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PRESERVING THE PROFESSION

Forum: After reading your article "The Case for Specialized Registration" [March], I hereby offer you my comments on the matter.

The architect's registration law was made to insure safety and good design. This is to protect the public from loss of life, and to render healthy and pleasant surroundings for the public to live in.

All other factors, such as business administration, computerized techniques, cost-accounting, law, etc., are only of value to the architectural firm, or, for that matter, to any professional or business firm, to give that firm an advantage in competing with another firm. Any architect can hire experts to do such work, if he wishes to do so, but it is not necessary to increase the safety and beauty of a building. It is my opinion that the architect's registration law should only be focused on the know-how of design and construction techniques. All other knowledge is optional, even political science, insurance (except what is needed to protect the public during construction), biology (except for rodent and termite control), and many more categories which were not even mentioned in the article.

If the original requirements of this examination are changed, the value of design and construction techniques will deteriorate. The smartest manipulator with a little knowledge of building will hire architects and engineers who will make the building safe, but he will control the planning, and design of the building, and the architectural profession will change into an architectural trade.

THE IMAGE MAKERS

Forum: On March 19, the New York Chapter of the AIA sponsored a Campus Planning Conference. The aim was to exchange creative ideas between university practitioners and students. There was one factor that promised more substantial results than the usual platform generalities and irrelevant floor responses. This was the participation of design-oriented architects. One of the speakers was Walter Netsch who had just published a new Field Theory of campus design, tried out on three college sites. In the audience were Ulrich Franzen, Victor Lundy, Ralph Myller, Jan Pokorny, Daniel Schwartzman, and others who have made their reputation by giving designed form to the public image.

And what happened? Netsch did not breathe a word about his system-approach, the architects of Stony Brook, Cornell, Connecticut schools sat there mute as Buddhas, leaving it to a single panelist to defend the historical role of designed over minimum environment. The usual minority of social protesters pelted the university scapegoat with the worn clichés of racism and elitism, and hours went by with personal gripes non-sequiturs, reducing the burning issue of the educational matrix to the smallest parochial level. Not one of the architects present felt an obligation to answer the two searching questions coming from a student with a conceptual picture of what the university complex ought to be in the cultural-urban context.

Not one of them attempted to share with the young who had come, because they had been promised tangible ideas, the larger tasks of reconciling imagination and reality through the medium of architecture.

Snobism, a paranoid fear to reveal projects, intellectual inertia— one thing is certain. If architecture dies, it is an inside job by men who do not understand that architecture is image-making, personal as well as structural, and that talent becomes sterile without character.

New York City SIBYL MOHOLY-NAGY

IN ACCORD

Forum: The excellent article on Kenneth Shelton's "structures" [Jan./Feb.] was indeed gratifying to all involved in this exhibition.

I was particularly interested in the idea that the structures in Bryant Park not only related to their surroundings esthetically, but seemed to echo the tone of life in the area and in the city. This penetrating observation sheds new light on the potential of art in our environment and presents an interesting challenge to our artists who view the city as an appropriate forum for their work.

AUGUST HECKSCHER
New York City Commissioner of Parks
(continued on page 14)
Handsomer Governmental Center for Santa Cruz County, California, uses 11,400 precast elements—achieves substantial cost savings

The $6-million Santa Cruz County Governmental Center in the city of Santa Cruz, California, is a striking example of contemporary design expressed in economical concrete. This impressive complex—consisting of a 5-story Administration Building, a 1-story Courts Building and a connecting bridge—was erected at a cost of only $24.16 a square foot—$4.00 less than the average for comparable county buildings in the state.

The secret lay in the Center’s intricate repetitiveness on a 5-foot module, which permitted precasting of some 11,400 concrete elements. These included Vierendeel trusses and beams, wall panels, floor and roof slabs, stair steps and stair landings, eave panels and sunscreens.

The trusses and beams were also left exposed, eliminating the need for suspended ceilings.

To enhance the concrete in this handsome, money-saving Center, a uniform light-colored cement was used throughout—popular Santa Cruz Cement, produced by Pacific Cement & Aggregates, a division of Lone Star operating in California and Hawaii. Lone Star Cement Corp., 100 Park Avenue, New York, N.Y. 10017.

For the Administration Building, 5-story cast-in-place tower bents were designed with cantilevered stubs, to carry precast Vierendeel trusses.

Vierendeels were also used in the Courts Building, to frame and cross frame nine contiguous bays. Both structures were designed to resist high seismic stresses.
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(continued from page 6)

ROOM FOR A VIEW

Forum: I have been considerably upset by your article "Workshop in Watts" [Jan./Feb.] in which I find myself quoted in a remark which could be inflammatory. This quotation is linked with another in the same sentence, implying that I made both of them: "Its chairman, Ted Watkins, is widely reputed to be 'Mayor Yorty's man in Watts, very well wired-in uptown,' and, as Parisi reports the feeling, there is 'some question as to what Ted Watkins is running for.'"

Mr. Watkins is virtually unknown to me except by reputation and by what I have observed him doing; I am in no way connected with the Watts Model Cities Project. However, as the Project Coordinator of the East/Northwest Los Angeles Model Neighborhood, I have more than a passing interest in the Watts project. I have found Mr. Watkins to be extremely efficient, well organized, and effective in whatever he undertakes. This includes the Sausage Rehabilitation Center which he operated last summer for underprivileged youngsters. I am positive that I would not say that he is "Mayor Yorty's man in Watts," nor that I "questioned what he is running for."

As the editor of a professional state-wide journal for a period of six years, I meticulously checked quotations with the persons who were alleged to have made them before I permitted the quotation to appear in print. For this reason, I am surprised and dismayed that these quotations appeared in your magazine without prior consultation.

ATTILIO G. PARISI
Project Coordinator
Los Angeles

During conversations in Watts, it was volunteered frequently, in various ways, and in so many words, that Ted Watkins was "Mayor Yorty's man in Watts." One man expressed this by saying that Watkins is "very well wired-in uptown." In the interest of brevity, these were put together as one quote, and because it was not important to mention the names of these persons, they were expressed simply as a view that is "widely" held. There was no implication that Mr. Parisi also held this view. Mr. Parisi did say, however, that, if he understands it, some people do have "some question (or suspicion) about what Ted Watkins is running for." It seems quite clear that Mr. Parisi is not expressing his own view, but is merely reporting the feeling of others. The FORUM, as a matter of policy, and in the tradition of independent journalism, does not check quotations with those who are interviewed. We do our best to interview carefully, and to write clearly and accurately. We hope that our readers will read us in similar fashion.—Ed.

WHO'S RESPONSIBLE?

Forum: Your article concerning the new Art and Architecture Building of the University of Illinois, Chicago Campus has stimulated the necessity of this letter. It is alarming to find that an architectural journal with intentions such as yours, would review an architectural event with very little regard to its context and implications. Your article appears to be intentionally diplomatic; as if you were attempting to maintain the status quo of that thing labeled "established order."

It is unfortunate that you have chosen to overlook the relevance of an attitude toward architecture that permits "field theory design." A method you have defined as the "turning out of exotic geometric patterns." It seems to be typically neoclassic in attitude and completely unrelated to a program of specific needs.

You also note that Mr. Netsch used what he refers to as an "impersonal system." And, you seem rather defensive toward the theoretical basis of the facility by the repeated use of words such as "intended" and "hoped." But, whether or not the architect intended the system to be impersonal is irrelevant because the building is now a reality. It would probably be more appropriate to question the significance of this existing reality in the context of an urban architectural school.

In this same manner you are seemingly able to dismiss the specifics of the building. Apparently "it was agreed" justifies the lack of windows. But, who has agreed? The college is in total opposition. Moreover, this early dismissal of the window denies the principles of visual extension. It denies the
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Letters (continued from page 14)

possibility of complimenting a much greater total—Chicago.
Likewise, introversion is most certainly not the spirit of what an architectural education should be. Architecture requires the total involvement of the architect with people and their environment. He must be oriented accordingly. Perhaps your phrase: "if only SOM had known," is only slightly out of context here.

And if only they had known about circulation. It is unfortunately true that people in fact, do "have to go down to get up" as in the case of movement from the slide library to the vending area. Perhaps it should be noted here that psychologically the shortest way is the "only way." All other possibilities become abstractions.

It would be unjust to say you are not critical. But, perhaps you should reevaluate the direction of your criticism. It is easy to discuss architectural form in the neoclassic sense rather than as the reflection of those needs that are to be served. Unfortunately the former is no longer relevant.

Furthermore, the time has long since past when judgment could be withheld for future completion. Our needs change so rapidly that one can no longer hope for a finished product. Unless an architect and his architecture can adapt to change through modification, their usefulness is questionable. Why then do you insist that this building is "hardly a fair test?" Is it the test and unless constructive criticism is made and accepted future expansion will be little more than a reflection of past errors.

John R. Naughton
Students Associated for Responsible Architecture
Chicago, Ill.

Our article was "intentionally diplomatic"; it would have been irresponsible to judge Netsch's whole approach on the evidence of one thwarted example. We are not at all sure that his approach stands for the "established order"; maybe the reaction of the students represents it better in this case. As for the functional "specifics" of the building, that is what most of our article was about. The deficiencies of windows, circulation, etc.—most of which are aggravated by the incomplete state of the building—were pointed out and explained in our article. Responsibility for any shortcomings must be shared by the administrators of the school, who were involved at every stage from programming to furnishing—and some of whom are architects. We particularly disagree with the writer's claim that judgment should not be withheld until completion of a building. Judgment at the time of "completion" is, in fact, premature. As the illusion of "completion" evaporates, criticism—like design—should become open-ended. Every judgment will have to be considered an interim one, and that is what we consider this article to be.—Ed.

Credit Due
Forum: With regard to the preview of the Metro Centre Toronto project (Jan./Feb.), and to the architectural credits, we would mention that our firm, together with John Andrews' firm, were associated architects. Although, perhaps, our firm is not as well-known as John Andrews' firm outside Canada, our firm did play a major role in the preliminary development of this project, and is presently engaged with Mr. Andrews in the continuing detail design analysis for Phase I implementation.

Peter Webb
Webb Zerafa Monkis, Architects
Toronto, Canada

Compliments
Forum: Those who have not seen the size or the scope of the Douglas Commission report cannot appreciate how much of a compliment we intend for your editor, James Bailey, when we say he did a masterful job of picking out crucial elements and of portraying Commission viewpoints accurately.

Since you went to press on that Jan./Feb. issue, our report has been printed with the title, "Building the American City," and may be purchased for $4.50 from the Government Printing Office, Washington, D.C. 20402.

Walter Rybeck
Acting Director
National Commission on Urban Problems
Washington, D.C.

Errata: In our article, "The New Gamesmanship" (Dec.) we neglected to credit the architects of the game room, game board, and pieces that we had photographed on page 60. Architects were the firm of Arthur Cotton Moore of Washington, D.C.

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New Yorkers, in the aftermath of the tragic fire in the architectural offices of David Rosen & Associates in late February, which claimed 11 lives, were taking a new look at their office flammables and office escape procedures.

For architects, the fire was a disturbing reminder of the explosive products and supplies in their drafting rooms: tracing paper (the Rosen fire began with drawings hung on a wall); rubber cement and cement thinner; fixative and color sprays; wood and paper scraps used in model making—all potential tinder.

The manufacturer of the rubber cement used in this magazine's offices claims that his people are "sitting around here right now trying to come up with a nonflammable product. Three new solvents just came in today that we're going to experiment with."

The major deterrent facing them is that eliminating the high flash point—which would, they feel, be very expensive—may require toxic solvents, and that each must be checked out with the health authorities. Carbon tetrachloride was, of course, not even considered for that reason.

And research into packaging of industrial flammables could, perhaps, lead to containers that relieve volatile pressures building up in the can while sounding some kind of alarm.

But the immediate lesson, hopefully learned, was that heightened awareness should lead to increased vigilance in the use of these combustibles.

THE EAGLE FLAPS AGAIN

The new U.S. Ambassador to the Court of St. James's, Publisher Walter H. Annenberg, has indicated where he will begin to cement—or uncement—better relations with the British: he will remove the bronze eagle (above right) from its embattled lair atop the embassy building, which was designed by the late Eero Saarinen.

In confirmation hearings before the Senate Foreign Relations Committee, Annenberg aped the eagle's 35-ft. wing span with his arms, declared it "blatant and insensitive," and pointed out that the United States had no monopoly on eagles. "I'm proud of that eagle," rejoined Senator Karl E. Mundt (Rep., S. Dak.), ever sensitive to un-American sentiments. He then went on to determine if Annenberg's disapproval of the eagle extended to its representation in the President's seal.

"I too am proud of eagles, in fact I collect eagles," was Annenberg's reply. To which the Senator is reported to have exclaimed, "Oh ho!...

But the eagle's sculptor Theodore Roszak, after studying a transcript of the hearings, says that Annenberg was clearly referring to his large "collection" of eagle-bedecked currency.

Roszak, a former member of Washington's Fine Arts Commission, said there was no immediate threat to the sculpture. "Annenberg was grandstanding a bit for the British."

UPTIGHT MOORES

"The front view doesn't enable one to foresee the back view. As you move round it, the two parts overlap or they open up and there's space between," said Henry Moore of his powerfully languorous Reclining Figure No. 2. But that cannot be said of it now. No. 2—and No. 1—were, in 1961, both installed some distance away from the glass facade of the Lambert-St. Louis Airport. In recent months, when a driveway was reconstructed and their foun-
tain basin eliminated, the figures were pushed up tight against the glass wall (below), separated from one another by a covered entrance corridor, and left to expose their backsides as if in punishment for some obscure misconduct.

"The pieces should, of course, have been turned around to face outward when they were placed so near to the building," said Architecture Critic George McCue in the St. Louis Post-Dispatch.

"A perfectly ridiculous mistake that practically no one noticed," said Donor Howard F. Baer, who concluded: "I wouldn't advise anyone to give the city art objects."

### PULLOUTS

#### DEATH AND METAMORPHOSIS

The merchants of Les Halles, the famed open market which Emile Zola called "the belly of Paris," were evacuated to deserted Rungis near Orly Airport last month—a transplanted that officials allege will restore circulation to the traffic-clogged city core and put more money in the merchants' pockets. But residuals of another kind—of what guide books call "local color"—will surely resist transplantation to the dreary rows of hangar-like structures at Rungis (below). These are residuals which have been accruing since 1199, when King Philippe Auguste built two stalls for cloth merchants and weavers.

The iron-girdered and glass-sky-lighted pavilions of Les Halles, designed by Victor Baltard in 1851 (above), could not contain the 24-hour activity that mixed as many types of people as produce. The pavilions will almost surely come down unless a campaign which has been mounted to save them is successful. (Messages should be addressed to René Capitant, President de la Commission Permanente Des Halles, Conseil de Paris, Hotel de Ville.)

One hopeful note is that six massive architectural proposals for redeveloping the area, advanced last year, were withdrawn after heated protests from Parisians.

Meanwhile, officials are deploying their forces against a rearguard rat patrol—estimated at 500,000 strong—that threatens to invade other areas of the city for food.

### NEW TOWN, OLD STORY

Three years ago the General Electric Co. announced that it was getting into the new town development business. Last month, G.E. pulled out without ever having selected a site.

Originally planned was a new town with a population of 100,000 or more to be built on 10- to 15,000 acres of land over a 20-year period with a balance of industry, commerce, and housing. Through it they would test new construction techniques, products, systems and sub-systems.

At that time, G.E. had analyzed the building industry's failure to supply the market's demand as due to the following: rapidly rising land costs; unrealistic zoning; building codes incompatible with the use of cost-saving materials and methods; rising wages, taxes, and interest rates; tight money; and "the highly fragmented character of the building industry."

In determining that very little had changed in three years, G.E. last month made these specific recommendations to government:

- Eminent domain must be granted to private corporations or to State Development Corporations, in order to assemble land that would take advantage of existing and planned public facilities.
- Something similar to urban renewal might be created whereby land is assembled, master-planned, zoned, and resold at a write-down to private builders by a local development authority.
- Tax restraint must be exercised to relieve the financial burden in the early stages.
- States must legislate to allow the developer a measure of control over planning, zoning, and community services. States must establish grant and loan funds to match federal funds in such areas as water, sewer, and transportation systems. Town halls, fire and police stations, and schools should be provided by the state.
- "Should the proper combination of conditions ever occur," G.E. concluded, "our involvement could be reactivated."

### TRANSPORT

#### BUS GRANTS

Three projects funded by the U.S. Department of Transportation will soon get under way to test methods of improving bus service for passengers while eliminating air pollution for pedestrians (see cartoon).

- The Dallas Transit System will test *external* combustion engines powered by a chemical compound of nonflammable gaseous and liquid paraffin hydrocarbons, used widely as a refrigerant and as a propellant for aerosols. The compound, heated in a boiler by a propane gas-fed flame, is converted into pressurized vapors which drive the double-acting pistons.

The engine, soundless and fume-free, was developed by Wallace L. Minto, an engineer and scientist once cited by Secretary of War Henry L. Stimson for work "essential to the production of the atomic bomb." The two demonstration buses, which will be designed and built by LTV Aerospace Corp., will have computers that constantly monitor the engine's performance.

- The Municipal Railway of San Francisco and the AC Transit Co. of Oakland will install steam-powered engines in four conventional-style commuter buses. They will be "odorless, smog-free, and virtually soundless . . . cheaper, lighter, and easier to maintain," says San Francisco Assemblyman John F. Foran. (In a separate project, the California Highway Patrol, in the next year, will test steam engines in two standard patrol cruisers.)

- MIT, on a DOT grant of $312,000, will develop a "Dial-A-Bus"
system. This would enable a person to telephone a central computer which would in turn radio the request to one of a fleet of minibuses traveling on unfixed routes. The system will be designed for use round-the-clock in suburban areas and during slack hours in central cities.

FRENCH FIRST

"Triza 8," which sounds like a space vehicle, looks like a monorail, travels on the hover-craft principle, and is called a "flying bus," is expected to be operational by 1970 along two miles of the Rhone River in France. It will connect the center of Lyon with an international trade fair. A miniature prototype (below) was demonstrated recently on an indoor track.

Invented by Professor Maurice Barthalon, the inverted hovertrain is supported on an air film sucked between the overhead track and a vacuum chamber atop each coach, and is powered by an electric motor.

Clean, and practically noiseless, the Lyon train will be composed of three coaches, each with a capacity of 30 passengers. The two-mile trip will take six minutes at a maximum speed of 30 mph. Installation costs are estimated at $4.5 million, or 30 per cent that of Barthalon, the inverted hovertrain between the overhead track and a monorail and 5 to 10 per cent a maximum speed of 30 mph. In and is powered by an electric motor.

A passenger boarding a speeding subway train between stations sounds like a bit from The Perils of Pauline. It is, in fact, how one will board "AT 2000," a new French rapid transit train being developed by the Société Automatisme et Technique. They will produce a working scale model of the system, which will enable passengers to journey non-stop from point of departure to destination.

Trains will actually be split down the middle lengthwise, the two detachable sides functioning like railway coaches and "corridors." The coach half travels continuously, making no stops. One boards a corridor, which is at rest on a side-track in the station. As the train arrives, it releases its corridor to the side track while the one which you have boarded moves out to replace it (above). The coupling completed, doors open between the two sections permitting exchange of passengers. And when one wants to "split," he does...literally—with half the train.

OVERHEAD TO UNDERGROUND

The President's Council on Historic Preservation, in an unusual, personal inspection of a disputed preservation site, has recommended to DOT Secretary Volpe that New Orleans' Riverfront Expressway through the historic Vieux Carré be relocated, or, if that is not feasible, that it be constructed as a depressed roadway. Going beyond federal and local agreements that the road be built at grade (March issue), the council's "comments" are advisory only but are usually well received by the applicable agencies in Washington.

Their unexpectedly favorable recommendation, phrased in strong language, is a major victory for conservationists and Vieux Carré landowners in the dispute that dates to 1946, when Robert Moses first suggested an elevated route along the Mississippi (March '67).

IGNORING THE WARNINGS...

A fundamentalist minister from California has moved 200 of his flock to the promised land of Georgia. He predicted California's doom after a vision from God in which a flash of lightning on a map of the state followed the line of the San Andreas Fault.

That God is alive and lecturing in seismology is apparently the lesson. And, ironically, it differs only in source from a consensus of experts who have "instrumented the hell out of the Fault," in the words of one geologist.

Here are some collected observations on earthquakes and the building industry:

"We cannot safely put a building on an active fault. Period."—Henry J. Degenkolb, structural engineer.

"About 50 new subdivisions a year are built over known fault areas."—California State Division of Real Estate Boards.

"Failure of a nuclear power plant [in or near earthquake zones] would probably result in loss of life and great destruction of property."—Joseph A. Fischer, consulting engineer in applied earth sciences.

"Stanford University's expensive, two-mile linear atom accelerator sits only a mile from ground zero."—Richard Boeth, Examiner-Newsweek Service.

"Buildings over 20 stories, I believe, are only conditionally safe, even with the best engineering...Buildings for occupancy above 30 stories should not be constructed in California."—Charles F. Richter, Cal Tech seismologist, originator of the Richter scale for measuring earthquake magnitude.

... BUT GETTING THE POINT

Increased stability under seismic stress is alleged to be one of the virtues of the startling Transamerica Corp. building, designed by William L. Pereira & Associates and proposed for San Francisco's skyline (second from right in photo above). To be the tallest building west of Chicago's John Hancock, this spindly pyramid—55 stories plus 240-ft. spire—will come to a sharp point 1,000 ft. above Montgomery Street.

San Francisco's Supervisors are presently considering a law similar to Los Angeles' "parapet ordinance," which forbids potentially lethal bric-a-brac that might hurtle down into the street in the event of a quake. Whether or not Transamerica's needle is potentially lethal, it has already prompted a howl out of Architecture Critic...
Allan Temko. As quoted by Herb Caen in the San Francisco Chronicle, Temko called the building “an abomination.” But, as Caen continues, “Temko really hasn’t liked much since Notre Dame.”

ONE YEAR LATER

In March of 1968, the landmark Kerner Commission report warned that “our nation is moving toward two societies — one black, one white, separate and unequal,” and it contained mountains of supporting evidence.

What effect has the warning had? Pitifully little, according to a follow-up report produced jointly by Urban America Inc. and the Urban Coalition. Entitled “One Year Later,” the report notes that some progress has been made, but not nearly enough to reverse the trend that the Kerner Commission spelled out. The new report concludes: “A year later, we are a year closer to being two societies, black and white, increasingly separate and scarcely less unequal.”

The joint report is the result of a three-month staff study and was written by Donald Canty, director of Urban America’s Information Center and former managing editor of The Architectural Forum. It was reviewed by an eight-man advisory panel which included two members of the Kerner Commission: Mayor John V. Lindsay of New York City, and Senator Fred R. Harris (Dem., Okla.). Among the principal findings contained in the report are these:

• “There was striking evidence of a deepening of the movement of black pride, black identity, and black control and improvement of ghetto neighborhoods. There were repeated suggestions that efforts toward community control and self-help had been a major contribution to the relative quiet of the summer of 1968.”

• “There was no evidence that any more than a small minority of the nation’s Negro population was prepared to follow militant leaders toward separatism or the tactical use of violence. This minority, however, continued to have an impact beyond its numbers, particularly on the young.”

• “The deepening of concern about conditions in the slums and ghettos on the part of some white persons and institutions had been counterbalanced — perhaps over-balanced—by a deepening of aver-

sion and resistance on the part of others.”

• “The mood of the blacks, wherever it stands precisely on the spectrum between militancy and submission, is not moving in the direction of patience. The black neighborhoods in the cities remain slums, marked by poverty and decay; they remain ghettos, marked by racial concentration and confinement.”

THE CAKE IS MISSING

In an article commenting on the Urban America-Urban Coalition report, William Raspberry of the Washington Post made these observations last month:

“White people in cities and suburbs have been asking—sincerely, I believe—what they can do to help heal the breach between themselves and their black brothers. And the sad answer is that there probably is very little that they can do, at least until the government creates the context within which they can perform. “For even the most earnest dialogue cannot improve a ghetto resident’s credit rating or get rid of the vermin in his overpriced tenement or find him a meaningful job or educate his ignorant children. Tutorial programs and trips to art museums may make attractive frosting. But the cake itself is missing.

“The fact that so many Americans, white and black, are searching for ways to do what they can, suggests that important segments of the populace may be ready for the kind of commitment that the Kerner Commission called for a year ago.

“But their willingness to follow is meaningless unless the national government is willing to lead.”

MODERATION WINS OUT

Welfare Island, largely abandoned but strategically located in the East River between the New York City boroughs of Manhattan and Queens, has been in limbo for years, but not exactly ignored. Development proposals for its use have ranged from high-density housing (June ’61 issue) to gambling casinos.

Now, the Welfare Island Planning and Development Committee, one year after its appointment by Mayor John V. Lindsay (March ’68 issue), has rejected large-scale housing that might “create a visual barrier of high-

(continued on page 85)
The first question is: why anything so conspicuously round should be called square. The answer is that the name “Australia Square” refers to a redevelopment which consolidated more than 30 separate properties and some alley-ways into one island block of about one and a half acres in the most crowded part of Sydney. Much of this rectangular block has been left open as a public square. The tall cylinder is just the biggest of several elements built on it. The cylinder is also the architectural heart of the complex, but the open part—or plaza—is its social pulse and should be considered first.

This open area is by no means parkland. It has three floors of parking under it, and it is split across the middle by a 12-ft. change of level. The plaza on the lower level slips in under the upper one and merges into a shopping arcade. The round tower rises from the upper plaza, and a 13-story rectangular office block fills the far end of the lower plaza. Nature is represented symbolically by a programmed fountain (above) that changes from birthday- to wedding-cake shapes at irregular intervals, and five planting beds, each with a tree.

In short, the open space is as crowded as necessary to justify itself economically. Yet it is just open enough; it does work as intended. It is the most usable bit of fresh air for blocks around and is a smashing popular success. At any time of the day most of its cafe tables are occupied, and at lunch time it is packed.

Mr. Boyd is an architect practicing in Melbourne, Australia, and a well-known critic. He is a member of the Forum’s Board of Contributors.

A strong attempt has been made to free the space at plaza level under the 13-story block (above). The columns have been drawn together at the base. Whether this device is successful is debatable. It eliminates the forest of verticals but substitutes some very sturdy branching trees. In any case, this building is only a foil to the giant cylinder which is revealed gradually, from the bottom up, as you walk from the shadows of those trees onto the lower plaza.

The tower is not a fashionable building. That is said in praise. Yet at the time it was designed, seven or eight years ago, it would have been much more fashionable, for, at that time, buildings with plans that were round or square or of any other basic geometrical shape were still quite the rage. It was constructed quickly once work on site began, the floors piling up and leaving one guessing as to the ultimate height, lacking a steel frame which would have sketched in the outline. But, before that, there was much hacking and filling, including contretemps over acquisition of land and light angles. It could have been the highest reinforced-concrete building in the world at the time, but it finished just behind Montreal’s Place Victoria. So the design remained an idea for some years while architectural fashion scrambled on into a new era of diagonal com-
plexity fractured by protrusions. Australia Square Tower, as well as being simply cylindrical, is unfashionably bland and smooth. It does not attempt a great stride forward, which makes it refreshingly normal. It claims attention not through momentary excitement but because of explicit simplicity.

It is a beautifully made building, neither under- nor over-detailed, avoiding any suggestion of arrogant coarseness as well as effete elegance. You simply are not conscious of the technique, as you should not be when confronting any work of art, unless you are professionally involved in it.

The two main, lower floors, which have to carry double the loading of the upper office floors, were designed by Pier Luigi Nervi. He used characteristic curved, crossing ribs (below) on the soffits, which may not be the simplest structural solution for a span of 35 feet but look at home in the circular context.

The fin-like external columns taper in most reasonably as they climb and their load is lightened, but this taper is not exaggerated. It is less than four feet in the 50-story height and is not immediately noticeable.

If there is one detail that might be called an affectation, it is the change of color in the precast concrete of the horizontal panels between the windows. The beam section is white, the non-structural spandrel is dark. Whether this is done for ornamental or moral reasons, it is worth mentioning only because it is the one detail that might be questioned on rational grounds.

Site plan and section (left) explain two-level plaza arrangement on 1½ acre site. Space between 50-story cylindrical tower and 13-story rectangular office block has been turned into a screened and paved plaza, complete with restaurant and programmed fountain. Views of plaza are seen at right. Cylindrical pipes emerging from upper level of plaza are vent shafts that serve underground parking and loading facilities.
Concealed floor plan and typical office floor plan show radial structure developed in consultation with Pier Luigi Nervi. Ribbed floor system in interlocking curves (left top and bottom) was used for the heavily loaded bottom floors. Exterior columns taper from bottom to top, were poured into precast "forms" that then served as permanent, exterior finishes. Typical precast "form" is shown in diagram at top of page. All columns and beams are of exposed white quartz aggregate concrete. Non-bearing spandrels and screens were precast with a darker aggregate. Right: Portico of cylindrical tower at upper plaza level. The rectangular, 13-story office block is seen beyond the ring of columns.

Since the tower is so impeccably done, so sensible and convincing, the question of its roundness becomes all the more insistent; for, without doubt, roundness in plan has often been a mark of commercial gimmickry. Moreover, the formal justification of a round tower rests to a great extent on its being isolated. This tower does command Sydney at the moment, but the city has embarked on a height race and soon a neighboring office block will reach above it.

Yet even the roundness of the plan is explained by the architect in matter-of-fact terms. It was, he says, derived by a process of elimination: from a rectangle, to a square, to a square on the diagonal, and thus to a circle. The last not only gave better outlooks; it actually made a greater floor area permissible, for the building code allowed the setback from each boundary to be measured to the average point of the curved surface facing it.

The tower, then, is convincing and confident, extending radial lines out across its plaza and raising echoes of circles in all the planting pockets and benches of its furnishings. Yet all this close harmony ends abruptly at that 13-story block (below), which bears little or no relation to the rest. It has elaborate sunshades and is even different in color. This is inconsistency, but not actual conflict. The only real crunch in Australia Square has nothing directly to do with the architecture.

It is the art, which has been introduced with love and lavishness, but is a minor misfortune. Two tapestries, by Le Corbusier and Vasarely respectively, hang, or flop in a dog-eared way as tapestries do, above the two main banks of elevator doors. They
appear unhappily temporary on the travertine background and one can only hope they will go away eventually, for they do nothing for the building. But a larger item which appears immovably permanent is a 38-ft.-high Calder stabile (below) which manages to find a foothold at the base of the tower. Allowing that Calder is a master of shapes and images, what he does to those poor old steel sheets—lapping and welding at random, torturing them into spikes—is in total conflict, an innocent but nonetheless direct intellectual snub to the rational, respectful use of materials in the building itself. The stabile looks almost as incongruous as the neon junk in the streets outside the architectural oasis of Australia Square.

FACTS AND FIGURES


PHOTOGRAPHS: Max Dupain

Top left: 47th floor contains a revolving restaurant with spectacular views of Sydney's harbor. Note the Opera House in the distance. Bottom left: Main lobby at upper plaza level. Tapestry is by Le Corbusier. Ceiling height in lobby is 24 ft. Right: Telephoto view of cylindrical tower against Sydney's skyline, with roof shells of Opera House in foreground.
One low-income neighborhood in Hartford, Conn., is welcoming urban renewal, having devised for itself an innovative plan with a unique "Everywhere School."

Ten minutes from Constitution Plaza in Hartford, Conn., is the neighborhood of South Arsenal, with 60 per cent of its residents on welfare and the rest not much ahead. The scene above, in South Arsenal, is like so many photos of the nation's capital, with its crumbling ghetto in the foreground and the Capitol in the near distance.

The nation's 20-year effort at urban renewal, in fact, seems dedicated to removing such scenes from the national consciousness—perhaps more to relieve the embarrassment of city fathers than the misery of city residents. Removal of eyesores has been the order of the day, no matter who or what was swept away with them. It is unusual, then, to find a ghetto community today that is eagerly looking forward to its own urban renewal.

But South Arsenal people have a different kind of renewal in mind. And after several years' work by a community group called SAND (South Arsenal Neighborhood Development Corp.) and its architect Jack Dollard (a partner in the firm Huntington, Darbee & Dollard), there is a renewal plan that does more than remove the eyesores. It is a plan that considers social change as much as physical change, and to that end the renewal would be built and managed by SAND. The plan's major concept is an "Everywhere School," a system of education that runs through the entire community, socially as well as physically, and involves the neighborhood in its daily operation. The plan also includes an innovative system of housing that allows a unit to adapt to the changing size of a family over the years, and allows the neighborhood to evolve from low-income to middle-income in the same place. Not least, this urban renewal is nobody's removal.

Early decisions
SAND started as the South Arsenal Neighborhood Council, formed when Hartford's anti-poverty agency opened a field office in the neighborhood in June 1965. Two years later, SAND was created—the first neighborhood development corporation in the state—for the purpose of taking an active part in the renewal process. Dollard had been hired late in 1966, to advise on preparing a plan.

Working with a committee of eight, who later became SAND's board of directors, Dollard slowly helped the group to find "its own thing." Undoubtedly, the plan shown here, to be presented...
The next discussions concerned the lines along which to restructure a community that all agreed was "worn out" and needed complete replacement. (About half the buildings are the three-story brick houses, built before 1900, seen throughout Hartford. At least half of the buildings in South Arsenal are deficient and substandard. Only 4 per cent are owner-occupied. Only 45 per cent have central heating.) Trying to get people to think about different possibilities—not just building the same thing, only new—Dollard has opened to them various avenues that might be followed. Perhaps the community could be developed as a house, with cooperative kitchens, central TV lounges, and dormitories for children. (This was rejected, because "we don't live that way in America." ) Or it could be developed as a park (rejected as being "silly"), a factory ("depressing"), or a university. It had earlier been decided by neighborhood people that their main objective was a good education for their children, allowing at least the children to escape the existing environment. The idea of a university—where education is a way of life, and where the emphasis is on getting ahead (intellectually or economically)—would answer this hope. The "Everywhere School" that developed is like a university, and is the principle on which the plan pivots. It is a brilliant answer to the ills of inner-city education, and, at the same time, a down-to-earth proposal that is thoroughly workable.

The "Everywhere School," as might be imagined, is everywhere. The traditional school has been exploded into a series of teaching spaces and facilities now spread throughout the neighborhood. The library, for instance, becomes a community focal point; the auditorium becomes a community theater. The gym is a third central place; arts and industrial crafts are grouped into a fourth.

School is everywhere

These special facilities form a kind of neighborhood commons, while the other educational spaces are strung together along the ground floor of highrise and lowrise buildings. Because the housing above is based on a 12-ft.-sq. module (about which more later), this meandering school space is in small bays, suited to a variety of small activities. For larger groups, there is a larger pie-shaped space every so often. (There are also enclosed outdoor spaces.) The school goes through
Flexibility is a primary goal; the educational space of MIAs—or Multi Instructional Areas—can expand or contract in any way that seems desirable at the time. The special buildings are also adaptable; the theater and arts spaces, for instance, will be built as barren enclosures to permit their use in various ways, as ideas come from the school and community. This possibility for change is in the best tradition of experimentation in the arts, while it is also in the new tradition of citizen participation.

Local involvement

The "Everywhere School" goes beyond the traditional school in its operation, too. As Dollard describes it, "The whole city of Hartford is about the size of New York City's Ocean Hill-Brownsville, so it wouldn't make any sense for Hartford to decentralize. But we want our input, we want to be involved in the education of our children." (Dollard consistently uses the word "we," although he himself is white—South Arsenal is 60 percent black and 40 percent Puerto Rican—and he lives on the rural fringe of Hartford.)

The means by which residents take part in the educational process are diagrammed. The master counselor is none other than the old principal; he is hired by the Board of Education and has full authority over the school. He needn't follow the recommendations of the 13-member Council, but the community can petition for his removal in the extremity (which, in fact, is possible today). An associate counselor is hired by the neighborhood (another is hired by the state) to coordinate the neighborhood facilities of the school, and arrange for the continuing education of adults and dropouts.

Local people are involved in teaching, too. For every 15 children, there are 15 adults—one is a master teacher and four are regular teachers, asked to live in the community; five are aides from the neighborhood (which comes as close as possible to sending both mother and child to school); two are program designers; and three are teaching associates (broken into half-day parcels, these could number up to 30 persons—professional people, "ordinary people," graduate students, do-gooders). For instance, if a child wonders why the moon program is called Apollo, an adult who knows Greek mythology might be called in for a few hours. Or if a man has no special talent but just likes to build garden walls, he might take some children and build a wall where it is needed.

Revolutionary? Possibly. There are increasing signs, however, that only a complete rethinking of inner-city education can help a system that is in profound distress across the country. Books like Kozol's Death at an Early Age and Kohl's 36 Children are
tragic testament to the failure of big-city education toward ghetto children, and dropout statistics tell the story in another way—of children beaten down in ways more wounding than the old-fashioned caning. To call a child "disadvantaged" is often the first step in considering him "unteachable."

A world that is not alien

Recent experiments, however, point to the success of starting with a world that is not alien to the subculture of the ghetto, and using teachers who are sensitive to the children's lives in and out of school. The parent-operated schools in Roxbury, Mass., for instance, have been so successful that there are plans to open two more. The SAND proposal makes the most of two conditions present in all income groups (but usually misunderstood and mishandled in the ghetto schools)—the natural curiosity of every child and the fierce eagerness of every parent.

There is widespread enthusiasm over the "Everywhere School." At the University of Massachusetts, the school of education endorses it completely. And some 35 persons (assembled from HUD, Urban America, ARCH) gave their full support at a conference last fall.

At home, the administrator in charge of Hartford's elementary schools considers it "1000 per cent on the right track." The Board of Education in Hartford has discussed the proposal at an open meeting, and a majority seems eager to approve it as soon as certain legal questions are answered. (A $4-million bond issue was passed last November, for instance, and the Board of Education will have to know whether that money can be applied to this concept.) The board has already granted SAND time to develop the proposal to this stage, postponing for three months the architect's selection.

The housing system is also innovative—spatially more than structurally. The goal was flexibility, enabling a family to stay in the same place while making small adjustments in the over-all size of its apartment. The solution considers each person entitled to a basic square footage—a module of 12 ft. square. (Since this is barely liveable for one, the basic space for one or two persons is two modules, then each additional person means an added module.) Each unit has a prefabricated bathroom (with a second bathroom available to families of eight or more), and a number of kitchen components that varies with the size of the family. Other than this, the living unit is unfinished. The family purchases whatever components it wants—movable walls, folding beds, closet and desk units (perhaps made locally)—or it just moves in with what it has. As the family expands or contracts, it takes over an adjacent module or gives one back—and rearranges the new interior.

Structurally, the housing is conventional. "Since 12 ft. by 12 ft. is too small to think about economically," says Dollard, "we took four of them and made a 'structural module.' We'd like to get the best out of concrete and steel—probably use concrete columns, steel caps, and concrete slabs. If someone has a better system, we'll use it." The modules would straddle or lie tangent to a mechanical spine, with bath and kitchen units plugged in anywhere along it.
Whether highrise or lowrise, the apartments are clustered in such a way as to eliminate all interior corridors. Living space is never more than 12 feet from an outside wall.

More important than the living unit, says Dollard, "is designing the number of people per public space." No more than 24 people—three to five families—can work as a unit, and one family should be paid for maintaining the space.

The meandering of the units across the site is not by design, but because there are open spaces at present, and building on these first would eliminate relocation. "It's not the best plan, or the most economical," says Dollard (the elevators serve eight floors), "but at first people didn't want anything over three or four stories. When they realized that there wouldn't be any open space if we didn't go higher, the decision was clear. But still they stipulated that no more than 30 per cent should be above the fourth floor." Cars are relegated to the periphery of the steeply sloping site.

**SAND at the center**

Since April 1968, SAND has occupied a large warehouse in South Arsenal, rent paid (but no advice tendered) by the University of Connecticut. Another hands-off supporter of SAND is the new state Department of Community Affairs, whose grant of $110,000 last September enables SAND to hire neighborhood staff and consultants.

The warehouse now has vivid murals painted on the concrete block, and bright colors around the several walled-off areas. Seeing what is done here makes Dollard confident that "warehouse" housing will be greeted with eagerness.

SAND is now seeking to make the warehouse a real neighborhood center. Membership is at 350. There are already health and legal services, art and music, movies, dances, and Bingo; and SAND will soon establish a cooperative store and shops for bicycle repair, auto-mechanics, and woodworking.

The next step is to involve more of the neighborhood in the renewal project. Thus far, perhaps 20 or 30 persons have been active, although a SAND survey of 500 families shows the majority strongly in favor of it.

"Most people don't dig the schools the way they are now, and that's our big selling point," says one staff member. Dollard does most of the talking to a group like the Board of Education (with mixed feelings about taking charge), but as one staff member puts it, "We all do what we do best; we'll talk to the community." The staff has had sessions in which they raise all the questions they expect from residents. Dollard believes it is essential to be open to criticism.

By May 1, SAND will make its presentation (complete with financial plan) to the Hartford Redevelopment Agency, and will ask to be named the developer. There is help on economics as on other aspects of the plan. ("We're not educators," Dollard says, "so we got the best people we could find"—one of the key people in Hartford's unusual Westledge school, for instance, has been working with SAND almost full time. "And we hired the best lawyers in town."") As a full-time financial consultant, SAND has Richard Main on loan from the investment department.
of Connecticut General Life Insurance Co. He is not so much working on this from the insurance company’s point of view (Connecticut General would not be the developer, although it might conceivably be the lender) as from SAND’s, trying to develop an economic program that will make the project a reality.

Main believes firmly that the role of private enterprise in urban problems is to assist local people, supporting them in every possible way, not just financially.

Implementation

At the moment, says Main, the thinking leans toward the interest-subsidy provision (section 236) of the 1968 housing act. Initially, the housing would be on a straight rental basis, since only twelve of the first 500 families could consider buying.

Implementation will depend on several crucial decisions. The corporation counsel and city council must be convinced that the bond issue passed last fall can be used for a school on more than one parcel of land (or that the bond issue can be set aside in favor of some other method of financing). One possibility is that the Board of Education would lease the ground-floor space from SAND. There is no precedent for this, and new enabling legislation would be needed.

“If we use a lease,” says Dick Main, “the city won’t spend that $4 million on a building; this would have been credited as their contribution to the renewal funds.” Thus a request has been made to HUD, asking that this lease money be capitalized to a value that can be applied against the $4 million. Another hurdle: the city planning commission won’t approve the renewal until a school site is chosen. “We want them to set that aside, and not hold up the renewal process,” says Dollard. If all goes well, site acquisition could begin this summer, construction by the fall.

Dollard is cautiously optimistic. “No one has any answers. Maybe this is an answer. We’re not trying to cure drug addicts, or find husbands for unmarried mothers. We’re trying to break the ghetto cycle for the children, and possibly make a better place for the afflicted to live out their affliction in. We’re not trying to be unique, but just build on things that most people will accept already, and extend them a little. And we’re not trying to be architecturally spectacular.”

No one knows if these ideas will work in the ways that are envisioned. There are no guarantees, only the guarantee that existing remedies—a new school building, imposed and operated by an external bureaucracy, or some new housing units, designed and managed from afar—make for little real change.

In South Arsenal, the renewal starts from within, and since renewal is a process as much as a product, there is promise of growth in the individual and the community. Self-renewal is surely harder than waiting for whatever worn-out or inappropriate ideas may be donated (like so many tattered evening clothes given to war refugees). Self-renewal involves a new kind of responsibility all along the way, for the ideas themselves and for the ways in which they will be worked out in day-to-day operation. Who, among those whose approval is needed on this proposal, wants the responsibility for having turned it down?

—ELLEN PERRY BERKELEY
Almost everything that catches your eye in the aerial photo at right is less than ten years old.

The freeway network; the big-league sports stadium (1); the auditorium-convention center (lower right-hand corner); the 41-story First National Bank Building (2)—highest in the city, but not for long)—and the six-building complex known as Peachtree Center (3)—these are only the most conspicuous landmarks of a $1.5-billion downtown building boom that, in less than one short decade, has transformed Atlanta from a slow-paced Southern town to what its boosters like to call a “national city.” What they mean by that term is that Atlanta now exerts powerful economic force beyond its region.

The spectacular boom didn’t just happen by itself. It is mostly the result of a vigorous promotion campaign called “Forward Atlanta” which was launched in 1961 by government and business leaders. The campaign has been so successful that more than 130 cities have sent delegations to Atlanta, hoping to learn the secret of its success.

They would be well advised to start by getting a mayor like Atlanta’s Ivan Allen Jr., who took office in 1962. As president of the Chamber of Commerce in 1961, Allen was instrumental in getting the Forward Atlanta program started. After that, as mayor, Allen saw to it that the city participated fully in the public-private effort.

Virtually all of Forward Atlanta’s advertising campaign (“Atlanta: a new kind of city”) has been concentrated in the North. “They’re the cats with the bread,” explains Opie L. Shelton, executive director of the Chamber of Commerce.

So far, downtown Atlanta’s spectacular boom has been mostly a matter of quantity, not quality. The towering new office buildings are impressive more for their size than for their design, and they have been plunked down with little regard for the environment (the handsome Equitable Building (4) is the first to have a landscaped plaza at its base, for whatever that may be worth).

Public projects have fared no better. For all its closeness to downtown, the stadium might as well be miles away, since it is cut off from the core by a massive freeway interchange. And the auditorium-convention center is inconvenient to the hotels which generate most of its use—and are, in turn, supported by it. A third civic project, the multipurpose Memorial Arts Center completed last year, would have been a natural for downtown, but it was built in a residential neighborhood.

Possibly, a new kind of city

Atlanta’s civic and business leaders are now waking up to the fact that “bigger” and “better” are not always synonymous, and they have begun laying plans to assure that the future growth of downtown embodies both. Their plans—and hopes—are centered on six key developments that could serve as catalysts for making downtown Atlanta the “new kind of city” its boosters now claim it to be.

One is Architect-Developer John Portman’s Peachtree Center, which is already Atlanta’s biggest and best downtown development, and promises to become much more so. Three others are large air-rights developments flanking the core of downtown: Developer Raymond D. Nasher’s Park Place project (5), the Georgia State College campus (6), and Developer Thomas G. Cousins’ project (7). The fifth and sixth elements are a proposed metropolitan rapid transit system converging at the center of downtown, and a small-scale pedestrian movement system looping the downtown area.

These six developments, and what they could mean to downtown Atlanta, are discussed on the following eight pages.
Portman's Peachtree Center is the first major step toward Atlanta's goal of "a new kind of city"

During the '60s, while the rest of downtown Atlanta was booming chaotically, John Portman was creating, step by step, the city's only cohesive complex of integrated buildings and spaces.

Peachtree Center stands rather aloofly apart from the clutter at the downtown core and has, in fact, become a little downtown all of its own. The visitor to Atlanta could easily have all of his needs attended to within the six buildings that currently compose the complex.

Both Peachtree Center and John Portman's remarkable career as an entrepreneur-architect got off the ground in 1961 with the 22-story Merchandise Mart (1 on plan). Before he designed and built the Mart, Portman—with his partner, H. Griffith Edwards—had been practicing architecture in the conventional way, and becoming increasingly frustrated. Portman wanted to design large-scale urban developments, but no such commissions were coming his way. So he decided: "If I come up with an idea and promote and develop it myself, there won't be any question about who is going to be the architect."

The first idea

In 1957, after Portman had promoted a successful furniture exhibition in a remodeled downtown building, he came up with the idea that Atlanta could support a big, new merchandise mart, and that he could promote and design it. Portman formed a development corporation and secured an $8-million loan from Metropolitan Life Insurance Co., plus additional backing from Atlanta Realtor Ben Massell and Dallas Developer Trammel Crow.

With Portman in complete control of its design and financing, Peachtree Center was on its way. In 1965, three years after the Mart opened, Portman added the Peachtree Center Building, a 30-story office tower (2). Then, in rapid succession, he built the Trailways Bus Terminal topped by a four-deck parking structure (3); the 21-story, 800-room Regency Hyatt House Hotel (4); the 25-story Gas Light Tower (5); and its mirror-image Twin Tower (6). He also doubled the size of the original Mart to 2 million sq. ft. in 1968, making it the second largest in the world (after Chicago's).

Now under construction is a circular, 200-room addition to the Regency (7). And later this year, on a site behind the twin towers (8), construction will start on Peachtree Center's (and the city's) tallest building: a 70-story tower containing 57 floors of offices topped by 13 floors of "corporate apartments." The apartments will be leased by companies for housing and entertaining visiting executives and important guests.

A harmonious whole

With one notable exception—the soaring interior of its hotel (see page 47)—Peachtree Center is not a showcase of exciting architecture. But the complex adds up to more than the sum of its parts. The individual buildings, if not distinguished in design, are at least harmonious in their relationships. And Portman has added plazas, landscaping, outdoor sculpture, and other touches that tie the complex together at ground level.

At night, Peachtree Center remains bustling with activity long after the rest of downtown has closed up. The hotel, of course, is the major nighttime attraction, but Portman has placed a number of restaurants in and among the other buildings to assure after-hours activity throughout the center. Two of the restaurants are located beneath the plaza that separates the twin towers, and two others are in the Mart—one on the ground floor and another on the roof.

Portman has also linked the buildings with a series of enclosed pedestrian bridges, and claims that "you can go anywhere in Peachtree Center without going outside." The claim is true, as far as it goes. But if, for example, you want to get from the hotel to the lobby of the Peachtree Center Building without going outside, you have to cross a bridge leading from the hotel lobby (4) to the base of the Gas Light Tower (5); take an elevator to the 23rd floor; cross a bridge spanning Peachtree Street to the roof of the Mart (1); cross another bridge connecting the Mart with the 23rd floor of the Peachtree Center Building (2); and, finally, take another elevator down to the lobby. Nevertheless, the bridges are a convenience for those people who work in the three office buildings.

Promotion vs. design

Some architects take a dim view of Portman's dual career, claiming that his role as a developer compromises his integrity as an architect. Portman denies that there is any conflict of interest, and he cites his design of the Regency Hotel as a case in point. Portman asserts that the Regency, with its spectacular interior courtyard rising the full height of the building, would not have been built if he had designed it for a hotel client. (It was sold to the Hyatt House chain after construction was nearly completed.) One architect in a large New York firm agrees. "We tried to get one of our hotel clients to accept an interior courtyard, and got nowhere," he said. "The client's first and last reaction was 'Look at all that wasted space!'"

The present Peachtree Center, says Portman, is only the nucleus of what will eventually become a "city within a city," containing apartments, shops, theaters, and a wide variety of other functions. Portman is continually acquiring parcels of land in the area, the latest being a lease on an adjacent state-owned site (9) occupied by an old hotel, which will be demolished.

One of Portman's future plans involves the city's proposed rapid transit system. If it gets built, one of its routes will probably burrow underneath Peachtree Street, which bisects Portman's complex. At the same time, an underground roadway could be built, and the street could be turned into a pedestrian mall (see page 50).

A pedestrian mall closing off Peachtree Street would not only enhance Peachtree Center, it would provide a vital connecting link between the center and the rest of downtown Atlanta.
Left: two of the four enclosed pedestrian bridges that connect the buildings of Peachtree Center. The one at top spans Peachtree Street from the 23rd floor of the Gas Light Tower to the roof of the Merchandise Mart, where a restaurant is located. The bridge in the photo at left connects the Mart with a parking garage.

Right: the skylit interior courtyard of the Regency Hyatt House Hotel. The space is 223 ft. high and 140 ft. across, enclosed on all four sides by cantilevered balconies which serve as corridors for the 800 guest rooms. The glassed-in elevator cars rise along the outside of a rectangular core at one side of the courtyard.
The parking structure pictured above is the first phase of a $500-million, multilevel air-rights project planned by Developer Thomas G. Cousins. It will contain office buildings, hotels, shops, and possibly a sports arena.

Dallas Developer Raymond D. Nasher’s $200-million development will lie between the government center (note State Capitol on model photo below) and the Georgia State College campus (opposite). The buildings will rise above a multilevel platform (right).
The Cousins, Nasher and Georgia State projects could be the start of a vast "platform city"

With a little luck and a lot of coordinated planning, the three projects pictured on these pages could be the springboard for making downtown Atlanta a multilevel "platform city," in which all the transportation and pedestrian activities would be sorted out and meshed in a series of interrelated levels.

- The flat-topped parking structure pictured on the opposite page is the first phase of what will probably be the largest of the three projects. It will be built on air rights over a downtown railroad yard. Its developer, Thomas G. Cousins of Atlanta, has not released details of his plan, but it has been reported that the development will represent an investment of some $500 million and will contain office buildings, apartments, hotels, stores, and possibly a sports arena. Architects for the development are Toombs, Amisano & Wells of Atlanta.

- On a pie-shaped site adjacent to Atlanta's state-county-city government center, Dallas Developer Raymond D. Nasher will build Park Place, an 18-acre, $200-million complex that will also rise above railroad tracks. Its first building, a 22-story office structure, is now being designed, and plans call for construction of a hotel, additional office buildings, apartments, and a shopping concourse beneath a landscaped plaza. Architects are Skidmore, Owings & Merrill (New York) and Finch, Alexander, Barnes, Rothschild & Paschal of Atlanta.

- The third development, the Georgia State College campus, is already under way in a 40-acre area lying adjacent to the Park Place site. When it is completed in 1975, the campus will rest on a pedestrian platform built over existing streets. The focal point of the campus will be a 500,000-sq.-ft. Urban Life Center (model photo) designed by Finch, Alexander, Barnes, Rothschild & Paschal. It will draw upon all the school's departments to carry out comprehensive studies of the urban ecology. Georgia State's master plan was prepared by Robert & Co. of Atlanta.

The almost simultaneous emergence of the three multilevel de-
developments flanking the center of downtown has suddenly made the possibility of creating a "platform city" more than just a dream. "The potential is fantastic," says Planner Robert W. Bivens. "This thing is absolutely loaded."

Bivens is executive director of Central Atlanta Progress Inc. (CAP), a unique public-private planning organization set up by the city's civic and business leaders to coordinate and guide the future development of downtown. Working with funds provided by the business community, the city, and the federal government, CAP is now conducting planning studies that will eventually lead to a comprehensive set of guidelines for creating the "platform city." In addition to the three big air-right projects, CAP has three major elements to work with:

- A proposed rapid-transit system (dotted lines on conceptual diagram at right) converging at a downtown Transit Center located between the three new platform developments. Its underground mezzanine would tie in with the three developments to form a continuous pedestrian concourse. (A referendum to construct a 44-mile metropolitan transit system was defeated at the polls last November, but its advocates consider the turndown only a temporary setback. The plan is now being restudied by the Metropolitan Atlanta Rapid Transit Authority, and a revised proposal will be presented to the voters at a later date.)
- A small-scale movement system (dotted lines) serving pedestrians in the downtown area. Atlanta—along with Dallas, Denver, and Seattle—was selected last month by the Department of Transportation to participate in a $1.5-million "action program" leading to the development of central transportation systems that will "blend with the human environment."
- "Railroad Gulch," a vast area of downtown railroad yards crisscrossed overhead by a network of elevated street viaducts. The gulch and its viaducts provide a built-in framework for development of the "platform city." The Nasher and Cousins projects, both of which use air rights over sections of the gulch, are the first to take advantage of this framework, and Georgia State's platform over existing, grade-level streets will tie in with it. CAP's plan will establish guidelines for incorporating future projects into the framework. (There are likely to be many opportunities to do so, since the size of downtown is expected to double by 1983, and the gulch will be the most desirable area for the growth to take place.)

**Multilevel network**

If CAP is able to coordinate and guide all of these converging elements, the result could be a downtown something like the model pictured on the opposite page. It was prepared by Hou-shang Fahadi, a member of CAP's staff, to stimulate community discussion leading to the development of a master plan.

At the upper right-hand corner of the model photo are the Georgia State campus, the Nasher development, and the government center (note the dome of the State Capitol); at the lower left-hand corner is the Cousins project; and between them is the circular Transit Center. From this nucleus, a network of traffic-free pedestrian platforms spreads out in all directions to tie in with the existing downtown and with new developments in the railroad gulch. Beneath the platforms are separated levels for cars and transit, plus a mezzanine-level pedestrian concourse lined with shops.

Atlanta's "platform city" is a long way from fruition, but the city's decision-makers, both public and private, have already demonstrated that they consider it more than just a vague possibility. As the first year's public-private effort, they have jointly provided some $300,000 to finance studies by CAP and the city's planning staff. "This represents a new dimension," says Planner Donald G. Ingram, CAP's associate director, who is coordinating the effort. "With both the city and the business community committed to it, we think we can make it happen."

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The conceptual diagram above and the model pictured on the opposite page are the initial steps in downtown Atlanta's plan for becoming the nation's first "platform city." The plan centers on four large existing or proposed downtown developments: (1) the Georgia State College campus; (2) Park Place; (3) a third large air-rights development; and (4) Peachtree Center. Incorporated in the plan are a proposed rapid-transit system (dotted lines) converging at a Transit Center in the downtown core, and a "mini-system" (dashed lines) for transporting pedestrians throughout the downtown area. The result would be a multilevel network separating cars, transit, and people in a series of interconnected levels.

PHOTOGRAPHS: Page 43, Wray Studio; pages 44 and 48 (top); William A. Barnes.
I know you planner and architect types don't like us Billboard & Sign people, so I want to take this opportunity to go into some of the "REASONS" you don't like us......

First! We hide your buildings sometimes. Ok, we admit it — and sometimes it looks like hell. Second! You guys just don't like anybody else doing anything to your virgin architecture — even if it improves it.

Everyone is coming to realize that architecture today is primarily an arbitrary design process and this is not real architecture. But SIGNS are real! A sign is a sign.

KINDERGARTEN CHATS II

By Richard Hedman, city planner and urban designer in San Francisco

therefore the Billboard & Sign people are proposing a new approach to the conflict between signs and architecture.
The THIRD reason, and the one you cats won't admit, is nothing more than pure and simple ENVY!

Signs! not your sterile buildings and plazas make the city colorful and exciting! If you architects and planners had your way our cities would be a wasteland of frozen music and fossilized ego good.....

We propose replacing the make-believe facades of today's buildings with pure, honest SIGNS creating a new Architecture...

no longer will buildings be called Miesian, S.O.M. style, or new brutalism --- instead I see a new order: Standard Graphic Electric Spectacular and Animated Fantasy!

no may be right, but I was ahead of my time...
In his own departure from Buckminster Fuller's geodesics, Engineer-Mathematician Steve Baer has been experimenting with geometries—for a more economical approach to building. One of his first solution-creations was Drop City, Colo. (Sept. '67 issue), a hippie community constructed of skeletal domes covered with car tops (going rate per top, 25¢). Last spring, as an extension of a building technology course at the University of New Mexico, and as a 3-D illustration of a 40-page booklet of his theories, called...
Dome Cookbook, he and a motley crew of students, friends and passersby put together a four-lobed wooden cluster in the architecture school’s parking lot (photos above and left). Called a “zome” (from zonagon, Baer’s basic modular unit whose parallel sides can be stretched to alter shape but not angle), the 18-ft.-high structure had “panels” which could, he said, be “disassembled and reassembled in completely different shapes.” The zome cost $500 and took two weeks to build. Baer is now setting up a factory to produce modular panels for future zome builders.

OFFICE-IN-THE-ROUND

The doughnut-shaped bank and office building at right is a competition-winning design of Finnish Architects Kaija and Heikki Siren. Located on a corner of commercial Hakaniemi Square in the center of Helsinki, it is part of a chain of buildings to be constructed in Eliintarha Park along the northern shore of Töölö Bay. Three wide openings around the perimeter of the ground floor lead pedestrians to the skylighted Kansallispankki Bank (photo top right) in the center of the doughnut. The bank is surrounded by an aisle that is open to the sky and ringed by shops (see plan below). There are also shops above and below this level. Above the shopping floors are six tiers of offices. The top floor, slightly indented, is reserved for apartments.
Four years ago, St. Louis Mayor Alfonso J. Cervantes obtained the Spanish Pavilion, "jewel" of the 1964-65 New York World's Fair, for the developing area near the Gateway Arch. It cost some $5,500,000 to buy the 90,000-sq.-ft. structure, transport it from New York, and reconstruct it stone by stone. The exterior shell was completed last autumn (see work in progress, right) and interior installation is scheduled to be finished for an early June opening. The pavilion will contain four restaurants, a 750-seat theater, and a museum, most of them roofed over by the original suspended wood-block ceilings. Original architects: Javier Carvajal with Kelly & Gruzen. Supervising architects for the reconstruction: Fruea & Associates.

STEELED FOR PRIVACY

The vacation-house-in-the-trees (left) was designed to "grow" from a steep hillside 30 feet above the water in the vineyard region of New York State's Finger Lakes. The burden placed on structure by the owner's desire for openness conflicted with the remoteness of the site and with the inexperience of local contractors with this type of building. Architect Louis Skoler solved the problem by the use of steel prefabricated in a metropolitan center about 100 miles away, and then erected on site by the fabricator. The steel frame was then filled in to completion with glass and asbestos panels by local trades. Approach to the house is down a stair—from a carport near the private road—then over a bridge into the third level. This level (see plan) is a lounge and dining area, with two decks which may be used for the same purposes. The lounge, looking out over the lake and hills beyond, is two stories in height; a mezzanine halfway up is adjacent to the master suite. A circular steel staircase connects the lounge to the master suite above, and to the guestrooms and laundry below. The lowest level, cut back into the slope of the hill, has a workshop and storage area for sports equipment.
PACIFIC RESORT

The Pacific Hotel in Chigasaki, near Tokyo, stands out against the rugged backdrop of Mt. Fuji. The complex demonstrates a recurrent motif of Architect Kiwonori Kikutake and the Metabolists—cylindrical towers containing "service" elements, with modular units attached. The cylinders, in this case, are only exposed at the top of the tower block; around them is a low circular wall, then a corridor, and beyond that, a septagonal wall which bears the weight of the structure. The guestrooms are cantilevered from this wall, and spiral gradually upward around the central core. These rooms are designed in two styles—traditional Japanese with "tatami" mats included, or Western. Holding to Kikutake's concern with separation of equipment units from living space, the bathrooms (shaped or simply rectangular) are clipped onto the exterior of the tower. On the lower levels, outside the tower, are public spaces, including two swimming pools (exterior and interior), drive-in restaurant, bowling alley, and a tearoom.
TOWARDS A MOVABLE, LIVABLE MOBILE HOME

More than five million American families now live in "mobile homes," which are currently being turned out at the rate of 300,000 per year. Today's mobile home, by the industry's own definition, is a prefabricated dwelling unit designed to be towed on its own chassis. But, strangely enough, most of them are exceedingly difficult to move, and almost all of them have serious drawbacks as places to live.

John Vredevoogd, a recent graduate of Pratt Institute, has proposed (in his master's thesis) a new kind of mobile home, with distinct advantages over the present product. For one thing, Vredevoogd's mobile home could be bought in increments: the owner could start with as few as four 8-ft. segments, then extend the house to as many as eight
segments. At any size, the house will have a less claustrophobic interior than the conventional model, and the occupant will have some freedom to rearrange it. And this mobile home will be really movable: even the largest version will telescope to a package only 8 ft. wide and 34 ft. long, and it will be habitable in that form for brief periods (during transit, for instance), without connection to outside utilities.

Vredevoogd's most important departure is to dispense with the built-in chassis and rolling gear. Today's mobile homes—like the travel trailers from which they evolved—have wheels; but they have grown so large and heavy that they can be towed only under special highway regulations, by drivers with special licenses. Vredevoogd—accepting the fact that even a more movable unit will rarely be on the road—proposes to transport his dwelling on a flatbed truck, which can be rented.

The transformation of the portable package into a livable house is shown in the drawings on the facing page. An eight-segment house arrives at the site telescoped, with all components stored inside, and it is extended to full length (top to bottom, left) as it is unloaded. Transverse girders are pulled out from under the unit (section, top right) and vertical supports fold down to rest on 18-in.-square steel bearing plates. Once the truck has pulled away, the entire house is lowered to the desired level by adjusting hydraulic cylinders inside the vertical supports.
At this point, the segments of the house can be slid to either side along the supporting girders (plan above). The result is a much more convenient interior layout than the conventional mobile home provides, even though the width at any point is no greater than 8 ft. The staggered plan allows the corridor that links the house together to pass through each room at the location that is most convenient for that room.

Staggering the segments opens up gaps along the exterior, into which plastic window units (with built-in blinds) can be inserted. The wider gaps accommodate sliding doors, which open onto decks supported by the main girders. Solid or translucent panels can take the place of the windows, or even alternate with windows from season to season. Since none of the openings face directly out to the side of the house, some sense of privacy is preserved, even in the close spacing of suburban “mobile home parks.” All of the segments also have skylights, placed so that they light all spaces even when the house is telescoped.

The house comes equipped with molded plastic wardrobes and cabinets, which the occupant can attach as he pleases to continuous tracks built into the walls. The same tracks also include electrical plug-in strips serving all appliances and lighting fixtures, except for lighting strips built in around each skylight. Electrical radiant heating is installed in the floors and the lower portions of the walls.

Two of the segments, the bath-
room and kitchen units, are prefabricated down to the last detail. Each of them houses air-conditioning units, and ducts leading to the rooms on either side, all tucked into hollow spaces above cabinets and other equipment. The bathroom unit includes a 6-ft.-long tub-shower and laundry appliances which open from the corridor. Built-in water tanks and a chemical toilet make it possible for the house to function without sewer or water connections.

The structural frame of each segment is a continuous tube comprising floor, walls, and roof. Vredevoogd originally conceived of this enclosing membrane as a 2-in.-thick, stressed-skin sandwich of urethane foam between two sheets of aluminum (thickened slightly in the floor plane, which has to span 8 ft.). Subsequent research has shown that a sandwich using high-strength plastic sheet instead of aluminum would be just as strong, and much simpler to fabricate.

Vredevoogd’s study does not take up the possibilities, which manufacturers have been investigating, of stacking mobile homes in multistory structures. It is concerned only with the large—and growing—demand for single-story, freestanding, small-family dwellings. It points out ways in which manufacturers could turn out a better product for this market, by using materials more efficiently, by shaping space more imaginatively, and by giving the owner opportunities to expand or rearrange his living space—in short, by producing a really portable, livable house.
In Southern Louisiana, men have been building on piles ever since the early French fur trappers raised their cabins above the delta marshes. Today many buildings—and most highways—in the area are supported on concrete piles, but the piles are almost always hidden below grade. Even the piles used to support oil drilling equipment out in the Gulf, though visible, are treated as mere underpinnings for unrelated structures resting on them.

Now Engineer William Mouton Jr., who has long been making use of concrete piles, has decided to turn them to advantage by carrying them up into the structural frame of a building. Instead of interrupting the piles at grade and superimposing a different system, Mouton has made them continuous—from deep in the mud all the way up to the roof—forming a rigid, economical matrix of supports to which other prefabricated components can be attached.

Mouton's first application of the principle is in a small office building—housing his own firm—near Interstate Highway 10 outside New Orleans. The structural frame of the 3,000-sq.-ft. building is made up of only 27 major parts: 12 concrete piles and 15 precast concrete floor (or roof) panels. All of these parts were standard products of the precasting contractor, and all were fabricated within three working days.

The first step of the construction process (photos, right) was driving the 56-ft.-long, octagonal piles to a depth of 26 ft., where they rest on firm sand. Next, horizontal steel channels (2 in. by 8 in.) were inserted through steel sleeves cast into the piles. After that, the 8 ft. by 40 ft. floor sections were hoisted into place, then a 2-inch concrete topping was poured over them and allowed to fill the 2-ft. gaps between sections.

A great advantage of the system is the short time required to assemble the structural frame. Only three days were needed to drive the piles, one day to insert the steel channels and weld them in place, three days more to put the floor sections in place, and
Once the structural frame was in place, the end walls (top left) were constructed of wood frame with asbestos siding. The ground level (left) is used for covered parking, except for a small, faceted enclosure for utilities. Two exposed steel stairs on the rear of the building (facing page) provide the only access to the office floors. The structural rhythm of 8-ft.-wide precast floor sections alternating with 2-ft.-wide gaps (filled in with poured-in-place concrete topping) shows clearly along the edges of the balconies and roof.

FACTS AND FIGURES

PHOTOGRAPHS: John Messina, except construction photos.
BOOKS

REVIEWED BY SHADRACH WOODS

Planning for Diversity and Choice is a collection of papers presented at a conference of distinguished educators, planners, and architects, held at M.I.T. under the auspices of the Graham Foundation, the AIA-Princeton Educational Research Project, and M.I.T.'s department of architecture, in October 1966. Each contribution is followed by an edited transcript of part of the discussion provoked by these papers. The editor is Stanford Anderson, of the Department of Architecture at M.I.T., who was one of the organizers of the conference. The book is subtitled "Possible Futures and Their Relations to the Man-Controlled Environment." Almost none of the fashionable words have been left out of the titles, and if any have, they will be found liberally sprinkled throughout the book.

The assumption of the conference was that, in the future, man will be able to control his physical and political surroundings to a much greater degree than today, and that we can at present make provision for that future control. It was hoped to obtain from the conference attitudes and suggestions relevant to the urban environment and to its design, and, indeed, the members of the conference sought to investigate as thoroughly as possible the future of planning as well as the planning of futures.

Most of the participants are connected directly with academic spheres, and this may account for the curiously detached flavor of much of the discussion. It is, of course, impossible to review the future, since it has not yet occurred, but one would expect planners and philosophers to direct a certain amount of attention to the present, in which we are presently bogged down.

There are two basic attitudes revealed in these minutes: the one advocates "normative" planning, the other takes current and projected realities for its dreams. The first will seek to determine a "good" future and make plans accordingly, the other extrapolates the present and tries to live with it. Neither seems to recognize any other future than that which it invents, either out of "facts" or out of an attitude. The first seeks to redress inequities in the future, the second builds its future on inequity since it plainly accepts the present system of political and economic opportunism.

The book of the conference contains about 300 pages of provocative discourse, all of which turns about the problem of whether or not planners, educators, and architects are going to content themselves to remain a feeble minority in what H. Lefebvre, French sociologist, has called "the Consumer-Directed Bureaucratic Society." There is, in this book, literally something for everybody. Christ and Marx rub shoulders with Galbraith and Maltheus. The hard-line liberal, lost in the software department of our imperial shopping center, trades snide remarks with the soft-centered conservative whose faith in Ed Teller remains unshaken.

Now what?, one may reasonably ask. This conference occurred at the onset of the Johnson decline. We are now faced with another bureaucracy, Nixon's, and all of the "normative" planning of the Johnson era is down the drain. The Great Society was not so great, after all, but Plastic Man doesn't promise anything better. More administrative offices, perhaps, directed toward reducing the load of administration. The self-reproducing bureaucracy marches on.

On the basis of the ideas developed in this conference, reasonable criticism is extremely hard to come by. The spectacle of such a distinguished group trying to keep in step with archi-
of the conference, and the book, is the revelation of total indifference to, or ignorance of, the world outside Europe and North America. The opinions expressed here seem to be based on a kind of docile acceptance of the American Empire, the Mafia, the CIA, and the Moonshot. Not even the advocates of the normative position (Planning is Good for You) raise any questions about who will pay for all the future comfort that is to be generated by something called “Technology”.

The arguments for planning, for controlled progress rather than random change, are skillfully made by many of the participants, and the implications of planning, such as the abandonment of 19th-century liberalism, are made evident. None of the members of this conference suggest a return to laissez-faire attitudes. However, only one, Paul Davidoff, raises the question of the present, and continuing, inequities in the distribution of social goods within the USA itself, and none do so with respect to distribution outside America. It is conceivable that the system current here can continue to operate without continuing to draw heavily on the resources of the world. As technology proliferates, the drain of wealth towards America increases. The future could contain the decline and fall of the Empire, whose apogee might well be more in the past than in the future. In any case, as Mr. Davidoff says, “The people involved in discussing the future should see that the issue of distribution—of who gets what—should be made explicit and not constantly swept under the carpet.”

This book has been edited magnificently. Mr. Anderson has not only given the most interesting points in the discussions, he has aided a bibliography related to the issues discussed, and an adequate index. It is a valuable contribution and should be carefully studied by anyone interested in planning and architecture, especially by planners and architects, who will surely find many points of interest in it, other than those mentioned here.
The models shown on these pages are assemblages of plexiglas, bits and pieces of machinery, neon tubes, and parts of old TV sets. Although the results are entertaining and handsome, that was not the primary intent; for these models represent a city planning study of the transportation network, harbor facilities, and related urban amenities likely to be generated by a proposed, two-mile-long suspension bridge that will connect Sicily with the mainland.

The study was carried out by Theodore Waddell, an American architect living in Italy, and the models were constructed in collaboration with Michael C. Cunningham. "A project is no longer fixed, resolved in detail,drawable and showable to a client," Waddell said recently. "The city is a vibrant place, dynamic. It is a curature, only partly subject to analysis." In a sense, as Arthur Drexler of New York's Museum of Modern Art put it, Waddell's project is an "undesignable city." All that is really predictable about the future of cities is the inevitability of change; and so an architect may be able to convey a certain amount of "information about organization, density, variety, and overall massing, without trying to give precise form to what is still ineluctable."

Although Waddell did not try to give a precise form to his new urban complex across the Straits of Messina, there are clear analogies to be made between his philosophic concept of changeability and fluidity—and his choice of "fluid" neon tubing to represent traffic flow: for these lines of light (left) are, of course, wholly reminiscent of some of those time-exposure photographs of city streets, showing the nervous motion of automobile headlights at night. And his choice of bits and pieces of machinery (right) for his close-up model of the Centro Interseamb—by which he means an "automated port and directional center"—is an aesthetic and formal decision also, and a good one.
The large model (right) has been mounted on a mirrored surface to suggest the watery base of this new city—and the effects are stunning. This is meant to be a new sort of science-fiction Venice, a city in which different systems of transportation and communication have been sorted out on different levels and in different ways.

How does one design an undesignable city? “A comprehensive design methodology must reconcile fact with feeling, the quantitative with the unforecastable, the calculable with the spontaneous,” Waddell says. “It must do it at the beginning and at every point along the way.”

In other words, Waddell, despite the science-fiction idiom of his project—or, perhaps, in keeping with it—is more than a little romantic in his approach. “Design methodology,” he says, “has reflected the change in scale and complexity of today’s problems. It has grown from an intuitive art to a sophisticated science.” But not, apparently, for him: “All too often, our design methodology ignores the human as a warm and often wonderfully irrational being. As projects grow to the point where the size of a man can no longer be seen on a plan, it is easy to forget he is there.” Quite; and Waddell is, clearly, a most articulate spokesman for humanism in urban design. But how does this spectacular project reflect his humanist concerns?

The answer is that it does by omission. “Design methodology is a learning process,” he says. “In fact, a ‘completed’ project does not exist. Urban planning is an endless process of design and redesign, evaluation and re-evaluation.” To Waddell, the idea of ordering the lives of human beings in a projected city would be presumptuous. “Between such calculable elements as the handling of parking, industry, commerce, etc.,” he says, “there lie as yet unknown spaces and forms which will house man as a human being, his acts and activities—in short, his life.”

Views of larger model, mounted on a mirrored surface, show continuous neon-tube traffic arteries, with docks, parking silos, industrial facilities, and other amenities plugged into the traffic stems. The organic forms of the project suggest—indeed invite—unpredictable future expansion and change.
"It is a basic premise of this study that urbanization is inevitable and that city life is desirable," Waddell says. And he goes on to discuss the problems and their possible solutions: "Surging needs for systems engineering, cybernetics, and low costs through industrialization are set against the correspondingly growing need for humanization. On the one hand, our urban areas, hopelessly striving to achieve order against the relentless swell of needs and numbers, cry for larger, more mechanical, efficient—and less and less subjective—intrasystems. They need better and increased research and forecasting to serve and free mankind.

"On the other hand, however, technology may make a city work, but it cannot make a city. A city teams with life, human dialogue; it is the echo of all man's emotions, his successes and his failures.

"It is not sufficient to let out intrasystems as though they were part of some gigantic pump, efficient to perfection, handling huge quantities of inanimate flux."

So this project is no "mega-structure," no "machine for living in"—for all its mechanical aspects. It is an attempt to convey, in poetic form, "certain qualitative attributes...which need to be developed and conveyed without pretending to be actual solutions. The graphic and plastic expression of these abstract feelings." Waddell goes on to say, "calls for new visual languages beyond the traditional urbanistic tools...They must spur our imagination to what life could be like without telling us in literal terms how it will be. The spirit of spontaneity is urgently needed to be felt in the project; it must be developed and communicated in the design methodology in an equally spontaneous way."

PHOTOGRAPHS: Balthazar Korab

The scale of the larger model (right) is approximately one foot to one mile, so that only basic organizational notions could be suggested—i.e., traffic flow, location of existing or proposed structures, densities, etc. Yet the images created by lights of different intensity and shapes reach out far beyond the purely informational toward a poetic vision of a new kind of city."
When blacks were slaves on southern plantations, liberal northerners consolled themselves with clever rationalizations about the comforts provided the "coloreds," and the happiness they enjoyed in their "own little areas watched over by (generally) benevolent white owners."

To further reconcile slavery with Christian teachings, missionaries were dispatched to obtain first-hand statements from "boss leaders" who, indeed, said in their own words that they were "carefree and contented people."

Since those early days, largely because of economic reasons, slavery and the plantation have changed form. Now we say deprived, underprivileged and disadvantaged for slaves, and ghetto or "the community" for plantation. Ghetto dwellers are supposed to have all rights of other citizens, but since blacks do not have such mobility, America, consistently Christian, has moved to salve conscience once again.

Immediately after fraudulent attempts failed to get blacks off the latter-day plantations and into the mainstream, original missionary rationalizations were updated. Black spokesmen were found who screamed at TV cameras that blacks wanted no part of the mainstream outside the ghetto. Under not-so-gentle prodding from new missionaries—now known as white liberals—some black "boss leaders" actually developed rational theories for not leaving the plantation.

One very popular theory is that confinement in all-black ghettos equals power—that allowing blacks out would deflate the power since there is a direct relationship between the number of blacks per square foot and the power enjoyed. This theory was developed by

Mr. Funnye is director of planning for the National Committee Against Discrimination in Housing, and principal in the firm of Funnye Associates, Architectural Engineers and City Planners, Brooklyn, N.Y. He is also a lecturer and design critic at the Pratt Institute's school of architecture. Idea Plan Associates, mentioned in his article, is a nonprofit organization concerned with urban planning. Mr. Funnye was one of its original founders, and is its Executive Director.

Dr. Frances Piven, a white female from Columbia University's liberal School of Social Work who, strangely, has assumed the role of chief intellectual advocate of black manhood. Piven is usually assisted by a white male, Dr. Richard Cloward, and, as a team, they have been leaders in the ghettos-are-good for blacks school.

One of Piven's main theses is that black men need time to develop full "manhood," and that mixing them up with whites at this point in history would be premature. They need the security of the ghetto.

**The separatist line is a very popular one among white media people.**

Black "boss leaders" have outdone themselves in speaking for "the community" in furtherance of ghettos forever. They were only supposed to back up white separatist notions and, as a spin-off, enjoy such other benefits as accrue to "leaders."

However, the new separatists have gone even further into the "militants as entertainment" bag. TV discussions on raising black armies, forcing a separate state, etc., provide a certain thrill for whites much like what the colonists got from watching Africans doing a war dance with paper spears. The white liberals appreciate this additional dividend and blacks who are suckered into such performances are rewarded with return engagements on prime TV. Their presentation is solely along the "hate whitey—we got our own bag—your house is burning down" sort of thing, much of which is true certainly. (But does a revolutionary army leader announce detailed plans for expansion of his army over the enemy's communication lines?)

The very nature of most performances belies seriousness—they call for no program, not even an "unreasonable response," no action, and, worst of all, are based on rather flimsy mandates.

There are other less sophisticated versions of the "ghettos forever" theory, but most hinge on the assumption—loudly backed up by chosen spokesmen
— that blacks now regard themselves somehow as natives to the ghetto, that they really don't care much for having their own little plot of land, with green grass and fresh air, not to mention good public services, safe streets, access to jobs, etc.

Some brothers have become so caught up in mumbolistic rhetoric that even when recalling "Africa and black heritage" they forget that blacks in Africa had all the green grass, open space and pollution-free air in the world, while American whites are mostly descendants of people who came from dim, dark, damp, smellier, overcrowded European ghettos. If anyone is to "reassert his heritage" by being confined to American ghettos it should be . . . . Anyhow, once the "boss leaders" got the cue about which lines would insure maximum media coverage, they were off and running.

They pushed ghettoization with a vengeance, denouncing everyone and anyone who suggested, even indirectly, that blacks were getting the shaft in ghettos while non-ghetto areas at least enjoy some of the fruits of . . . . Attending schools with whites became a "white thing," in addition to living downtown (outside), or studying economics.

While intellectual guardians of the black boss, of course, raked the cream of this new direction. They published hundreds of articles on how whites were generally benevolent and kind and good and just and would give money for housing, welfare, etc., so long as no one "pushed integration," especially in northern cities and suburbs. Dozens of new urban alternatives poured out of universities—all justifying a sort of updated Atlanta Compromise (recall Booker T.'s separate fingers theory.)

While one can understand and even sympathize with the few brothers who are used as tools in the imprisonment game, it is less easy to excuse some of the absolutely moronic nonsense coming out of supposedly intelligent white media.

Much of it is not even vaguely camouflaged. In August of 1968, a "planner" allegedly employed at Columbia University (again Columbia) seriously suggested that blacks could be passively led into the ultimate ambush by accepting, as their "own," black new towns built on portions of U.S. Army bases. The base, according to this "planner," would also provide employment and a feeling of security (again security). In further demonstration of the inexhaustable arrogance of the new missionaries (friends of the Negro), he even outlined a budget and a development program complete with suggested black leaders.

Now the tragedy of all this is not the time and energy wasted in writing and reading, printing and distributing such obvious non-solutions. The tragedy is that the momentum of ghetto preservation is being translated into long- and short-range urban planning and development programs. The method is becoming the method. Urban poverty programs, Model Cities, newly updated ghetto economic development programs like the new "jobs-in-the-ghetto syndrome" (as reflected in the so-called CORE plan, sometime derisively called the CORE-Nixon Plan for Black Capitalists), and the Kennedy effort in Brooklyn's Bedford-Stuyvesant, are examples of ghetto preservation programs.

All these non-solutions give the illusion of movement, cooling the ghetto — even "involving" the militant/separatist — while, in fact, they often aggravate the basic problem.

A closer look is instructive. The war on poverty has all the fury of two giants dueling with powder puffs. It was supposed to divert pressure from integration of labor unions and divert blacks' attention from City Hall. Both objectives have been accomplished, and old-line civil rights activists are now establishment folk with five-foot desks, secretaries, and mimeograph machines on which to run off endless proposals for special projects.

When a few thinking brothers questioned the war on poverty, they were given Model Cities. It is supposed to involve the community in planning for its own neighborhood.

Here is the ultimate absurdity: who the hell ever heard of involving blacks in anything, much less city planning. New York City has had a City Planning Commission since 1937. No black person has ever been seriously considered for membership, yet badly-needed housing programs in at least three ghetto areas are being stalled while the City tranquillizes "the community" with illusions of power under Model Cities.

The Kennedy effort in Brooklyn is a kind of private Model Cities program. It seeks to fix up and bring industry into the ghetto, and do those other nice things necessary for "economic development." In true missionary spirit, the first large contract (that for architectural and planning services) went to a monumental architectural firm which is alleged to have employed its first black architect after signing the contract. Some local leaders timidly noted that the design and planning contract could have been used to develop some black A-E (Architect-Engineer) firms, which after a time would be selling services to a larger community, thus forming an economic base. The leaders observed that blacks make up an insignificantly small part of the active design industry, and that development of this economic activity was as important as allowing black trainees to participate in painting of brownstone facades.

The response was that the scale of the work required an architect-planner of stature to inspire investment, etc., so the quarter of a million dollars for this service went—while much ado was made of the employment of black draftsmen or their use in minor rehabilitation work.

The Kennedy effort in Brooklyn is plodding bravely ahead even though the Senator himself is gone.

To date, they have planned a superblock, used 32 Bedford-Stuyvesant craftsmen and 272 "B-S youths" to rehabilitate 394 brownstones (exteriors only). They are fixing up an old bottling plant (abandoned several years ago for good economic reasons) as a multiservice center, and they hand IBM's moves to construct a plant "in the community." For all the fanfare, the plant is not an economic boons--strap of the ghetto—it will provide jobs only, not investment or ownership potential. The plant is close to workers of the "B-S" ghetto, but why all the concern to bring new plants and national industries into the ghetto? That's where the least land exists, and where problems of relocation are most severe.

Neighborhood people in candid moments express grave doubts about the investment, noting that blacks can travel to jobs anywhere in the city, or city-fringe for that matter. That if the Kennedy people really wanted to be helpful, they could have bought the Brooklyn Navy Yard and turned it over to the community corporation to develop. That IBM, like Xerox in Rochester, could have built the plant and turned it over to the community with a guarantee to purchase all products for the first ten or fifteen years, if they wanted to get serious.

The most recent ghetto preservation scheme is one close to the heart of President Nixon—and Rosemary Gunning, New York Conservative. That is the CORE plan, essentially a "self-help" project to pool ghetto resources with government subsidies in so-called Community Development Corporations.

Broadly, these CPCs would be responsible for everything which is now done in black communities by anti-poverty, Model Cities, Medicare et al as a sort of umbrella coordination-direction. The bill, H.R. 18715, proposed in the last session of Congress, aims at creation of ghetto jobs in the ghetto. The sole unique quality is a mechanism for individuals from the ghetto community to participate by purchasing shares or by sweat equity (work).

One source estimates the cost of carrying out the proposal's objectives at $20 billion, a reallocation of economic resources that has only happened during major war mobilizations. Few
have any illusions about this proposal being taken seriously either by government or local people. A few brothers, not those of mini-vision, have begun to see all of these programs as divisionary at best and, at worst, as an updating of that old plantation mentality.

Some of these brothers only a few years ago were mesmerized by the West 114th Street demonstration project in Harlem, which demonstrated that if one had $6.5 million one could rehabilitate 36 buildings for 380 families without moving out a soul and only raise the rent 30 or 40 per cent. The full cost of this demonstration has not yet been made public. (To be fair, I should point out that the outlay included money for social services—construction of a day-care center, and counseling in the care of rehabilitated buildings.) But even if we use the low figure of $6.5 million for 380 families, it is over $17,000 to insure continued confinement in what one black police inspector calls the worst crime area in the city—where each night at least three locks and a police bar are clicked on each of the newly rehabilitated apartment doors; where older ladies dare not venture out after dark, except in groups of two, three or four; and where, even by day, a varied assortment of criminals and drug addicts intermingle with children at play on this demonstration street. This is "security"?

114th Street is more or less typical of the "security" of ghetto confinement. It seems that the only people who are able to romanticize the urban ghetto as a power base or as an incubator of black manhood are people who don't have to live there—people like Roy Innis who moved out years ago, Fran Piven who never lived there, and preachers and politicians who continue to run their game on trapped subjects and maintain a ghetto address as fronts—and still others who recall the glory days of the twenties when Harlem was the city's brothel and its streets were safer for everybody because they were used by whites.

If there were any relationship between blacks per square foot and power enjoyed, Harlemites would be the most powerful people in the world. Last time heard from, they didn't even have a Congressman and were forced to accept from New York City a sewage treatment plant rejected by even the weakest white community. Big universities, which they do not attend, were gobbling up their real estate and being paid millions of foundation dollars just to acknowledge the existence of "the community." Its politicians have sat flat-assed while a city-owned university in its midst remains lily-white and yearly hands out thousands of free automatic "middle-class" admission cards to white people who will, a few years later, mournfully "lament the lack of qualified black people to fill positions of importance." This is power?

It is way past time to call a spade a spade and get on to where we have to go. First, blacks in America do not regard the ghetto as their special preserve.

While all get a certain special feeling from acknowledgement of African heritage, none is seriously thinking of returning to Africa—even if the African brothers wanted them to. The fact is that the black man in America is as western in values and orientation as the western white man. He has the same standards of success, moral code and gods, both secular and otherwise. He seeks access to the same system of rewards and aims to provide his family with the same modicum of security.

When helplessly trapped in a low status, he feels as frustrated and angry as any other man. And while he does not reject blackness and community (self-seeking separatists notwithstanding) he sees that a community of culture and spirit is not dependent on physical confinement. Moreover, even before the planners noticed, the word was already out that manufacturing jobs in the city were going out to the suburbs. Pitifully inadequate reverse-commuter car pools have been going from Harlem to Westchester and Putnam Counties for years. NCDH (the National Committee Against Discrimination in Housing) recently documented the widespread character of this trend and predicts that it will accelerate in spite of puny efforts to the contrary. Chicago, Detroit, St. Louis, Baltimore, Philadelphia and San Francisco are just a few of the major cities experiencing rapid dispersal of jobs in manufacturing, trade, and personal services.

Blacks have tried manfully, and to little avail, to hold on by car pools and reverse commuting. NCDH studies show that reverse transportation is not available, or too time-consuming, and too expensive. The NCDH study bemoans efforts to bring jobs into the ghetto and says future job creation is going to be primarily in suburban areas, but the unskilled population is going to be more and more concentrated in central city ghettos unless there is a national strategy of deghettoization and movement of many nonwhites to outlying areas.

Deghettoization—a designed and deliberate process for programmed elimination of the forced urban ghetto—was first developed by Idea Plan Associates more than four years ago. Essentially it involves a two-pronged attack on vast ghettos. Ghettos exist at least in part because of poverty—not only group poverty, but the sum total of individual poverty, and individual poverty is eliminated by a good job followed by better housing choices, usually outside the ghetto.

Cities have, over the years, developed very good mechanisms to transform relatively poor, rough people into qualified members of the middle class. Even the smallest city operates at least one junior or senior college—usually free or almost free—and a host of "special program schools." These systems worked in urbanizing the present white middle class but have been preempted by established "elitist" or would-be elitist feodals and special interest groups to the detriment of blacks and Puerto Ricans (who ironically constitute the bulk of raw material for any new urban middle class).

New York City, because it is biggest and claims to have the worst problems, may be a good illustration of a city committing suicide with its urbanization resources. Its famed university system contains an estimated 150,000 students, only 2 per cent of whom are black and Puerto Rican. Preliminary attempts of the new underclass to cut into the action are met with all kinds of evasive delaying and diversionary mumbo jumbo cloaked in finest academic rationalization about why blacks are not qualified to participate more fully in this university of all the people.

While over half of the city's civil service workers, including its teachers, are products of the city university, its admission standards have been escalated toward keeping down the number of "undesirables." An institution which should be narrowing a very dangerous gap is, in fact, moving full steam ahead in widening the gap and, of course, making more catalytic the eventual confrontation.

There is an alternative: Set aside at least 25 per cent of all city university seats for blacks and Puerto Ricans. One quarter of 150,000 is 37,500 seats. If after two to four years 25 per cent of that figure were graduated with A.A. or B.A. degrees, there would be nearly 10,000 new taxpayers. Five years after the start-up period, 50,000 black and Puerto Rican families would be subtracted from the welfare-services-consuming class and added to the revenue-producing class. At 2.5 children per family, this would mean 175,000 people. Given present policies, one could expect the welfare burden to increase by 175,000 persons during the same period.

It is not expected that professors at C.U. will welcome this kind of cost-benefit approach to a city problem. One could, of course, question whether their "welcome" is relevant. They are, after all, only employees of the city—contrary to popular opinion. They do not own the system, and their desires for an ampli-
fled status through "elitist" developments—unrelated to requirements of real life—do not serve the city's interest. The same kind of directed approach must be applied to all other systems directly owned, or indirectly influenced by the city.

Deghettoization implies a political savvy not yet evidenced by ghetto people who now only vaguely appreciate the importance of their political weight. It will require a widely-developed system of political trade-offs and group bargaining in City Councils and Boards of Estimate downtown, not uptown fiddling around with peanuts in Model Cities or poverty programs.

Deghettoization requires that ghetto dwellers be converted to city dwellers with citywide concerns and involvement at least on a political level. Ghetto dwellers must turn outward to the larger city, not inward.

Housing policies in deghettoization must be regional. Some things are immediately obvious: 1) Cities cannot continue to contain a disproportionate share of the regional poor; 2) suburban land policies must be thrown out or sharply brought around to the new realities, namely that regional land and policies thereof are concerns of all the region's citizens (states with big-city problems and uncoopera tive suburbs should take back their zoning powers from the cities and suburbs and, on a state level, zone areas to maximize opportunities and choices for all citizens); and 3) building codes should be treated just like zoning ordinances—abolished and/or returned to state hands with only the barest requirements consistent with health and safety (building codes are often used to prevent the construction of low-income housing).

These requirements would be certified as met when the drawings are stamped or sealed by a registered engineer or architect. There are other impediments to the rapid production of housing required for deghettoization—such as labor shortage, or tax structures which favor unbuilt kind and speculation. State zoning could fix the latter, while a halt in subsidizing of union discrimination, and nationalization of the apprentice-training programs, would fix the former.

With preliminary steps laid out, the metropolitan area that wants to plan rationally can get on with solving its ghetto (housing) problem through planned deghettoization.

To illustrate: Take a sample metropolitan area of 1,600,000 people, including a ghetto of 400,000 (a metropolitan area is deemed to include a central city and its inner-ring suburbs). Using a system of planned new towns in the outlying areas, housing could be built to provide flexibility for deghettoization.

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<td>400,000</td>
<td>1,200,000</td>
</tr>
<tr>
<td>300,000</td>
<td>-300,000</td>
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By building one new town of 400,000 (or two of 200,000 each) in the outlying area and moving in 25 percent of the ghetto and non-ghetto metropolitan population, then moving the remaining ghetto population into vacancies created in non-ghetto metropolitan areas, by the 300,000 white moveouts we would theoretically have zero people in the old ghetto. Very conceivably, all residents of the ghetto will not want to move out, and the success of deghettoization does not require it.

If only 50 per cent chose to move, either to outlying areas or into the filter-down housing, it would still result in drastic loosening up of the rental market, requiring landlords to compete for tenants or go out of business. Thus, even ghetto dwellers who elected not to move are benefited by deghettoization. The new town component is not essential to deghettoization but does afford a compacted controlled housing situation, and from a planning standpoint in terms of land economies, anti-sprawl measures, efficiency of scale, etc., would seem to be most advantageous. But the important thing is that the housing surplus is built for and directed toward the goals outlined.

The city could take several internal steps to enhance the benefits from deghettoization.

Surplus in-city land, federal facilities, or closed military bases are excellent sites for in-city new towns of 50,000 to 60,000 persons for major cities; 10,000 to 20,000 for middle-sized cities. In 1967, partly at the suggestion of Idea Plan Associates, the federal government did a study of the quantity of federal land that for all practical purposes is surplus land within the city. This study has not yet been released, but this land is thought to be considerable—in one large Eastern city some 1,800 acres have been located in five government installations of various sizes, either partly or totally abandoned.

To sum up deghettoization benefits:
1. Reduction of city rents; stabilization of the housing market.
2. Better flexibility in in-city planning and development.
3. Enhancement of the city as a viable, balanced place to live should encourage return of the middle class.
4. Accelerated reduction in dependent welfare population both through increased urbanization and access to suburban-based employment.
5. Reduction in cost of city services provided to former ghetto.

To deghettoize, we must close out the present phase of thoroughly inadequate response to city-metropolitan problems of city-metropolitan scale.

Black separatist "entertainers" should not let themselves be used to deceive whites into believing they can solve "the problem" merely by updating old plantation techniques.

Brothers and their friends who know better should stop romanticizing Harlem and the other unsafe, spirit-killing, ambition-stifling, anarchonic residential pockets of blight and neglect which "militant entertainers" now call "our community."

The crisis calls for a newer, higher form of militancy—one that avoids getting snared in the big ball where the power is, and that's not in a model neighborhood headquarters.

Any community which turns away from the real fight—the fight at city hall, in state capitals, and in Washington—and turns in on itself will certainly lose out to find itself out-boxed again.

Good reasonably-priced housing, access to jobs and job opportunities, fresh air and green grass—inssofar as there is any left—should be shared by all equally. We are now talking about survival as men running free, not people consigned forever to modern plantations just because some men with minivisions believe it the right course, or lack the courage to try what they know to be the hard course.

Perhaps what the country needs most of all is to acknowledge that blacks are here to stay and intend to force solutions to problems of residual slavery. It is tranquil to toy with non-solutions such as community development corporations, Model Cities, anti-poverty. If "the community," meaning black America, is to participate in planning for itself, the tools are already there on the urban scene, citywide— the city council, city planning boards and commissions, boards of education, central and local, regents, state education systems, etc. Diversionary programs sap energy and merely give a fleeting illusion of sharing in power. The new militancy will correctly assess these diversions. The momentum of the civil rights struggle was yielded for too low a return—two or three billions in urban programs is peanuts. An updated and enlightened militancy will recognize this and move toward creation of a real urban lobby at least as powerful and tenacious as the gun lobby. Blacks can form the nucleus of such a lobby.

Blacks need not reject interim diversionary programs outright. A small sub-committee in the community could be left to haggle over and amuse themselves with division of the crumbs from the tables of power. But the real thinkers will keep their eyes on where it's at.
TEACHING MACHINE FOR DRAMA

One of the world's most versatile instruments for producing drama of all kinds has recently gone into operation on the campus of little-known Birmingham-Southern College in Alabama. No more widely known nationally than the college itself are the men responsible for this unprecedented theater: Drama Professor Arnold Powell and Architects Warren, Knight & Davis of Birmingham.

Because drama teaching involves production of works from a wide range of periods, as well as television performances, Powell wanted a theater in which changes of all degrees—from minor adjustments in the stage area to total rearrangement of audience and performers—could be made quickly and easily. The changes are not made with smoothly operating mechanisms—as in Gropius's "total theatre" schemes of the 1920s—but with student muscle power.

The college administration also had some definite ideas about the capabilities of the theater. Since this is the only major investment this small institution could make in performing arts facilities, it will have to provide the campus (and the Birmingham area) with sorely needed space for ballet, chamber music, film, lectures, and other events suitable for a small auditorium (370 seats, maximum).

At the outset, the college and the architects considered turning all functional aspects of the design over to a recognized theater consultant, but they soon decided to analyze the whole problem from scratch themselves, relying on Powell's two decades of drama teaching experience, and on the architects' energetic approach to research. (They did bring in acoustics consultants.)

The solution they came up with offers an amazing range of possibilities. Performances can take place almost anywhere in the room—or, in the case of television productions, virtually all over it.

To permit this freedom, lighting had to be available from almost any angle at any point. The lighting loft, therefore, covers just about the entire theater. It
is like a vast 7-ft.-high room, with wells in the floor, spacious enough for groups of students to observe the operation of lighting equipment.

Of course, this overall lighting loft ruled out the possibility of a fly loft, from which scenery could be suspended. And the chance to bring scenery in from the sides was restricted by the semicircular cyclorama — with a generous lighting pit in front of it — which Powell considered essential for background effects.

**Scenery from the depths**

The designers could have accepted these restrictions and settled for the rudimentary types of scenery that many other open-stage theaters are limited to. Instead, they developed a unique "split revolve" turntable system (right), with which whole scenes can be moved into place from below the stage.

Complex as it seems at first glance, the system is technically simple, involving only two turntables — each 40 ft. in diameter — and one half-circle lift connecting them. The moving parts had to be fabricated to very close tolerances, of course, to provide the unbroken surfaces required, for instance, by dancers. Specially designed ball-bearing turntable supports (instead of wheels) and thorough sound insulation of machinery make the whole operation inaudible from the seating area.

**Electronic acoustics**

It was obvious from the beginning that the variety of performances taking place in the theater would call for changes in its acoustical characteristics. It would have been possible to alter acoustics somewhat by mechanical means — such as closing some openings in the lighting grid or erecting acoustical shells for choral groups. But it was decided instead to make use of electronic systems now available and widely used in the recording industry, which add delayed sound reproduction to direct sound from the stage.

By merely turning dials, it is possible to make greater changes in sound quality than moving
panels could provide—and do it without interfering with lighting or air conditioning. When the complete acoustical system designed for the theater is installed, it will be possible to change "scenes" acoustically (within limits) to simulate a cathedral or a drawing room—or to tune the hall properly for singers, instrumentalists, or lecturers.

**Rearranging the audience**

The remarkable number of ways in which the seating and performing areas can be arranged is achieved with relatively simple means. Except for the last four rows of seats, which are fixed (but not always used), all seating is on wagons, which can be lifted slightly on special dollies and pulled around the room by hand. A crescent-shaped area in front of the stage turntable can be lowered—either to establish the proper levels for seating or to form an orchestra pit. When it is raised to stage level, this area serves either as an extension of the playing area or as a base for seat wagons.

During the design phase, Professor Powell spoke about the inherent danger in trying to obtain a theater that will do everything; that it might "do nothing well." But the theater has now been in use for several months, accommodating ballet, chamber music, and drama—using both variations on the "proscenium" arrangement and an apparently haphazard one (right) in which audience and action are mingled. Apparently Powell and his architects—a team entering this field for the first time—have produced a theater that will do many things very well.

**FACTS AND FIGURES:**

FOOTNOTE

Machine for reading in—Architecture students in Cambridge, England, recently presented this cutaway drawing of the new History Faculty Building to James Stirling, its architect. Readers willing to look up our detailed presentation of Stirling's library (Nov. '68 issue) will find all the relevant clues. Drawing: Pedro Geddes.  

HYBRIDS

WHERE IT'S AT . . .

"Model 30," a model home in the Terra Loma subdivision, Daly City, Calif., must refer to that age over which no one can be trusted.

Marketing manager Pieter Goedewagen hopes to sell the Model 30s, minus their gallery of Pop-Art interiors (above), to "couples or starting families."

Created by Designers Gerald Reis and Michael Manwaring, the psychedelia, plaster bands, and swinging bicycle may send squares scrambling for Models 40, 50, and up. But "the kids—the little kids, seven or eight years old—they dig it," says Goedewagen. "They have no hangups about interpretation."

. . . WHERE IT'S GOING?

The plastic-shrouded gentleman (below) on the corner of 47th Street and Vanderbilt Ave., near Manhattan's Union Carbide building, is trying to tell us something about design and the future of living in central cities. His splendid isolation points one way out of our dilemma: the portable, individual environment, with piped-in sensory stimulation, i.e., the odor of sauerkraut. The plastic shield also serves as a buffer against pollution and as insulation against heat loss, so essential to the vending of hotdogs.

RENEGES

COLUMBIA EATS GYM CROW

After an announcement that it would conduct a poll of "community leaders" to decide whether to continue with the controversial gym in Morningside Park, Columbia University threw out the idea (on advice that the community had already made its will known)—and then threw out the gym, too. On March 3, the trustees unanimously approved Acting President Andrew W. Cordier's recommendation that construction of the gym on this site be dropped. (A factor in the decision may well have been the view of I. M. Pei & Partners, recently appointed master planners for the university, who strongly advised against the park site.)

At this point, the university announced its readiness either to restore the site to its former condition (which is impossible, says the community, since you can't cement the rock back together), or work with the community on a plan to improve the park. A serious and detailed plan for the park (and adjacent neighborhood to the east) was prepared by the West Harlem Community Organization Inc., with technical assistance from ARCH, and released at the end of October. It made a number of interesting suggestions—for a public amphitheater at the gym excavation, a soul food garden, a multipurpose rink, and in general a more intensive 18-hour use of the space to answer the needs of the community and simultaneously make the park safer. But Columbia apparently
doesn't mean that plan (above). If AIBCH will go to the Parks Department, says Frederick Van Dyk, Columbia's vice president for public affairs, then Columbia can consider some of these ideas. "But it's not our park, it's not within our jurisdiction," he says. Harlem will see the irony in this careful attention to legal niceties.

Meanwhile, I. M. Pei & Partners are seeking alternate sites for the gym, and considering the combination of other uses with the gym, for maximum use of a site. In addition, Columbia has announced that it will not go ahead with further expansion projects until alternate housing is available for displaced residents.

Columbia's loss, in addition to face is about $2.5 million—for plan's, excavation, and work contracted—although they expect the total to be higher since building costs for the new gym will now be higher. The university is now sending 15,000 letters to those who donated money for the $13-million gym, asking that their gifts be available for another site.

DESIGN

KINDER CASTLE
Engelbert Kremser, young architect of Berlin, has thrown away his T-square and triangle. The children's play castle (model—bottom right) for the Bund Deutscher Pfadfinder (German boyscouts) will be the second example of his Erdarchitektur to be built, the first being a Gaudi-like terrace added to the back of a Berlin house (below). The play castle will be built this fall in the Märkische Viertel, a massive new housing development now nearing completion.

Putting people in cubes, Kremser believes, can only be justified economically, at the expense of the occupants' mental stability. He therefore produces his lightweight concrete shells from forms sculpted in earth, rejecting anything as rigid as wood. The shell, 17 ft. high at its peak, can be climbed up and slid down. It will enclose toilets, storage space, the boy- scout leader's office, and an 800-sq.-ft. play area.

PEGASUS TAKES OFF
The quest for a new corporate image by the Socony-Mobil Oil Co. three years ago began with retaining Architect and Industrial Designer Eliot Noyes as design consultant. Mobil then dropped Socony from their name, and Noyes brought in Graphic Designers Chermayeff & Geismar Associates to make it look good. He then designed a sleek new prototype station, with service accessories, that might be adapted in size and surface finishes to conform with local needs.

Experimental stations were first tested in Connecticut and New York (above) and met with such dealer-consumer success that Mobil will now adopt the Noyes design as standard for all stations in the U.S., except where prohibitive planning and zoning will require them to retain their Colonial or Ranch styles.

Also, by the end of 1970, 61 new stations will be built abroad, on a test basis—three in Latin America, 31 in Europe, seven in the Mediterranean-West Africa region, and 20 in Japan, Australia, the Philippines, and Singapore.

The Flying Red Horse symbol, too, comes in for some up-grading. He has been "slightly modernized" by Chermayeff & Geismar, and Mobil has named the new station Pegasus.

PRIORITY

SUMMER BOMB-IN
The following, from Yale University, describes a course being offered this summer in the Department of Architecture:

"This institute is directed to the educator concerned with urban problems. The first three weeks of the course will deal with the analysis and design of fallout shelters. The remaining two weeks will be spent studying the contemporary tools being used to cope with urban problems." These "tools" are listed as computer programming and games. "Several games will be presented and played. A round table, composed of the participants and the faculty, will then close the institute by making recommendations to the Office of Civil Defense on the pertinence and projected use of these innovative tools for the pursuit of civil defense."

Meanwhile, Pentagon planners have indicated they do not need Yale to show them how to play their own game. They hope to double their funds—to $24 million—for bomb shelter research in the coming fiscal year.

ROUND ONE
The largest undeveloped, privately held real-estate parcel within ten miles of New York City's Times Square was, until last month, the scene of a heated contest over national priorities: relaxing the tension in our cities, or bracing
our military posture. Cities won.
The 274-acre tract is outside Tenafly, N.J., on the Hudson River Palisades four miles north of the George Washington Bridge (below). It is owned by Norman E. Blankman who wants to build on it a community for 4,000 families and corporate homes for businesses. The other contestant was the Defense Department which had earmarked the land for an antiballistic missile site. President Nixon's decision not to defend the cities presumably removed the Pentagon from contention.
The Blankman scheme (bottom), which will require a zoning easement from the Tenafly planning board, was developed by Candeub, Fleissig & Associates. (Blankman would retain "internationally prominent architects" to design the individual buildings.)
Eight highrise apartment structures will be grouped in a fan shape around a cloverleaf of Route 9W and the Palisades Interstate Parkway. They will rise from a stacked-deck parking system with top-deck landscaping for recreational use. Utilizing only 26 per cent of the available space, East Hill, as it is called, will leave much of the remainder as natural woodland, and would serve as a kind of massive gateway to tiny Tenafly. And how Tenafly will react to that remains to be seen.

ORWELLIAN OLEAN
The next time you are in Olean, N.Y., 65 miles southeast of Buffalo, remember that Big Brother Is Watching You.
Eight canister TV cameras, mounted on lampposts 20 ft. above Union Street (right) spy on the five-block central business district and any of Olean's 22,000 population who stroll into camera range. Some laugh at the cameras and others scowl. But even the scoffers have objected only to the fact that it doesn't work as well as it would in, say, "Mission: Impossible."
At least two break-and-enter artists committed burglary after scanning the layout and finding that the cameras' eyes have blind spots. It was "some hours" before the police, viewing receivers in the comfort of the station house (below), were aware that Olean's peace and tranquility had been disturbed.
But if the cameras' eyes are not exactly relentless, the interference on the receiving end is. In the daytime, faces cannot be identified at distances of more than 50 or 60 ft. and, at night, the screen is an Op-Art display of curving black and white lines, through which little more than automobile headlights can penetrate.

Michael Arnold, general manager of Olean's Allband Cablevision Inc. and creator of the system, says he has that licked. "We'll change the location of the cameras to cover back alleys and blind spots, and our new cameras will be equipped with zoom lenses and will pan from side to side." The zoom lens he has been experimenting with, he says, "can read someone's watch at 700 ft."
Perhaps someone should zero in with the zoom for a new "reading" of the Fourth Amendment.

DESIGNER DIES
Paul McCobb, whose modern furniture was held in highest esteem by both museum critics and furni-

ARTS CHIEF OUT
Roger L. Stevens, a dedicated and hard-hitting advocate of government support of the arts, has been dropped by President Nixon as chairman of the National Council on the Arts and the National Endowment for the Arts. As of this writing a successor has not been named.
Stevens' recent warning against America's "radical plunge into a fearsome and sterile technocracy" followed four years of spirited, and often acid pleas for increased congressional appropriations, most of which were not forthcoming (April '68 issue).
Appointed by former President Johnson at the height of what was called "the cultural boom"—described last month as "largely an explosion of words" by W. McNeil Lowry of the Ford Foundation—Stevens leaves that post in the midst of a general crisis in the arts that has seen the Atlanta Municipal Theater go bankrupt in its costly new arts center, and that has produced an announcement by the Lincoln Center for the Performing Arts that it may be forced out of business.

Isaac Stern, violinist and member of Stevens' National Council, said he and others may resign. "I get the impression that this is considered a political appointment. This to me," said Stern, "shows a lack of respect for the job's importance and makes a mockery of its meaningfulness."

PEOPLE
ENGLAND GOES SQUARE

The British are about to change two important indices to their ancient way of life. The first is a change from feet and inches to the metric system. The second is a change in that quaint, quavering old currency to a decimal system. Between the two of them, done simultaneously, the changes are likely to cause some frantic hours in the building industry, especially among the estimators and quantity surveyors.

The director of a large prefab concrete firm in Britain told me jovially, "I think they're crazy; either that or they're trying to drive us all crazy." A friend of mine at the National Building Agency spelled out the kind of chaos that will exist. "We shall have to have four parallel costing systems for a time. The four include, first, the one now in effect which is shillings per square foot. Then there is the shillings per square meter which, at present, is somewhat optional. But after the imperial order to change to a decimal system in currency takes effect in February 1971, there will be a third costing system which will be the decimal pounds per square foot or per square yard. And after February of 1972, there will be the decimal pound per square meter."

But all with good cheer. For example, the Construction Industry Training Board has contributed a set of training aids to ease the transition to meters, including the one called Miss Metric, to your right.

In the currency matter, I have trouble with British money as it is. It takes several days before one knows exactly how much one is overpaying someone, say a taxi driver, although I must say the taxi drivers are remarkably honest in London. But the way in which the currency shift is going forward is sure to put a strain both on that honesty and on the patience of tourists this summer. For example, there is a new coin in circulation called "The New Ten Pence." It is the same size precisely as the old two shilling piece which continues in use—and it is the same value, officially. At the same time, it should be pointed out that a shilling is still worth 12 pence. (When the shift is completed, a shilling will be worth 5 pence, instead of 12, and the pound will be worth 10 shillings instead of 20 shillings.) This means that, at present, ten of the old copper pennies do not add up to be worth the New Ten Penny piece; no, it takes 24 pence. Do you have that clear? Do I have it clear?

The switchover from inches and feet to millimeters and meters involves some creeping gradualism too. First comes the building industry, with its myriad parts, then other industries will be expected to follow along. A display at the National Design Center in London has been attracting thousands of people by offering them comparisons. They can stand on a weighing scale, for example, and find out how many kilograms they weigh, rather than pounds—or is it stone? At this exhibition, I happened into the further complication of the Imperial Gallon, and had to leave, to get some air.

The motion toward all this started several years ago when it looked like the Big Frenchman was going to let the British into the Common Market. Once the impulse is born, the purpose obviously can depart, although it is fair to say that the move toward the meter would have been inevitable, in that other parts of the Commonwealth were headed that way. There can be little doubt that the United States must soon go along as well, for purposes of trade competition. We should wait, however, to see if it is going to really work. It might be that the stubborn Briton in his pub simply will not permit it. It means, you know, that he won't be able to ask for a pint of bitters; he will have to step up and order 0.4732 liters, luv.
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On the inside, partitions are kept to a minimum. This open design allows free flow of natural light and enhances the feeling of roominess. The "all glass" treatment provides a 360-degree view of the surroundings. Pleasant, comfortable views. Because Parallel-O-Bronze reduces sky brightness and sun heat transmission through the glass. And this adds to the effectiveness of the building's air-conditioning system.

Thus, the architect, Grayson Gill, Inc. of Dallas, has truly created a "joya de cerro."

L-O-F makes a particular kind of glass for every purpose in building design. Consult Sweet's Architectural File. Or call your L-O-F Glass Distributor or Dealer (listed under "Glass" in the Yellow Pages). Libbey-Owens-Ford Company, Toledo, Ohio 43624.
A medical center organized on unique lines is planned for a 15-acre site in Roxbury, Mass., adjacent to the Harvard Medical School campus. Three existing hospitals—Boston Hospital for Women, Peter Bent Brigham and Robert B. Brigham—are combining operations under a single roof and a single management. (This is not a merger but a joint venture of autonomous partners, with each hospital retaining its own physical identity, budget, staff, and special services.) The $50-million complex, designed by Bertrand Goldberg Associates, architects, has a large rectangular base raised above ground level; on it stand four wings attached to a central core. The core contains all transportation and utilities for the complex, with full automation of material handling. Broadest use of computers is contemplated in patient care. Wings will be of uneven height at first, for the initial construction of 850,000 sq. ft., and will grow unevenly, as needs arise, to fill out 19 floors and 1,400,000 sq. ft. Each hospital has its own wing, and the fourth wing is divided among them as they need space. The Affiliated Hospitals Center will replace 182 dwelling units over the next five years; one-third of them are now occupied by students and staff at medical institutions in the immediate area.
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Asked to design educational space for the year 2000, for an addition to an elementary school in Lakewood, Ohio, Don M. Hisaka & Associates have designed a space with ultimate flexibility. "Since the only certainty was the unpredictability of the future needs of education," says Hisaka, flexibility became the major goal of the design. The educational concept at the McKinley Elementary School "is one of cooperative teaching and continuous education." Other than supporting facilities—such as conference and quiet areas, teachers' work room, toilets and vestibules—the teaching area is entirely open. The L-shaped teaching area contains the equivalent of 10 classrooms on each floor. The two-story Learning Center is in a central place, with library and audiovisual materials readily accessible to students on an individual basis. Its double height is intended to tie both floors together. Construction is masonry bearing wall, with a precast double-T floor and roof system. Cast-in-place U-shaped beams are used for mechanical distribution (see section). The abundant electrical capacity anticipates major electronic advancements in teaching in the next few years. Bids were $50,000 under the budget, reports the architect, for a cost of about $24 per sq. ft., including carpeting throughout.
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The early Christian architects employed traditional clerestory windows to light the interior of large church buildings. Lacking the technology to produce glass, these ancient builders admitted sunlight and barred the elements with thin sheets of marble set into window frames.

In the Basilica of Saint Paul Outside the Walls in Rome, built in 324, sparkling marble windows are still welcoming the sunlight, unstained by fifteen centuries and the atmosphere of a modern city.

The contemporary builder needn't resort to the stone window for light, but like the ancients, he can exploit the enduring qualities of marble to minimize the maintenance and enhance the beauty of his structure.

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Los Angeles County's $23 million Olive View Hospital, with its new 800-bed medical treatment and care complex, is destined to become the focal point for one of the nation's largest health centers. The Sargent Maximum Security System is used throughout the new facility — approximately 2,900 doors in all. In addition, the new lock system secures almost 300 interior, exterior doors and detention screens in the adjoining mental health center.

The Sargent Maximum Security System prevents unauthorized key duplication: the unique six-sided reversible keys with precision indentations can't be duplicated on "corner-store" key cutting machines.

The Sargent lock cylinders are also singularly pick-resistant. Unlike conventional cylinders, which have a single row of five or six pins, the new cylinder has 12 key pins, located on three different angles, making the cylinder virtually impervious to picking or "raking."

A total of seven levels of master-keying are in use at Olive View, four more than are available in conventional systems. Since the pin split method of master keying is not used, the security of these lock cylinders remains unimpaired, even at the top, or Absolute master key level, where well over 24 thousand safe unduplicated key changes are available.

In the case of the Olive View complex, an additional feature is offered in the wide keyway of the new lock cylinder and the reversible key in itself. It cuts down by vital seconds the unlocking of doors, especially under low light level conditions. In a medical center seconds can add up to a human life.

For full information on the Sargent Maximum Security System, write to Sargent & Company, 100 Sargent Drive, New Haven, Conn. 06509. Ontario, Canada. Member Producers' Council.
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General Dynamics researched all types of flooring materials before they made their decision: an 11,000 sq. ft. wear test in an area where traffic was 4,000 people a day; maintenance, spectrographic soil analysis, light absorption tests, and a noise reduction test requiring a 35% decrease vs. existing flooring material.

The solution simply had to be "Antron". The study showed a sizeable advantage in the soil-hiding capabilities of "Antron". It further predicted a wear-life of at least 7 years in the main corridor and up to 15 years in offices, at a better appearance level with less maintenance than anything else considered.

"Spearhead" was installed in October, 1967, and since then, one particular corridor has withstood 20,000 traffics a day—the equivalent of 10 years normal wear. Despite this abuse, the carpet looks great, its colors remain bright and they're very pleased with its performance. All this with a minimum of maintenance problems: nightly spot vacuuming, weekly overall vacuuming and a reduced schedule of commercial cleaning with dry foam shampoo. In fact, the general offices look so good, there's been no need to shampoo them to date, and the main lobby requires only monthly shampooing.

The complete "Antron" story, and information on other Du Pont fibers, is available from Contract Carpet Specialist, Room 16A4, 308 E. Lancaster Ave., Wynnewood, Penna. 19096.

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The Sundberg Swingaway Chair: new nylon seating that takes the squirm out of lectures.

Here's a design that really swings — silently, comfortably, conveniently. It's easier to get into . . . and out of. Secret: The cast nylon shell swivels on a horizontal arm, pivots smoothly on lifetime bronze bearings, and the cantilevered table top provides lots of leg room.

Smooth as satin and tough as granite, the Sundberg Chair is made of a new material—cast nylon—resists cracking, chipping, scratching. Won't support combustion. Cleaning and maintenance are a snap, because the shell is static free. The Sundberg Chair is softly contoured to build in the kind of comfort that makes it easier to learn.

The shell's beautiful matte finish and very subtle changes in planes render a soft contrast of light and shadows, giving an eye-pleasing two-tone effect. And the Sundberg Chair blends beautifully with any modern decor—the perfect combination of function and high styling.

The Sundberg Chair is available in many styles. Why not write for our complete brochure: American Seating Company, Dept. AF-691, Grand Rapids, Michigan 49502.

for the Environment of Excellence
Carved Leaf Marlite adds deep-embossed beauty to any wall.

Blue Antique Marble adds elegant beauty to any interior.

Ultra Blue is a cool new designer color in Marlite Planks.

Green Fern, fresh addition to Marlite decorator patterns.

What does real Marlite look like?

Any kind of paneling your client wants.

One brand of wall paneling gives you more than 70 ways to be creative. It's real honest-to-goodness Marlite.

This modern idea-paneling can be almost anything your good taste recommends. Deep or pastel colors. Deep-embossed textures. Authentic woodgrains or tasteful decorator patterns. In fact, most people don't know real Marlite when they see it.

But, in one way, all Marlite is exactly alike. Every panel has a baked-on finish of impervious plastic that seals out grease and stains, guards against hard knocks.

So, Marlite makes sense for walls in heavy traffic areas. And for clients who are maintenance-minded, this prefinished hardboard paneling wipes clean with a damp cloth.

See what's new from Marlite in Sweet's File, or write for samples and literature to Marlite Division of Masonite Corporation, Dept. 407, Dover, Ohio 44622.
For the sake of distinction, plan ahead with Russwin customized keys

A key is a key is a key is a key.
But the distinctive design of Russwin Customized Keys can add prestige throughout your buildings.
Sure . . . they may cost more.
But really . . . you couldn't buy from a nicer bunch of guys!
Contact your Russwin distributor or write Russwin, Division of Emhart Corporation, New Britain, Conn. 06050.
In Canada – Russwin Division of International Hardware.
INSULCOR is a pre-hung steel door with sidelights. And the warmth and charm of wood. Once it’s hung, your job is done. Forget about call-backs, because INSULCOR doors won’t warp or twist or swell or shrink. Your buyers will smile, too. Exclusive adjustable vinyl doorsill insert means closure is always tight and weatherproof. Forget all about leaks. Positive magnetic weather stripping seals around the edges, honeycomb/urethane insulates through the middle. The thermal break is positive. Forget about dullness — there’s a wide variety of attractive designs. All supplied prime coated. And you can use any hardware you wish. Every material is used to best advantage. Every fabricating step is carefully controlled. Look inside our door. See why it’s so forgettable.
This is the new office furniture technology: The curtain wall as applied by Stow/Davis.

It is called Electa.

See Electa at one of our galleries: New York, Chicago, Los Angeles, Dallas, Grand Rapids. For a brochure, write on your professional letterhead to Stow/Davis, Grand Rapids, Michigan 49502.
To please all of the people all of the time, this Holiday Inn chose Newport III individually-controlled heating/cooling units.

Any hotelman knows outside temperature has little to do with each guest's idea of ideal room temperature. This calls for heating/cooling that offers individual controls—and a whole lot more. John McShain, owner-builder of this handsome Holiday Inn, called for Newport self-contained units because he needed guest-controlled air conditioning and wanted minimum installation and maintenance costs. He got it! Economies started even before the Newport units were delivered by eliminating need for a boiler room, cooling tower and central air conditioning equipment.

Project superintendent Gene Nauta credits Newport units with cutting both construction time and cost. He says, "There was less carpentry work. No unusual holes had to be provided for heating/cooling and we didn't have to drop ceilings to hide ducts." An electric connection and air vent is all it takes for full operation of Newport units. Modularized construction makes a Newport unit less expensive to maintain. Sections that can be replaced in minutes are also foolproof protection against breakdowns that knock out an entire tier. What can Newport do for you? Write Space Conditioning for the name of your Newport representative and get details on the hottest thing in heating/cooling today.


The Newport III by Space Conditioning

- Packaged terminal air conditioning unit with self-contained, air-cooled refrigeration.
- Modular design for summer and winter space conditioning; heats, cools, dehumidifies, filters, ventilates, circulates.
- Instant installation; fits into cabinet from the front, needs only electrical outlet and outside air vent for full operation.

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C. FLOORING
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D. FLOOR COVERINGS
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3. New Stow/Davis Bubble Chair catalog available on written request contains all info on expanded line of chairs for office, institutional use. Stow/Davis. Please request E-3

F. HARDWARE
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3. 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. Please request F-3

G. HEATING/VENTILATING/AIR CONDITIONING
1. 4 pg. 2 color folder on new Electric Baseboard Heating with accessories, advantages, photographic details and installation procedure. Catalog page and price list included. Bryant Electric Co. Please request G-1

H. LIGHTING SYSTEMS
1. Troff-Aire II. Air handling/heat removal, recessed lighting system. Complete data. Smithcraft Corp. Please request H-1

I. STONE
1. "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. Please request I-1

J. MASONRY & BLDG. STONE
1. Stonehenge architectural panel: a cultured stone material for inside or outside. 6 pg. brochure has pertinent data and full size color sample to show deep relief surface. Johns-Manville Sales Corp. Please request J-1

K. OPERABLE WALLS
1. "Workwall Movable Partitions" 8 pg. full color brochure, features installations and technical data. Workwall Div. The Marmion Group, Inc. Please request K-1

L. PAINTS, COATINGS, SEALANTS
2. 4 pg. 2 color folder on "Weather Chamber Windows" weatherproofing system combining Neoprene stripping with pressure equalization. Republic Steel Corp. Mfg. Div. Please request L-2

M. ROOFING/SIDING
1. 8 pg. 2 color brochure on seamless Terne roofing contains standard and seam specs. Illustrated. Follansbee Steel Corp. Please request M-1

N. PLUMBING EQUIPMENT
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4. New 1969 32 pg. color catalog illustrates electric water coolers, drinking fountains, fountain accessories; incorporates drawings, specs and rough-in dimensions for units. The Halsey W. Taylor Co. Please request N-4

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FORUM—APRIL-1969
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We're in debt to wars, floods, health services, life saving and blood banks.

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We solved a big overhead problem at Franklin County Jr. High School.

The roof.
The taxpayers in Decherd, Tennessee wanted their school to be as modern and attractive as anything around. And that's what they got. Due in large part to our Elasto-Gard roofing system. Elasto-Gard is a fluid applied, reinforced roofing system that we combine with Neogard rigid foamed urethane insulation. It allows architects to take advantage of the new plastics, high-tensile steels, aluminum, and glass in their designs. Without having to worry about the inflexibility of conventional roofing materials.

But the beauty of Elasto-Gard is more than just esthetic. It also provides an insulation with an extremely low "K" factor, and a built-in vapor barrier. Elasto-Gard is also extremely lightweight, and has excellent fire retardant, weathering, elastic and aging qualities. Add them all up, and you begin to see why people call Franklin County Jr. High School the smartest school in Tennessee.

THE NEOGARD CORPORATION
6969 Denton Drive, Dallas, Texas 75235
Boston's Faneuil Hall. "Cradle of Liberty." Symbol of our heritage. Where irate citizens gathered during Revolutionary days to protest the Stamp Act, the tea tax, and other hated issues.

When Faneuil Hall burned to the ground later, Bostonians lost no time rebuilding it to its original beauty. In recent years, it was threatened again by hasty redevelopment plans, and once again Boston went all out to save it.

Isn't it amazing how fast people with brains, talent, taste, and ability mobilize for action when our heritage is threatened?

And wouldn't it be great if Glen could get the same kind of action from the same kind of people? People like you.

You see, Glen, and thousands like him, is a slum kid from Boston's South End. Where living conditions are not only sub-standard but almost sub-human. Where Glen's future is uncertain at best.

Now, better housing and environment are not the whole answer. But, at least, it would be a healthy start.

That's why we'd like to stimulate more thinking among more people like you about problems like Glen's. So 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.

Naturally, we want to save the Faneuil Halls. But as long as we're saving the past, shouldn't we save the future? The Glen Pissarellas.
Chromattecs
Help you create environments that are fresh as all outdoors.
Finishes and fabrics as fresh as springtime, warm as sunshine. More versatile than wood or the usual metal finishes. Matte textured acrylics lend a nice-to-live-with warmth. Ember Chrome softly reflects surrounding colors and textures. And specially-chosen fabrics help this furniture say “finest.” Visit one of our showrooms and see the fresh touch of Chromattecs on a wide variety of furniture. Or if you prefer, we'll mail complete information. Steelcase Inc., Grand Rapids, Mich.; Los Angeles, Calif.; Canadian Steelcase Co., Ltd., Ontario.

STEELCASE
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IN SWEET'S INTERIOR DESIGN FILE
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SERIES J7030
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SERIES J1600
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