aid to Education, 6 East 45th Street, New York, N.Y. 10017.

*Former Chairman, United States Steel Corporation

Give to the college of your choice.



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In its Kansas City warehouse, Armco Steel can store wire products for years. Without worrying about condensation. Because Perfection-Schwank Gas infra-red heaters keep the stored wire dry.

That means everything looks as good as it did the day it was made.

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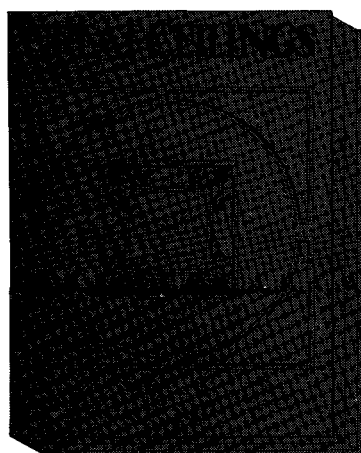
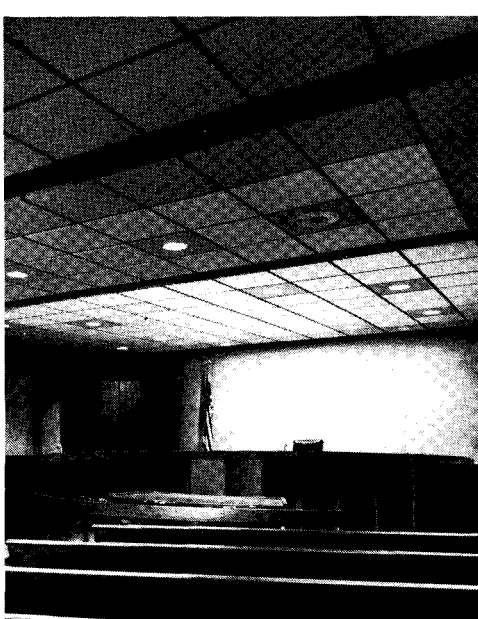


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the natural energy choice.**

**Air conditioning
that puts no ceiling
on imagination***



*Bound to entice the imagination—Carrier's new Architect's Portfolio includes a dozen of the world's "Great Ceilings" suitable for framing.

Carrier's Moduline® variable volume air terminals are designed to give you freedom of design . . . to enhance rather than hinder your personal hallmark.

A showcase of what architects have accomplished in ceiling design with the Carrier Moduline is now available in a new portfolio entitled "Great Ceilings."

This handsomely bound reference book includes a variety of installations such as a school, hospital, municipal building, service center, and office buildings. Some are completely new, others are add-ons and/or renovations.

A new 7-minute companion film on the Carrier Moduline is also available for private showings. It clearly describes the unique features of this new unit and illustrates a variety of design-provoking ceilings. The name is the same, "Great Ceilings."

Registered architects who write in on their letterheads will receive a copy of the "Great Ceilings" portfolio and may also schedule a showing of the film.

Write today to William Heck, Product Manager, Carrier Air Conditioning Company, Carrier Parkway, Syracuse, New York 13201.



Now, a third kind of office furniture to help you create a new kind of environment.

The other two, of course, are wood and metal. We call ours Chromattecs . . . furniture that combines the best of both . . . furniture that helps you create dramatic new office environments.

You can see some of it here — flat Matte acrylics, Ember Chrome that's as warm as a hearthside, hand-rubbed woods, wonderful responsive fabrics.

For complete details, write Steelcase Inc., Department A, Grand Rapids, Michigan 49501, or visit one of our showrooms listed below.



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For fine-tuning its power to the environment, a plus or minus 25 percent spring power adjustment.

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For easy application, non-handed installation. Just specify regular arm, parallel arm, or top-jamb mounting.

7700

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