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WORLD CARPETS
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BOSTON'S CITY MALL

A critique by Sibyl Moholy-Nagy; and four new projects by city hall Architects Kallmann & McKinnell.

GHETTO ON THE UPSWING

The Urban Workshop is what’s happening in L.A.’s riot-scarred Watts.

FOCUS

A monthly review of notable buildings.

DIALOGUE IN TENSION

Sculplor Kenneth Snelson’s “push and pull” in New York’s Bryant Park.

WHAT TO DO ABOUT CITIES

Two dissimilar panels have come up with remarkably similar solutions.

MINNESOTA MALL

Minneapolis’ Nicollet Ave. is for meandering buses and moseying people.

BOOKS

John Wellborn Root; Jose Luis Sert.

MILL ON THE MERRIMACK

Eulogy to an unknown city: the Amoskeag MIllyard in Manchester, N.H.

MINIVILLAGE IN FLORIDA

A four-family, lowrise village on a 60 ft. by 110 ft. lot is no easy trick.

TOWARD LOW-COST HOUSING

Lancaster's mayor hurdles all obstacles to get three prototypes built.

BANK IN A BRIDGE

The Federal Reserve scores a breakthrough for buildings and for banks.

PREVIEW

Metro Centre, Toronto, Canada.

THE ARCHITECTURAL FORUM

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PUBLISHER’S NOTE

When, as the year just past was about to finish its course, astronauts Anders, Borman, and Lovell settled down inside Apollo 8 and left the environment of Earth behind them, they put too big an exclamation point to the 1968 sentence for us to ignore the event—or avoid conjecture about what it meant for our future.

The moon is ugly beyond earth’s experience; bone-dry, pock-marked with craters, and smothered in dust. It has no water, no forests, no wind, no sound, no movement and no life. Yet this bleak globe is inspiring man to create a highly efficient environment.

The space program is a technical triumph. 300,000 engineers, technicians and workers, 20,000 contractors and 33 billion U.S. dollars went into Apollo 8, and much more effort and money will go into building lunar space stations.

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It seems as though in creating a new environment where none exists, we will care for it better than the one Created for us here. May be Apollo 8 is really man’s first practical probe for an escape from the desolation he is creating on earth through his own folly.—L.W.M.
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PARK-MALL PLANNING

Forum: I should like to call your attention to a few errors and omissions in W. Joseph Black's Park-Mall study review [Dec. '68 issue]. Mr. Black erroneously grouped my job as Director of the Urban Renewal Design Center with Director of the Master's Program. The Master's Program in Urban Design has traditionally been under the direction of the Dean of the School of Architecture, although, in fact, the program was coordinated for the past five years by Roger Montgomery, now at Berkeley.

The cultural facilities Mr. Black finds lacking in the proposals, from jazz and community centers to schools, colleges, and adult education facilities have been amply provided, in particular see pages 25-28. It is the nature of things that a baseball field occupying 18 people is large enough to house a school for 300. This is not to say the schools and cultural facilities are not there; they simply take up much less space and so are much less evident.

I would not, however, like to detract from Mr. Black's use of the study to make the point that we intentionally stereotyped Negro development into a direction of athletic versus "cultural" achievement. The issue obviously is of community involvement in planning decisions. In either case, I doubt that the one-sided provision of facilities of either athletic or "cultural" content could result in the creation of a new generation of Olympic champions versus cultural aesthetes—would it were that easy.

I am also somewhat dismayed that he did not mention my associates in the study, particularly Brian Kent. Where I enjoyed statements talking of "Newman's farsighted thinking," it would have been easier to have been able to spread the criticism.

OSCAR NEUMANN
Architect

MR. BLACK REPLIES

The one error mentioned was typographical. That sentence should have read "He was formerly director of the Master's Program in Urban Design at [rather than and] the Urban Renewal De-

sign Center at Washington University in St. Louis."

While the interdisciplinary team did provide educational, institutional, and commercial facilities as vital components of the "Center," and recreational facilities as essential features of the "Spine," cultural facilities were not provided on the basis of a first-hand knowledge of the area, nor did the research and design team manage to form an appreciation of the cultural values and life style of residents of the Lawndale community.

One of the major failures of the school systems is that they tend to ignore the cultural achievements of non-European people, and Americans suffer from a culturally biased education. One way to correct this educational imbalance is to provide a range of cultural facilities which express the value system of the community and which satisfy user requirements. For instance, "Transition Zones" could be developed as cultural crossroads. As public open spaces, they could provide creative recreational facilities, cultural festivals, and art fairs. Even neighborhood gangs such as the Blackstone Rangers, whose members appeared before a Congressional hearing, have become interested in cultural affairs and should be encouraged to do something positive for their community. Where the schools have failed, cultural institutions could succeed. A jazz center could be a key cultural facility, for instance, and a "Group Dynamics Center," unlike the traditional community center, could provide for a variety of activities responsive to changing conditions.

Those involved in the Park-Mall Lawndale Study, in addition to Messrs. Newman, Kent, and Montgomery, were Robert Boguslaw, sociologist; George Dickie, landscape architect; Kevin Lynch, planner; and the following graduate research assistants and students of Washington University's Urban Design Program: Albert Lereh, William Albinson, Jurgen Aum, Keith Carney, William Chan, Larry Ellis, Leonard Feinberg, Louise Nystrom, T.F. Peng, and Douglas Taschi.

CREDIT

We neglected to credit Ann Douglass for the photographs of Marian Miller and her oriental rugs which accompanied Walter McQuade's column in the Dec. '68 issue, page 90. Our apologies.—Ed.

(continued on page 24)
SANTA CRUZ COUNTY GOVERNMENTAL CENTER, Santa Cruz, Calif.; Architect: REID, ROCKWELL, BANWELL & TARICS, San Francisco; Structural Engineer: NICHOLAS FORELL AND ASSOCIATES, San Francisco; Contractor: JASPER CONSTRUCTION INC., Santa Cruz; Precast Concrete: BASALT ROCK CO., Napa; Ready-Mixed Concrete: CENTRAL SUPPLY CO., Santa Cruz.

All-Concrete County Courthouse

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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.

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Everybody in this picture is an old pro at upsetting your ideas about classroom walls.

You wouldn’t think it to look at them. Pretty young teacher, bright, happy kids.
But they’re making shambles of old notions about what kinds of space and environment help teachers teach, students learn. Where they have walls today, they may not want them tomorrow. And maybe they won’t need walls at all.
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Inland-Ryerson. Systems / Components / Skills to help you build.


A member of the Steel Family
(Continued from page 14)

CHICAGO CIRCLE

Forum: One of our architecture faculty members just brought his Dec. '68 issue of Architectural Forum into my office and proudly showed me the magnificent section on the Chicago Circle campus.

This is a superb piece!  GROVER E. SHIPTON
Director of Public Information
University of Illinois at Chicago Circle

YES AND NO

Forum: Re: two California banks by Honnold & Rex [Nov. '68, page 64]: Very interesting—but true.

SAM CARSON
Chief Design Architect
Honnold & Rex
Los Angeles

Forum: The two Honnold & Rex buildings work best climatically where they are, the glass-walled one in Los Angeles and the introverted one in Yucaipa.

The temperature in Yucaipa in the summer hovers for weeks on end during the day at 110-115 degrees Fahrenheit. Los Angeles is typically overcast: ocean fog or mist meets warm air to form a haze at best and smog at worst; Los Angeles is sparkling only when a strong Santa Ana wind from the desert blows the fog out to sea.

I have an idea that if you were to set the glass-walled building in Yucaipa you would open up a view to a string town street with an unsightly jumble of commercial activities—certainly not the sylvan scene you imply. I'd like to see it tried: get a view of the Yucaipa site which takes in the surroundings and impose the glass-walled building on it and see how it works.

ESTHER McCOY
Architecture Critic
Los Angeles

Next time we're in Yucaipa.—ED

UNDERSTANDING PEOPLE

Forum: It was very refreshing to see the article on LaClede Town in the November issue. I think that the more effort that we, as a profession, can put into understanding people and how they live where they live, the better off we will be.

The attitude that all environment must yel of the ego behind it will get us exactly nowhere today. People are very sensitive and they are beautiful because of it, and we tend to forget it, being covered by professional blinders.

Who cares how "Down Home" the environment looks? It's people who count, and if they respond to it, it has got to be successful. I'm sure that one could argue "aesthetics" all day about LaClede Town, but while we were arguing, the people would be running, laughing, singing, and digging life in an environment that we were criticizing.

I think much of the credit for a lively community must go to management. It is significant that Mr. Berger participates and contributes to the community, for in that act he is saying he is more than a rent collector. He is saying he cares. Perhaps in public/private projects this is what really counts, form being relegated to a rather minor role.

The architect must, if he is to survive professionally, extend a hand to people and show that he too cares—really cares.

HARRY V. FINROW
Assistant Professor of Architecture
University of Oregon

SHOTGUN BLAST

Forum: Does it matter where the AIA convenes? If the AIA was interested in democratic process, wouldn't it simply poll its membership? Even if such a symbolic disavowal of police riots were effected, what next? Do you think the AIA as a professional body would be ready to make sacrifices for an environment for human renewal?

If Forum proposes as much, why not use your resources in writing substantive position papers to the profession? Isn't Forum just a magazine oriented to the registered architect, an audience for which you may encourage esthetic standards, as well as a pathology of "publicity" architecture? Are not pretty buildings too often the velvet glove for human manipulation or dislocation? If a particular institution is oppressive, can its buildings be otherwise?

If Forum were interested in something more, for example, an enlarged theoretical or technical content, why must one look to magazines such as Landscape, Daedalus, and mimeographed newsletters for key articles on environmental design? If Forum were interested in extending its audience, say, to the young arch-

(Continued on page 32)
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tects who have not a snowball's chance in hell of ever applying the lessons of Walter or Kevin, then why not read the handwriting, or better, the notices on the walls of architecture schools, for example, the proposal of Yale students that they be offered the choice of a non-accredited degree, to be free of what they see as the deformation of the accredited course mentality.

Let's face it, yours is an elite magazine for an elite profession, and as such you deny yourselves the opportunity for proposals more relevant than that of moving the AIA convention upwind.

To the young people concerned about the human environment, the established professions have as much chance of reforming themselves to the real challenges represented by Chicago as the Forum does of extending its intellectual scope, its audience, and its editorial risks, which in turn carry the same odds that I.M. Pei and other master planners use in simulation techniques and community decision processes; that established offices withhold political contributions; that public buildings be commissioned on the basis of design competitions; that registration exams be offered in whole or in part immediately upon graduation; that the "name architects" give design discretion and credit to their staffs; and that the writers of your December "Chicago" letters read the meaning of F.L.W.'s Autobiography.

We love bouillabaisse, but Mr. Watson has thrown too many ingredients into his. —ED

DOWN WITH CONTROVERSY

Forum: I have kept my cool, I have counted to ten, but now I must react with my pen. For the first time in my life I am upset enough to take time to rebut to the writers of your December "Chicago" letters the meaning of F.L.W.'s Autobiography.

I refer to your October issue, page 24. It would do very well good to list my reasons for resenting your EDITORS position and comments regarding the proposed AIA Convention in Chicago. However, I can only say that an important Architectural Publication like FORUM has no business expressing opinions and comments about political items such as Mayor Daley's method of dealing with dissenters' or other items of highly controversial nature.

If your publication continues to relate similar political commentary, I shall dissociate myself from your services and at the same time notify your advertisers of my reason for doing so.

Trusting that my comments are received constructively, I remain, W. W. SHANNON

Architect

Pasadena Calif.

About as constructively as we would receive a bomb. —ED

UP WITH DISSENT

Forum: I am a student of architecture and urban history and try to earn a buck in this town by working at and writing about the problems here.

You name several reasons why the AIA Convention should not be in Chicago; but they are the best reasons for having it here. You bring up the dissent of Sullivan and Wright; but part of their legacy is an audacity that demands that problems be faced on their own ground, not sanctioned by their own withdrawal to a safer field.

In the fight to save England on the battlefields of France, Shakespeare's Henry V challenged his men: "Those who have no stomach to this fight, let them depart." I think this profession must have the stomach. The AIA would indeed be an "arbitrary institute of appearances" if it chose to depart. Departure is incompatible with dissent.

WILLIAM MARLIN

Chicago

SHALLOW SENTIMENTS

Forum: I hope that the embarrassment I felt on reading the three "Dissent on Chicago" letters in your December issue was shared by most other architects. If it wasn't, and if those shallow sentiments from the Detroit, Jackson, and Chicago readers represent the thinking of most U.S. architects, well, then I guess we're in even worse trouble than I thought.

Is it possible that the Gestapo tactics that so shocked the rest of the world last August were actually endorsed by most AIA members? If they were, well, then I'm glad I never joined (the AIA, not the Gestapo).

Your italicized put-downs were beautiful, though; never give up.

MALCOLM R. WELLS

Architect and Conservationist

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FORUM—JAN/FEB-1969

Architect Romaldo Giurgola has been appointed to an AIA committee to select a new architect for the AIA headquarters building in Washington. Giurgola, after winning a national architectural design competition for the job, revising his scheme twice, and having it rejected all three times, might well have wished he were rid of it, as might the AIA itself.

(Others on the committee: Rex W. Allen, Edward Charles Bassett, both of San Francisco; G. Harold W. Haag, Jenkintown, Pa.; Morris Ketchum Jr., I. M. Pei, both of New York City; Willis N. Mills, Stamford, Conn.; Philip Will Jr., Chicago.)

The AIA's simultaneous announcement that restoration of its historic Octagon House would begin January 1, with completion scheduled for the end of the year is, at least, some progress in this episodic saga (see our issues of July/Aug. '65; Dec. '65; Jan./Feb. '66; June '67; July/Aug. '67; Sept. '68, and Oct. '68).

PROSPECTS

THE FUTURE LIES AHEAD

Millions of words and tons of paper have been consumed on prognoses of what the new men in Washington will or will not do about the urban crisis. We find the whole process tedious and almost totally unenlightening. After all, it is usually the job that shapes the man—not the other way around.

So we will resist the temptation to be soothsayers. Instead, we will let the men speak for themselves, and for their jobs:

THE PRESIDENT

"What we need is to get private enterprise into the ghetto, and get the people of the ghetto into private enterprise—not only as workers, but as managers and owners."

"I think what has really happened here is—and that is not criticism of either previous administration—these [urban] problems have now become so urgent on the American scene that they require the same kind of direction that we give to the problems that confront us internationally."

(Continued on page 36)

THE VICE PRESIDENT

"All too often participation of the poor has been construed to mean playing both patient and doctor; when all too often the unhappy result has ranged from protracted delay at best to prolonged extravagant boondoggling at worst."

DANIEL P. MOYNIHAN, ADVISER

"The effort is obviously going to be an experimental one, and it is a necessary and proper one, and we ought not now to freeze ourselves into solutions of problems we only half understand."

"It is simply not enough to want to do good. You have to know..."
how. We have outgrown our ability to deliver on our promises.

"Liberals must divest themselves of the notion that the nation, especially that the cities of the nation, can be run from agencies in Washington."

"Advisers have no views. Only the President has views."

**George Romney of HUD**

"A lot of people are very frustrated and bitter, and it's time to do something because there's tinder in the cities that will make Vietnam look like child's play, and I mean just that."

"I happen to believe there's too much emphasis on solving [urban] problems through public money."

"Government's greatest role should be as stimulator, clearinghouse, and catalyst in helping release the energies of the private, independent, and voluntary sectors of the American community."

"A [tax credit for businessmen who participate in slum redevelopment] is a tool we ought to take a good hard look at, but I think it's only one of many tools."

**Robert H. Finch of HEW**

"I regard myself as a pragmatist. We have, as John W. Gardner points out, a massive amount of legislation. Our job is to rationalize and implement the legislation now on the books. We must make them as workable as possible. Improve the delivery system and avoid proliferation and supplantation. We all know the rhetoric. Now we have got to deliver."

GEORGE ROMNEY OF HUD

"A lot of people are very frustrated and bitter, and it's time to do something because there's tinder in the cities that will make Vietnam look like child's play, and I mean just that."

"I happen to believe there's too much emphasis on solving [urban] problems through public money."

"Government's greatest role should be as stimulator, clearinghouse, and catalyst in helping release the energies of the private, independent, and voluntary sectors of the American community."

"A [tax credit for businessmen who participate in slum redevelopment] is a tool we ought to take a good hard look at, but I think it's only one of many tools."

JOHN VOLPE OF DOT

"I shouldn't use the word concrete; everybody will say I am still a concrete highway man."

(After using the phrase "concrete answers" to reporters.)

**ILEGACIES**

**EXIT THE FIRST LADY**

Even as Lady Bird Johnson's Committee for a More Beautiful Capital was placing its final report on her husband's desk in mid-December, Lady Bird was dedicating a fountain in her honor on icy, windswept Hains Point—on the Potomac River, near National Airport.

Workmen, who had toiled tirelessly the entire day before to free the floating fountain from the river bottom where it had become stuck in the mud (below), managed to make it presentable for the First Lady's good wishes. The foundering fountain is designed to float on a circular arrangement of buoyant steel tanks, from which a central jet spray spews river water, pollution and all, 250 ft. into the air. It, and smaller jets encircling the base, will be illuminated at night with gold and blue lights.

"When I fly back to Washington from time to time," said Lady Bird, wistfully, "I'm sure this will be the first thing I see in this lovely city."

Then, transferring to a private car from a bus which had become stuck in the mud, she was whisked off to the White House.

**ONLY 25,989,990 TO GO**

"This is the beginning of 26 million homes in ten years," said President Johnson on December 14 as he dedicated a grand total of ten new houses on a two-acre site (top photo) in Austin, Tex.

Numerically, it was a small beginning, but the HUD-sponsored project could well be one of the most significant housing achievements of the Johnson Administration. Its purpose is to test out, in real-life situations, the ten most promising low-cost housing systems ($5,000-$7,000, exclusive of land) selected by HUD from proposals offered by 88 builders.

The University of Texas is conducting an exhaustive analysis of the houses, including their costs, construction techniques, engineering and architectural quality, and sociological and psychological impact. The houses are being sold to low-income families who have agreed to serve as guinea pigs for the university experiment.

Some of the houses were constructed in place, some were prefabricated in a plant and trucked to the site, and some combined both techniques. Examples (pictured above in the following order):

The CTX House, 591 sq. ft., about $6,000. It employs posts and panels of extruded asbestos cement assembled atop a concrete slab foundation.

The Dicker Stack-Sack Home, 676 sq. ft., about $5,000. Its walls are composed of bags of concrete which have been submerged in water, stacked, and sprayed with a coating of cementitious material. The result is a modern version of the adobe hacienda.

The Mitchell Framing System, 653.6 sq. ft., about $7,000. Its frame is composed of precast, lightweight concrete columns, beams, and floor slabs, and its wall panels are non-structural. It is easily the best-
looking house of the ten. (For another application of the system, see page 97).

When the university completes its study of the houses (in about two years), HUD will have exacting and comprehensive data on ten low-cost housing schemes, which will be ten more than it has now. Presumably, those that pass the test will be backed by HUD for construction on a mass basis throughout the country. It could mean a major breakthrough in the low-income housing field.

### HISTORY

#### WHO TO THE RESCUE?

While the new Vice President was attending to the pre-inaugural activities of his post, Maryland's House Speaker Marvin Mandel and Senate President William S. James—who had both announced for Agnew's job as governor—were chipping away at a National Historic Monument and were announcing it to no one. They were remodeling Maryland's 189-year-old statehouse, where the Continental Congress once met and George Washington resigned his office. The state Historical Trust—charged by the legislature with "preserving and maintaining historical, esthetic, and cultural properties"—learned that antique paintings and chandeliers were being removed from the Old House Chamber; plaster was falling; and partitions were rising to provide new offices for two house committees (above). In a magnanimous and also prophetic gesture, the flag room—where the oldest American flag in existence is on display—was being transformed into offices for House Majority Leader Thomas Hunter Lowe, himself a rival for the governor's office.

When the trust determined that work in progress could not be stopped, it wired Agnew. "He was perfectly furious about it," said Elizabeth Williams, trust chairman. Agnew swiftly appointed a committee to make recommendations for the complete renovation and restoration of the statehouse when new state office buildings are occupied in about five years. And this time it will be done with architectural supervision, based on archaeological research.

#### CHICAGO'S GREAT WALL

Architects and preservationists visiting Chicago from now on may want to stop at the Sherman House (circa 1911, plus additions; Holabird & Roche, architects) to play the hotel's groovy new game. It's called "Form-Makers"; it stretches out over 100-plus ft. of a lobby wall; and it tests your knowledge of Chicago's architectural history from the Clarke House of 1836 (oldest in Chicago) to the John Hancock and First National Bank buildings, now nearing completion.

Sculpted in concrete by Artist Henri Azaz, "Form-Makers"—49 buildings in all—is in three sections: 1836-1890, 45 ft. long; 1892-1965, 55 ft. long, on the flip side; and a short connecting end panel for the late 1960s, now being completed.

In "selecting only those buildings which were a major contribution to architectural progress," Azaz proves himself an independent thinker. Adler & Sullivan, of course, tops out with seven buildings (if you include the Charnley House, for which Frank Lloyd Wright is considered the probable designer, and the Krause Music Store, for which Sullivan designed the facade only). SOM follows with six (if you count Civic Center); Mies with five (but not 860 Lake Shore Drive); Frank Lloyd Wright with three (but not the Robie House, now a National Historic Landmark); Burnham & Root with two (but not the Monadnock or Reliance buildings).

And, from the early days, those scoring singly include William LeBaron Jenny, Solon S. Beman, H. H. Richardson, Edward H. Bennett, and Holabird & Roche—"but not (out of modesty?) the Sherman House."

Part of the fun will be in penetrating Azaz's somewhat impressionistic renderings (above). To check your score, a printed cue sheet (top) will supply the buildings, dates, and addresses, but not the architects.

#### HYBRIDS

##### OFFENSE IN THE FENS

Some 20 legislative proposals to build a new stadium for the Boston Red Sox have struck out in the last few years. In mid-December, three new bills were added to the lineup.

Of the three, the most controversial (perhaps of any to date) was filed by the Massachusetts State Turnpike Authority. Its $91-million stadium would be built on public parkland in the Back Bay Fens (A in photo below).

Immediate protests came from almost every quarter, beginning with Mayor Kevin H. White, whose own proposal for a South Station site—Bill No. 2—had been filed the same day. Members of the Boston Center for Older Americans demonstrated; many of them live nearby the Fens and have planted and cared for "victory gardens" on the land since World War II.

The Fens bill calls for the city of Boston to turn over the parkland for $1, and asks Red Sox owner Thomas A. Yawkey to deliver the present Fenway Park stadium in exchange for a promise to name the new ball park after him. (Fenway Park—nearby, but not in the Fens—would be demolished to make way for a 5,000-car, six-tiered parking garage—B in photo.) The package also includes a third traffic tunnel under Boston Harbor and a new toll road in Worcester County.

Financing would be accomplished by pooling revenues from...
all these projects, and would postpone by ten years the turnpike’s scheduled reversion to the public, toll free. (City Councilman Thomas I. Atkins has branded the stadium a “frivolous coverup” for the expensive tunneling proposed under Boston Harbor.)

Most important, the state need not pledge its credit—the cause of all former failures—and, consequently, the bill does not require a two-thirds vote, but a mere majority. For that reason, says Turnpike Authority Chairman John T. Driscoll, several legislators, who have opposed stadium plans in the past, have pledged him their vote.

LAME DUCK FLAP

In November, Federal Highway Administrator Lowell K. Bridwell proposed a new set of regulations that would transfer substantial power over design and location of highways from the highwaymen to the people (Dec. 98 issue). In December, he held hearings to give everybody a chance to reply.

In January, after the air had cleared, Bridwell issued the regulations in their final form. In effect, he threw out the bathwater from his original proposals, but he saved the baby.

The “baby,” in this case, is the regulation that, henceforth, state highway departments must hold two public hearings, first, on corridor locations, and, second, on highway design. (In the past only one hearing has been required, and that was a rubber stamp affair often held ten years before a highway was built.) Both hearings must be advertised 21 days in advance, and all official transcripts must be available to any interested party. (Withholding crucial information has been a classic evasion method employed by state highway departments.)

The corridor location hearing must include discussion of alternate routes which have been considered, and reasons for their rejection. The design hearing must present such highway specifics as the number of lanes, location of bridges and interchanges, where elevated sections occur and how high they will be; and discussion of the social, economic, and environmental impact of the highway.

(Last month, incidentally, New York’s new environmental protection administrator announced that the proposed Lower Manhattan Expressway would tend to pollute its environment with “extraordinarily high levels of carbon monoxide.”) Rejected design alternatives must be accounted for, and the design must prove its “relative consistency” with the goals and objectives of any urban plan a city has adopted. No more than three years may elapse between the design hearing and construction.

The “bathwater” that Bridwell eliminated from his final regulations consisted of two proposed changes: (1) that any interested person may appeal the final decision of the state highway department and federal division highway engineer by writing directly to the Federal Highway Administrator; and (2) that highway hearings must explore whether “alternative methods of transportation would better serve the public interest.”

On the surface, both would appear to be Good Things, but Bridwell threw them out for perfectly sound reasons. The first would probably not have held up in court, since it would have violated the legal authority of the states; and the second is already in effect, in the sense that highway plans must be based on comprehensive master plans which have taken other modes of transportation into account.

By eliminating the two proposed provisions, Bridwell neatly countered the major objections voiced by the powerful highway lobby, while at the same time preserving the real object of their wrath: the two-hearing provision. If he had left the other provisions intact, it would have been tantamount to giving the highwaymen an axe which they could have used to demolish the entire set of rules.

Bridwell caused some consternation by issuing the new rules in the form of a memorandum of policy, rather than as formal regulations. Actually, for all practical purposes, the effect will be the same. The memorandum is binding, and it cannot be set aside except by the issuance of another Departmental regulation.

At this point, it seems highly unlikely that the new Administration will attempt to undo Bridwell’s action, even though John A. Volpe, the new Secretary of Transportation, expressed strong objections to the new regulations just before he took office.

If Volpe does succeed in overturning Bridwell, the regulations will go out with a bang, not a whimper. During the public hearing—(continued on page 107)
Bird's-eye view of Boston's Government Center, seen from the east, shows new City Hall, Faneuil Hall to its southeast, tall New England Merchants Bank Building to its south (Edward L. Barnes, architect, Emery Roth & Sons, associated architects), long and curved commercial office building to its west (Welton Becket & Associates, architects), with square State Office Building (by Emery Roth & Sons, and Hoyle, Doran & Berry) behind it. The twin towers and the long, rectangular building to their east are the John F. Kennedy Federal Office Building (by The Architects Collaborative and Samuel Glaser & Associates). To the north of this complex is the parking garage by Kallmann & McKinnell now under construction (see page 54). Site plan (right) shows some of these structures, plus ultimate development of City Hall plaza now nearing completion.
Gerhard M. Kallmann, Noel M. McKinnell, and Edward F. Knowles won the competition for the Boston City Hall in 1962. During the seven years that their building was in the making, comments by the architects and by critics have flowed through magazines and lecture halls. This prenatal word-fencing will be disregarded here. Architecture is pure pragma, the thing done. It is the salvation and sometimes the tragedy of the architect that the accomplished fact obliterates the fictitious image that preceded it. The only justification of any building is its impact on the user who is willing to understand its intentions and solutions.

The significance of the new Boston City Hall lies in historical continuity made contemporary. The building and its ambience, meaning the totality of its supporting motives, is neither a compendium of precedents nor a new beginning. It is a next link in the chain that binds past to future, the way the Periclean acropolis linked the monumental beginnings of Delphi and the Altis with Tivoli and Baalbek. The austere eclecticism of the 1912 edition of the Boston City Hall (Fig. 1) with standardized bays and modular piers at the side elevations provides a tie between the First Town House of 1637 and its latest successor, dedicated this February (Figs. 2 & 3). From the earliest to the most recent design, the emphasis is on a triple chord of base, body, and attic as the most ancient harmonious canon, and on a modified verticality. Historical continuity does not depend on style; it consummates concepts. Le Corbusier contributed, as he does to all true architecture of this century, scale and modulation held together by the visible ligaments of structure. Wright’s kaleidoscopic light and shadow modulations of a building designed quadrilaterally, and his mastery to adjust building and site to each other can be felt. Admiration for the directed centralized movement of mediterranean city plazas comes through, and so does the influence of pre-Columbian ballcourts in the geometric clarity of the brick walls. But the user is not turned around in time; he is tuned-in.

I. M. Pei’s 1960 Master Plan for Downtown Boston (Fig. 4) predigested 60 cleared acres around Scollay and Dock squares as to placement, plans, and height of future buildings. It was an attempt to provide a concentric core for a city which for over 300 years had been proliferating like barnacles on a ship’s bottom. As commercial interests implemented the plan, the sector around the city hall became chaotic and depressing, lacking clarity of communication and any architectural excellence. It is a permanent reminder of the folly of our time that separates planning from architecture, as if a building, its site, and its impact on the whole, were unrelated aspects of the urban landscape. To the north looms the TAC-Glaser-designed Federal Office Building. It is an elephantine inarticulate mass that signals its presence across Boston Harbor not with a lamp in each window but with a square column in each rounded corner (Fig. 5 & 7). To the south rises a bank tower by Edward L. Barnes and Emery Roth & Sons whose elevation looks like a two-dimensional cardboard stencil (Fig. 6) to be crowded shortly by “at least ten” more commercial highrise buildings, among them the latest product of the Belluschi-Roth team which gave to New York its Pan-Am Building.

The curious aspect is the ameliorating impact exerted on this ill-conceived perplexity by the new City Hall and its plaza. Even banalities next door, such as...
as Becket's Two Center Plaza, sharpen one's awareness of a unique architectural experience. From any approach the four dissimilar facades of the free-standing structure and their strongly designed terminations transmit a concept of harmonized contrast. The flaring, light-reflecting wings of the southeast corner (Fig. 8) act as space-divider between the mayor's offices, dramatizing at the same time the contrast between the 94-ft. height of the free-standing slab column on one end of the east elevation, and the density of the 57-ft. high brick mound wrapped around the northeast corner on the other. The south elevation is underplayed to give full range to the stepped entrances, except for the extravagantly sculptural hoods on the south and east corner that locate the most important administrative offices on the elevations. We look almost automatically for reciprocally functioning elements. The depth of these cantilevered composites will be identified with and immediately questioned as brises soleil in a climate that rarely provides sun glare and in a building air conditioned throughout. In fact their only function is a frank homage to the constructivist heritage from Rietveld to Le Corbusier and Kahn, brought into the contemporary fold by Venturi's canonization of complexity and contradiction.

The diversity-in-harmony between the east elevation and the north and west elevations is dramatic. It expresses the dichotomous relationship of the building to the city. In the east the new building belongs to the street and the markets by forming their western enclosure (Fig. 9). Scollay and Dock squares were for generations the nadir of Boston's social fabric in contrast to Beacon Hill, its summit. The east elevation of the new hall reflects something of this combination of expediency and entertainment which, one would hope, will survive even after the city hall architects have redesigned the market approaches. The high vehicular portal draws the street-life into the building; the hoods and the sharply profiled brick mound invite comment by the populace which is already abundantly forthcoming. In complete contrast, the north and west elevations ignore the street and relate only to the plaza.

There are 417,000 sq. ft. of open area to 513,000 sq. ft. of enclosed space—a ratio which would be generous in any setting but is a unique gesture of fiscal munificence in a high-tax-yield development area. The two outstanding characteristics of the plaza concept are total separation of the space from any vehicular traffic and definition by motion rather than by the traditional static elements of sculpture and seating areas (page 43).

There is no false pretense that this is a bigger and better toddler playground or retreat for elderly chessplayers. It is a kinetic outdoor space whose purpose is initiation into the city hall spaces. Flat-terraced steps, unfolding like a fan, connect the lower plaza and third floor levels of the City Hall with the stepped approach to the subway station. The brick enclosure of the station entrance (Fig. 10), designed by the same architects, blends into the red brick carpet of the plaza. Other broad shallow steps, always designed in units, connect the subway exit with Dock Square and the markets and, on the opposite side, with a promenade and garden.

Since the fateful day in Savoye, 1929, when Le Corbusier outlawed visible gravity by abolishing supporting walls, buildings have been ready to march off their indifferent sites if only they knew which piloti to lift first. The Boston City Hall accepts the stilt concept but transforms it in two directions. The very bulk of the solid brick forms roots the superstructure to its site, and the elongation of the "pilotis" into columns expands the rhythm of solid and void to the entire height of the building body (Fig. 11). This spacing at 14 ft. 4 in. and 28 ft. 8 in. intervals is the counterpoint to a rather stiff metric on the three-story cornice. It reconciles the unequal but equivalent
elements of form in a unified interplay that is maintained throughout the building interior as a definition of space units and a visualization of stability. Through this exterior-interior correlation of the column rhythm all spaces are related to the exterior form (Fig. 12).

The three interior space zones correspond to the exterior triple division: the north lobby and the plaza level; the so-called ceremonial middle section; and the office floors, forming the three topmost stories. It is easy enough to be convinced by the lower and upper space arrangements. The north lobby is accessible at the base of the north elevation which derives an almost classical harmony from the rhythmic bays (Fig. 11). At one and a half floor level, ramps lead into the departments used by the largest crowds, and connected with the third floor by escalators and steps. The architects have been emphatic in their hope that these two levels, permitting new perspectives into communicating spaces from every angle, will become a true concourse making a passage through their City Hall a daily experience for citizens on the way to other business. Illumination is not uniform but a mixture of daylight, filtering through the glazed entrance and the skylight, and fluorescent and incandescent fixtures recessed throughout the building into the precast inserts of the Vierendeel trusses. This unconventional, undiffused light modulates the columns and horizontal parapets into a chiaroscuro that defines effectively the descending scale of the north lobby toward elegantly subdued linear patterns on the glass partitions.

Offices in the cantilevered top floors have a clean simplicity. The plan avoids the claustrophobic effect of lightless corridors, typical of public buildings. The desk arrangements are open and continuous, and floor-to-ceiling windows on the exterior and interior perimeter bring in sunlight (Fig. 13). This airy spaciousness is heightened by recessed terraces accessible from the offices (Fig. 14). They are grouped around an interior court, reached from plaza level by a stepped ramp, and curiously unconvincing as the public space it is meant to be. Its most evident function is as a skylight mound repeating the design concept of the subway station (Fig. 15), and as access to an almost accidental portico that stirs grateful memories of Hellenistic stoas (Fig. 16). Taken together the kinetic variability of the concourse spaces and the quiet permanence of the office floors are a highly successful differentiation of shapes that influence the mood of the user.

The ceremonial center part of the new City Hall, which focuses on the mayor's and the councilmen's offices, the council chamber, and the library on the fifth floor (see page 51), is the hardest to describe and assess. The elusiveness comes from the decision of the architects to combine symbolism and expediency through a combination of actual and virtual space experiences. A monumental staircase in red brick leads from the south lobby on the third floor to the fourth floor whose assigned spaces have no particular importance (Fig. 17). All pre-elevator ages knew the self-expressive importance of monumental stairs without fixed destination. Versailles' Cent Marches and Rome's Spanish Steps are disproportionate to their terminations—they are vertical space art. This is true of the Boston City Hall stairs which receive a virtually inaccessible and purely perceptive dimension from a vertical light shaft above which penetrates the height of the central hall (Fig. 18). Wall openings like loopholes divide air intake units whose staggered form pulls the eye upward toward daylight reflecting on an inclined plane. The same superb awareness of spatial depth enhanced by darkened foreground elements that is so effective in the north lobby uses other structural elements as articulating forms of this dramatic verticality.

The objection to this combined effect of actual ascent to a ceremonial level and a purely conceptual verticality extended into
the sky, is not a criticism of design but of intended purpose. There is no connection, except a purely mechanical one, between the grand stairs and the fifth or ceremonial floor. Access to that floor is either by a one-run staircase, which is not likely to attract stair-shy citizens, or by elevators. The sense of admission into a special area is missing. The emphasis of the government core comes from ceiling heights of 14 ft. as against 8 ft. 10 in. plus the 4 ft. 4 in. recesses in the Vierendeel trusses on the other floors, and from the wall treatment (Fig. 19). The corridors are sheathed in bronze paneling and doors are African mahogany. The effect is not so much ceremonial as ostentatious. It is a curious lesson in the unalterable nature of materials that the combination of poured concrete and water-struck brick in all other areas works well through the basic relatedness of aggregates while the combination of reflective metal, oiled wood, and raw concrete is much less successful. In the chief executive offices the hard-edged artistry of the hooded forms on the exterior creates a gloomy twilight and competes rather uncomfortably with the functional aspect of an office, as if the father of the city were continuously compelled to show himself at the Appearance Window like an Egyptian Pharaoh (Fig. 20).

The architects have stated their case as "making the process of government so meaningful that it becomes monumental, involving everybody. . . . It becomes monumental because it is meaningful."

Perhaps it is permissible for a fellow European to point out to the architects the contradiction between involving everybody and monumentality. The dignity and aloofness of public office and its paradigmatic quality are Old World traditions that have fallen short of an architectural solution in Boston because they are meaningless in the U.S. The expressed expectation that the people will become involved through visits to their city hall, the way a pedestrian becomes involved with a loved city through meaningful landmarks, is doomed. This is a society notorious for its contempt for government, and its inclination toward violence. The new City Hall, the first major one built in the era of the Welfare State, will work if its participation spaces work. Its life will flow around the symbolic seat of power, ignoring it.

The highest meaning of the new civic center will come not from monumentality but from a gradual awareness of its profound humanism by the citizens. This City Hall is not a building of the Electronic Age and therefore impervious to obsolescence. The 318,000 sq. ft. of office space have an elastic timelessness that is meaningful because it is eternally serviceable. The claim to historical continuity of a traditional building in traditional materials might restore the dignity of a great past to the Old State House and Faneuil Hall, now no more than traffic obstacles. The roughness of the new structure, the refusal to be decorative, confesses to the absence of a formal esthetic in a period without shared visual standards. But it is this very plainness that proclaims the supremacy of space experience over form experience. A visitor standing on the highest interior level experiences a kinetic continuity. He can follow the flow of space down the grand staircase into the urban microcosm of the passages and intersections of the concourse and outward toward the plaza. He will experience a freedom of perception in all directions (Fig. 21) that imparts a new visual dimension. City people are unschooled in environmental observation and it might need systematic guidance to make them aware of the many delights that this new civic center provides. These delights, lifting anonymous men above the stupefying spacelessness of their habitat, justify a repetition of the advice old Goethe gave to his contemporaries 150 years ago:

_The useful advances itself because the multitude produces it and cannot do without it. The beautiful must be advanced because only a few can create it and the multitude needs it._
Left: view from the southwest, showing main entrance portico at corner leading into south lobby. Massive frames to the left of portico mark the council chamber, which is located in this corner of the building. Councilmen's facilities are to the left of the chamber; mayor's office and related spaces are at the extreme right in this photograph, overlooking Faneuil Hall. The frieze that continues around the perimeter of the building contains three top floors of departmental offices. Section is taken from north to south, through central court and south lobby. Right: southeast corner of building, with automobile entrances. Mayor's offices are located above this corner portico. View down into central court shows skylight above part of the north lobby—a large public area reaching into the center of the building.
Left: view from north entrance into north lobby and the major public spaces arranged on several levels. Counters visible along perimeter of these spaces serve citizens wishing to apply for licenses, registration, etc. from various city departments. Skylights within the deep concrete ceiling structure (actually Vierendeel trusses) illuminate the public areas.

Right: plans of the principal levels show, from top to bottom, a typical office floor contained within the deep roof-frieze that caps the building; the principal ceremonial floor, with the mayor's offices, the council chamber, and the councilmen's offices; and the principal public floor, with the two public entrances from the north and southwest, and the large, centrally located public spaces pictured at left.
Left: south lobby as seen from the southwest entrance. This is one of two principal public entrances, the other one being from the north. At the level of the south lobby, visitors can continue into the central public areas through doors visible at left; or they can walk up the stairs to the ceremonial floor, with its council chamber, mayor's office, municipal reference library, etc. The form of the council chamber is reflected in part of the ceiling over the south lobby. Section, taken from east to west, shows tall light-shafts that penetrate the building to illuminate the south lobby. One of these shafts is shown at top, right. Bottom right: elevator landing in south lobby, next to stairs shown also at right; and view into southwest portico, showing the soffit under the council chamber floor.

FACTS AND FIGURES

Building area: 513,000 sq. ft.
Cost: $21,600,000 (excluding land, fees, financing, furnishings).

PHOTOGRAPHS: George Cserna, except page 42, Aerial Photos of New England; page 47, Nos. 14, 15, 16, 18, 19, page 53 (top), Randolph Langenbach.
Kallmann and McKinnell, who carried out the Boston City Hall commission, which they won in association with Edward F. Knowles, are now a successful and established Boston architectural firm. (Knowles remained in New York.) Among the projects in their office at present are four of unusual interest: the Boston Government Center Parking Garage, the New Athletics Facility at Phillips Exeter Academy, the Roxbury, Mass. Civic Center, and the Boston Five Cents Savings Bank. They are in various stages of design or construction.
THE 2,000-CAR PARKING GARAGE (left) next to Boston's Government Center is scheduled for completion in early summer. It is a dramatic structure—largely of precast/prestressed concrete—with all columns, girders, and beams expressively interlocked. When completed, the garage will be 600 ft. long, 200 ft. wide, and nine stories high. (Only the top two stories will be filled in with parking docks at one end—see model photo, below left—to leave room for a 96-ft. diameter spiral access ramp.) The T-shaped prestressed concrete planks used to form the floors are 62 ft. long, 9 ft. wide, 3 ft. high, and weigh 22 tons. They are hoisted onto the girders (and onto rubber pads to dampen vibration), and then locked into position with steel tabs that are welded together in situ. (Samuel Glaser Associates and Kallmann & McKinnell, architects; Albert Goldberg & Associates, structural; Cleverdon, Varney & Pike, mechanical; Herman G. Protze, concrete technologist; Joseph Rugo, general contractor.)

THE NEW ATHLETICS FACILITY (right) at Phillips Exeter Academy is also under construction now and should be completed this fall. In principle, this is a series of buildings—pool, gym, hockey rinks, etc.—"plugged into" a pedestrian spine or street. The spine has three levels: entrances are at the second level, from which participants go down to lockers, spectators up to seats. The spine is framed in concrete (photo far right), but the various facilities served by the spine are framed with self-oxidizing steel trusses—fifteen of them, each weighing between 15 and 22 tons. The steel trusses are kept outside the enclosed spaces, and form a structural articulation as powerful as that of the parking garage. The scale of the facility is deceptive in these views: the steel frames, for example, are about 50 ft. tall. (Kallmann & McKinnell, architects; LeMessurier Associates Inc., structural; Francis Associates, mechanical, electrical, plumbing; Herman G. Protze, materials technologist; George B. H. Macomber Co. Inc., general contractor. PHOTOGRAPHS: George Zimberg.)
THE CIVIC CENTER for Roxbury, Mass. (left), the major ghetto of Boston, will not be completed for another two years or so. The project consists of three buildings—a 4-story courthouse, a 2-story police station, and a 1-story library—arranged along a diagonal pedestrian mall that cuts across the block. A fair amount of redevelopment has already taken place in the Civic Center area, and the new buildings will be faced with brick to match a nearby boys' club, designed by TAC. Unlike the other projects now on the architects' drawing boards, this one emphasizes spatial manipulation rather than structural drama. The spaces between the four buildings will be carefully shaped by changes in level, surfaces, formal planting, etc. (Hoyle, Doran & Berry/Kallmann & McKinnell, architects in joint venture entitled "Roxbury Civic Center Associates"); Hoyle, Doran & Berry, structural; Buerkel & Co., mechanical; Thompson Engineering, electrical; Robert W. Sullivan, plumbing.)

THE BOSTON FIVE CENTS SAVINGS BANK (right) should be completed in about one year. The irregular corner site clearly helped shape the building—a 25 ft. tall banking hall at street level (bottom right), plus offices on three upper floors. The structure will be poured-in-place concrete, post-tensioned, with double columns holding beams that radiate outward from the core of the building. (Some of these beams will be 90 ft. long.) The columns will stand outside the building to form a colonnade along the entire street frontage. The total area is about 42,000 sq. ft. (Kallmann & McKinnell, architects; Albert Goldberg & Associates, structural; Francis Associates, mechanical and electrical.)
WORKSHOP IN WATTS

Judging from its ordinary name, the Urban Workshop could be anything and anywhere. But it is an extraordinary organization, started by black professionals (now, however, including both black and white persons), and it is located in an extraordinary place—Watts.

The Urban Workshop, almost without funds, has survived for three years in a location and in activities where survival is never easy. Three years after the riots, the Workshop remains the only group of black architects and planners in the Greater Watts riot area, and it has neither been hired away nor turned away from its original aims.

It has designed what will be south-central L.A.'s first 22nd housing since 1962; it has already carried out several smaller projects in the community.

It is trying to have an impact on the many proposals for rebuilding Watts and "Greater Watts." It is on its way to linking up with the well-known Arthur D. Little firm to form an independent research organization, and is giving major attention to one of the most acute problems in planning today: communication between black and white, communication between professional and nonprofessional.

Home of the Urban Workshop is an abandoned lumber yard, along the railroad tracks of the former Pacific Electric "Red Car" route. In one direction, several blocks away, are the Watts Towers; in another direction is the once burned-out 103rd Street, called "Charcoal Alley" since 1965.

The building used by the Workshop is a garage-like studio, a double-height space with a working loft at the rear, drafting space under the loft, and meeting places on both levels. On its walls is a graphic introduction to the Workshop—a poster announcing discussion of a shopping mall, another for a professional seminar called "Soul and T-Square," petitions protesting the threatened sale of a city-operated camp in the High Sierra, a placard saying "Involvement is the Name of the Game," a poster for "Intercom 68" (a Workshop project doing black missionary work in the white community).

There are also maps at every scale—from a guide drawn by the Workshop for the several annual Watts Festivals, to the study of a Workshop-proposed shopping plaza on 103rd Street, to Workshop-produced maps of land use in all of Watts, to an enormous map of the enormous Los Angeles County (which includes almost 40 per cent of the state's population, 74 incorporated areas, and uncounted miles of freeway).

The Workshop logo appears on its own output (and, greatly enlarged, on the rear of the building). The logo is a large black square around a smaller square, and came about one day when a member of the Workshop looked at it and said, with a note of discovery, "Whitey is a square when he's in our thing, but we're a square when we're in his thing."

This may define some the concerns of the Workshop, but does not define its politics. Any attempt to put the group into one "bag" or another is utterly confounded by the upstairs meeting area, which has posters of John F. Kennedy, Leroi Jones, Malcolm X, Adam Clayton Powell, Albert Einstein, and the Indian who loves Jewish rye bread.

"We don't find it necessary to be political," explains one member of the Workshop. And the Workshop remains its own man, unattached to any of the community's more politically motivated spokesmen. (Actually, says Edgar Goff, one of the Workshop's founders, no one person speaks for the community. Black community leaders are those who live and survive and create in the best way they can.) The Workshop has been dubbed "The Quiet Militants" and it is proud of the distinction.

Origins and aims

The Workshop began soon after the riots. Ed Goff recalls that the intention of local people to do something in (and with) the community had prompted a visit to the L.A. city planning department only two days before the riots. In the week after the riots, the group organized further—professionals and nonprofessionals—and put together a synopsis of what they felt was important in any rebuilding.

"You're going to need some
help," they said to the downtown agency. Two months went by, with no reply. By this time, the city had opened an office in the riot area, and their man in Watts—himself black—replied that he didn't need any help. "That was the night the Workshop began," says Goff.

Co-founder of the Workshop was Eugene Brooks. Both Goff and Brooks are trained in architecture—Ed Goff studied architecture at USC, after his B.A. in political science at UCLA; Gene Brooks did graduate work in planning at USC after his B. Arch. at USC. Before the Workshop came about, both were working in large offices—Brooks at Bechtel Corporation, as a senior planner; Goff at General Electric, as a research analyst (with emphasis on housing and development in racial ghettos). The "come back home" movement of these two successful black professionals is a return home in more than symbolic terms. Both had grown up on L.A.'s East Side—Goff's family had been in L.A. since 1812, and Brook's father had been minister at a local church (incidentally, designed by R.M. Schindler).

"It is difficult to describe the organization of the Workshop," states one of its papers, "since it is by design a very flexible, fluid arrangement." The founders are its "backbone"—in direction and (until recently) in financial support—but they declare themselves "open to suggestions from anyone willing to work and be involved." During the day, community people stop by; during the evening, technical people are on hand. The Workshop has a roster of 32 professionals (economists, sociologists, social workers, anthropologists, educators, etc.) to call upon as needed. Design students come to help and learn; last summer, in steady attendance, were six students from the newly formed NASPA (National Association of Student Planners and Architects).

For a "prideful" community

But, if the Workshop's structure is flexible, its aims are firm. Through direct involvement and visible improvement, it hopes to break up the pattern of hopelessness and despair that characterizes depressed communities.

The Workshop wants to provide, from within the Watts community, "those critical skills and commitment" necessary for the development of a strong and "prideful" community.

A vital aim of the Workshop is to develop the reservoir of undeveloped "creativity, skills, and leadership" in the community, providing ways for local people to have an effective say in the public policies affecting so much of their lives—policies in housing, welfare, health, education, etc., now almost universally imposed from an outside bureaucracy. The goal of the Workshop is for "community-based, community-oriented" services (we were here already, Goff and Brooks say; "we are not a dropped-in group"). "The guiding spirit will be the logic of what people consider to be their own needs; the criteria will be their values of themselves and the community."

The program is probably 80 per cent social planning, 20 per cent physical planning, and thus broader than is implied by the original name of the group (Urban Design Workshop). The geographic focus is broad, too. The commitment is to the entire "spacious ghetto" of Los Angeles, which numbers almost 1.5 million black people, and to its counterparts across the country. By necessity, the focus is on the larger metropolitan community, as well. "We can't plan for the black community unless we know what's going on in the white community, and vice versa," says Goff. It is necessary to look at the larger area's zoning, freeways, rapid transit, even air routes, all of which—and more—affect life within the black community.

The concerns of the Workshop thus extend far beyond Watts. Actually the Workshop deplores the attention the world has given to Watts since 1965, an attention that has seen the number of private and public agencies increase astronomically, with many of them performing as ineffectively and wrongheaded—even destructively—as ever. Believing that it is a disservice to view Watts as a place of destruction, not as a place with its own lifestyle and vitality, the Workshop is developing a "community tourist guide" to the entire black area,
The Workshop uses a double-height studio, one of two buildings on the site.

which will emphasize its history and will point out its places of strong social importance, not its burned-out storefronts.

In its enlargement of the McConce Commission map, the Workshop seeks to correct a misconception created by the mass media in their initial naming of the "Watts" riots. Actually, the riots did not begin in Watts, and only 10 per cent of the activity took place in Watts. The Workshop feels that a map showing destruction in many places in L.A. other than Watts has profound implications in showing the difference between how a community like Watts sees itself, and how it is viewed from outside. (The community, in fact, calls the events of 1965 anything from a revolt, to a manifesto, to a demolition, but this difference cannot be dealt with on a map.) It is probably fair to say that the discrepancy between the white community's view of the black, and the black community's view of itself, is apparent in everything the Workshop does.

The Workshop has many ideas of what needs to be done in the minority community. It defines some of its work as a "Project Now" series ("what happens in the meantime") and some as a "Ghetto Beautiful" program. In addition, there are projects (of which more later) that fall between or outside these two categories, and may well have a greater impact than any of the more visible efforts.

Short-term projects

Among the Project Now ventures: 1) clearing and preparation of riot-damaged lots for the annual Watts Festival, held each August since 1966; 2) fixing up the Workshop's own place; 3) creating a half-mile "linear park," of which little now remains, along the debris-laden Southern Pacific right-of-way; 4) clearing a vacant lot and putting up a small pavilion as a rest center for alcoholics (this project was stalled for lack of funds); 5) continued remodeling of a burned-out furniture store for the Watts Happening Coffee House (Workshop directors are members of its Board of Directors); 6) plans for a new 103rd Street Teen Post, a center sponsored in part by the Workshop; 7) plans for a "play pad" and a visitors' center near the Watts Towers.

"One must be part of the community to identify the needs that generate these projects," says a Workshop paper. Funding from the inside is difficult, though. The city gave $3,600 two years ago, for a series of immediate projects (mostly connected with the forthcoming Festival) recommended by the Workshop as those having the greatest potential for conveying the city's concern. "It showed that the city can move if it wants," says Goff. The money didn't arrive until several months after the work was done, though, and after the Workshop had laid out funds from its own pocket. And the man who arranged the grant, an assistant to the mayor, lost his job not long afterward. He had believed in action, so the story goes, and it got him into trouble in various places—particularly among the local agencies which should have thought of some of his ideas themselves.

The Workshop supports itself through architectural services and consulting work. Thus far it has renovated 40 houses in Greater Watts, under the 221h program (rehabilitation of existing dwellings under sponsorship of limited-dividend or nonprofit groups). But its major architectural work to date is for 36 units of moderate-income housing (under 221d3), to be built as a cooperative by Mead Housing Trust. The project is not innovative; "our next housing will be," says Brooks, "we just wanted this one to be accepted, and built." A building permit has been obtained, and the project is now awaiting FHA action. It is a pleasant development, with patio, lawn, and four bedrooms for each duplex. The plans are the first to be drawn in Watts. Black contractors are being invited to bid on the $500,000 job.

A new look at ghetto needs

Another major project, for which a contract has just been signed, is an eight-months study for United Way (L.A.'s Community Chest). United Way raises $28 million a year for its 240 groups, of which only 20 are concerned with the black community, and only six are located in...
The Workshop is the only black architect-planner group in the 1965 riot area. Co-founders Gene Brooks and Ed Goff are both trained in architecture.

The ghetto. The Workshop's study will take a completely new look at the ghetto's needs; it will develop new ways to ask questions, and will propose new ways of meeting needs where traditional ways have failed. Goff believes that the study could become a national model for analyzing a community because this time the black community is studying itself. Also in the contract with United Way is the programming of a 24-hour service center, to provide information, advice, and resources of both an emergency and non-emergency nature.

Among other projects that the Workshop has worked on:

- **Pico-Union**: (in cooperation with UCLA) advice to the Pico-Union Neighborhood Council on establishing a neighborhood development corporation, and on planning for future development.
- **Ujima project**: preliminary design analysis for a 115-acre site that Urban America had wanted to develop (Urban America ran into trouble as "outsiders" and dropped the project).
- **Community Justice Center**: physical planning for a newly funded organization that will give 24-hour legal assistance and bonding to arrested persons.
- **USC Health Center in Watts**: alteration of existing space for a 24-hour clinic funded by OEO.
- **Stockton**: comprehensive planning study for the predominantly minority south area.

**Plans from outside**

Funded by no one, but prompted by its own conscience and the requests of residents, the Workshop plays a responsive role in relation to outside plans, analyzing the many proposals that will impinge on the minority community. These include urban renewal, Model Cities, and freeway location, each of which will have a major effect on Watts.

The Workshop's involvement in the urban renewal of Watts goes back more than a year. In the 1967 preliminary plan developed by L.A.'s Community Redevelopment Agency, some industrial development was proposed. The Workshop (and most people in the area) objected, charging that the notion of benefits flowing from simply increasing the employment base is "overly simplistic." Existing industry doesn't employ the low-skilled Negro as it is, they argued, and the way to attack Negro unemployment is by changing the hiring and training practices. "We're not against renewal, just against bad planning. We dig Watts. We want to stay here; we want to rebuild here. . . . We reject the notion that the future will take care of itself if only something or anything is started now. This is the antithesis of sound city and community planning." The upshot of their struggle was a new renewal plan, without industry, which was approved in November, 1968 by the L.A. city council, and was forwarded to the federal government for funding.

The entire 107-acre site is slated for demolition, an action approved by Goff (and a majority of site residents). No housing there is more recent than the immediate post-war days, and more than half of the housing was built before 1939. In addition, the lack of serious code enforcement since the early '60s (the city now inspects only those buildings where a complaint is received) has meant that the housing stock is steadily, and rapidly, deteriorating. In the rebuilding, Goff believes, "We'll probably see three- and four-story units, and six-story units would be OK if they're well done. But before it's all wiped out, let's try to understand what's here, why people gather where they do, what places are important to them. There is a vitality and awareness in the black community. Anything and everything can happen here. We don't want this place turned into something cold and antiseptic.

Project director for the renewal, Edgar Law, says, "it is a community-based agency, for once." And Goff, who is part of that community, says, "We're watchdogging the renewal agency, but the community is watchdogging us." The Workshop wants to be more than a watchdog, however; it hopes to be hired to plan the renewal area's plaza and shopping mall at 103rd Street.

**Model Cities**

The Workshop's involvement in Model Cities is less successful. In
an analysis they were asked to make of the city's proposal (for a local assemblyman), they state clearly that they are in favor of the city's application, and support favorable action by HUD. HUD's action was to grant only $284,000 for two Model Cities in the city—one in the northeast, predominantly a Mexican-American population, and one in the south-central area, predominantly black. (The original request was for $613,359 for the "Greater Watts" program alone.) HUD refuses to make the specific division between the two areas, and a local struggle described in terms of Browns against Blacks is currently in progress.

The Workshop asserts that the application did not adequately involve local people in the process of generating the application or in the planning activities proposed in that application. As described by Attilio G. Parisi, who is project coordinator in the mayor's Office of Community Development, the city didn't know it had a second chance for Model Cities (its first was rejected in 1967) until mid-February, 1968, and the application was presented to the city council on April 1st. "There was no time for a grassroots operation," says Parisi. Preparation of the application was assigned to the Los Angeles Technical Services Corporation, which came into being at the time the first Model Cities application (a document it also prepared). That application was denied, at least in part, some say, because of inadequate citizen participation. Parisi says this may not be the whole truth.

Asked if there is validity to the charge that persons representing the community were not adequately involved, Parisi says no, and tells of a meeting in Watts where those contributing to the proposal, and living in Watts, were asked to raise their hands. Some 40 hands went up. Not so easy to discover, at least by a show of hands, is whether the 40 represent the many "communities" in Greater Watts.

Local participation was funneled through the Watts Labor Community Action Committee (WLCA C), a nonprofit corporation conceived just before the riots, and funded now by 12 labor unions, various foundations, and the federal government. Its impact on the community can be measured in its program of work experience for young people, its 15 vest-pocket parks, and its campaign for the new hospital going up in Watts. 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." WLCA C was written into the Model Cities proposal for $279,563 of community participation. And the Workshop says, "They all know we're here, but they don't use us. We must be doing something right."

Conditions in Greater Watts

There is much that needs attention in Greater Watts. According to the Model Cities application, 44.5 per cent of the families earn under $4,000; almost 20 per cent of all males over 14 are neither in the labor force nor attending school; unemployment actually worsened between 1960 and 1965 (and "progress since 1965 is at best uncertain and is frequently a matter of controversy"). Raising skill levels isn't enough, the proposal states, since graduates of some training programs find that the jobs for which they were trained "no longer exist or remain inaccessible" because of discrimination. Transportation is utterly inadequate—only 20 of the 91 work shifts of major employers in the L.A. area are served by public transit. In Greater Watts, fewer than 20 per cent of the businesses have nonwhite owners (who tend to be non-residents), and these are mostly "marginal endeavors with highly limited work force potentials." Education is so bad that high school graduates are often as "disadvantaged" as the 66 per cent who are dropouts. If these are the conditions that prevail, and are worsening, the Workshop reasons, why are some of the same planning techniques being employed as have previously proven ineffective and harmful? They criticize the application's failure to mention segregation and to think in terms of the larger metropolis, its arbitrary setting of area boundaries, and its failure to establish coordina-
tion in the planning process (this last has now been insisted on by the federal government).

The Model Cities application says that within the next ten years, through the construction of three new freeways, "the community of Watts will be completely surrounded by freeway systems." Although the state has new procedures for obtaining replacement housing (including lump-sum grants, to be used when the available housing is more expensive than the existing housing to be traded), and although there is a brand-new trailer sitting on a major road in Watts, open to local people for information (another innovation), the freeway program itself seems to move ahead unquestioned. The Workshop is particularly opposed to the location being put forth for the north-south Industrial Freeway, now recommended for n. location to the west of Alameda Avenue. This major barrier, Alameda Avenue, is already bordered by junkyards, and locating the freeway further to its west would only allow this "industrial" area to expand into the strip between the freeway and Alameda. The Workshop has not yet begun its campaign against this location, which it believes is a way for industrial interests to expand industry along the tracks.

Communication

As a link in the chain of communication, the Workshop may have most to say. Communication is a large part of its work. The NBC-TV documentary "Many Shades of Black," for instance, was instigated by the Workshop, and pointed out, among other things, that of the 44 persons who founded Los Angeles in 1781, 26 were black.

To L.A.'s Urban Coalition (whose position paper on housing was written by the Workshop), the Workshop speaks of the need to stop relying on white people as experts, to start looking at the existing and potential skills in the black community. To systems-minded firms like A. D. Little, the Workshop brings out its step-by-step approach (modeled on the critical path method) for entering a community to develop a specific project. To planners, the Workshop suggests its own organization as the buffer between citizens and power structure. Ed Bacon is exploring the possibility of having the Workshop perform this function in Philadelphia.

For the community around it, the Workshop provides a place where ideas can be exchanged and explored. Its analysis of the Kerner Commission report is a matrix that pairs black and white institutions (the report leaves out, however, the many aspects of ghetto life with no parallel in the white community). The traditional ways of communicating in architecture are not direct enough, Goff believes. "We need more than drawings," he says. "We need exhibits, and the techniques used in fairs, and science museums, and movies. We haven't yet begun to explore this."

Survival

The Workshop shares, with its community, the daily struggle for survival. Some of the "biggest architects" came around to pick their brains—without pay, of course. "The AIA could have helped, but they didn't. They could have set up a competition for the riot area, or started an educational project for people here—poor people of any color just don't know what a shopping center is; they don't know any of the planning possibilities. We exist, in a sense, because of the noncommitment of architects and planners."

There are problems simply in existing. The Workshop has been broken into no less than 12 times, although almost nothing was taken. Sightseers drain the energy, and missionaries, both white and black, circle around like buzzards. Then too, "the motives of everyone in a low-income area are suspect. We don't want to be tagged as hustlers."

But they have survived. And, as he looks toward downtown Los Angeles, from the tracks on 103rd Street, Goff tells of an expression in the area: "If we can see City Hall, even when they don't see us." Watts is undoubtedly more visible to City Hall because the Urban Workshop exists. And through the Workshop, the larger Watts—"Watts, to the white person, is anywhere we live"—may become more visible to those outside it.

—Ellen Perry Berkeley
LITTLE BRICK SCHOOLHOUSE

Winner of the Pennsylvania Society of Architects' first honor award for design is the School of Practical Nursing at Allegheny General Hospital in Pittsburgh (opposite). Architects Deeter, Ritchey, Sipple have put teaching, study, and faculty areas in a neatly detailed, four-story structure of gray brick, partly below grade on the sloping site. It is compatible with an existing ten-story nurse's residence (at far end in photo, bottom left) and connected to it by means of a two-story, skylit library and passageway (see plan). Narrow, recessed windows simplify shutting out natural light when closed-circuit TV is used in teaching. Eventually, all instruction will convert to remote programming with only a few highly trained supervisors on hand.

NONCITY HALL

Competition-winning city halls (see also pages 39, 67, and 109) are very much in the news. The one above, though it doesn't appear to be in a city at all, was designed by Robert Mittelstadt. It lies on the east side of San Francisco Bay in the geographic center of five communities that incorporated in 1956 and called themselves Fremont. The building's inverted pyramid of upper floors, its sturdy concrete piers, and projecting council chamber are reminiscent of Boston's (page 39). But a fortress may have more immediate validity here: it rests between two parallel branches of an active earthquake "creep zone" known as the Hayward Fault.

UPBEAT IN HARLEM

The eight duplex and two simplex apartment buildings of Riverbend Houses, by Architects Davis, Brody & Associates (seen above from across the Harlem River) are now mostly tenanted by moderate-income Negro families. The $14 million cooperative project has exterior entrance corridors and "front porches" for floor-through duplexes, private terraces for simplexes, connecting plazas for tenant use only, and spectacular river views. It will be an extraordinary exception to most other, dreary Mitchell-Lama projects when landscaping and furnishing of outdoor areas are completed and ground-floor shops are occupied, with the advent of warm weather.
SPACE-AGE THEATER

Houston closed out 1968 by launching men to the moon and by opening its spectacular new home for the Alley Theater company (right) by Architect Ulrich Franzen. With astronauts in attendance, the company, under Director Nina Vance, performed *Galileo* in the larger of the building's two theaters. The play, about the man who opened up the heavens and met his match in the medieval impregnability of the Pope, couldn't have been more appropriate if it had been written for the event. The theater is an innovator if for no other reason than that it breaks with the Lincoln Center neo-classicism currently synonymous with "Culture" around the country. Yet, for all its medieval strength there are virtually no right angles to be found, inside or out, thereby softening the overall effect. The theater's smaller, arena stage opens in mid-February.
EXPLODED CITY HALL

The competition-winning city hall in Marl, West Germany, by Architects Van den Broek & Bakema, abandons the single, massive structure in favor of dispersing its functions in separate, interconnected towers and low-rise structures. The accordion-like folds of the executive building (at left in the photo above, and floor plan) provide a dramatic light source for assembly and council chambers (top). Wrapping around one corner of it is an L-shaped wing containing the mayor's and other administrators' offices. Four towers of varying height, housing government departments, are each constructed around a single column-core topped by a "mushroom cap," from which floors are hung. If necessary, the columns may be extended upward for additional floor space. Connecting all buildings is a low-rise public hall with two green interior courts. A canteen, underground parking, and a police station complete the center.
New York City's Bryant Park is at the back door of the main Public Library on Fifth Avenue and adjacent to the pornography shops of 42nd Street. People attracted to both find their way into the park at different hours, as do office workers, tourists, and panhandlers.

To keep the balance weighted toward respectability, the city's Department of Cultural Affairs now frequently uses the park as a sculpture garden.

From October to mid-January, Bryant Park green (bottom right), bordered with shrubs and shade trees along the street, proved to be an excellent forum for a "dialogue between push and pull." That is how Kenneth Snelson describes structure, and "structures" are what he calls his sculpture.

Their maze of aluminum tubes—the "push"—and stainless steel cables—the "pull"—succeeded, by their size and height, in being intermittently visible through the trees (top right).

The tapered tower in the center of the green (opposite), 18 ft. wide at the base and 60 ft. tall, could be seen for several blocks down West 41st Street; and arranged around the tower were four low-lying constructions, their spidery appendages bobbing slightly in the blustery winds. Like some of the park's habitués, they seemed to have little or no visible means of support.

"The nature of structure" was an admirable quest amid the architectural diversity of neighboring streets. "The conflict between tension and compression resolved in a closed system is concisely what it is all about," Snelson has said. He might have been talking about the city itself.

PHOTOGRAPHS: Ann Douglass

FORUM—JAN/FEB—1969
Though that was not its intention, the Johnson Administration has bequeathed to the Nixon Administration two remarkable documents on the urban crisis.

The more far-reaching of the two is the report of the National Commission on Urban Problems, a 1,500-page, six-volume work that diagnoses and prescribes treatments for most of the multitude of ills that plague our urban areas. The other, a report prepared by the President's Committee on Urban Housing, is less voluminous and necessarily less broad in scope, but no less thorough in covering its territory. A grand total of 221 specific actions are proposed by the two panels.

The reports were prepared independently of each other by panels of sharply different make-up, yet they are notable more for their similarities than their differences. On the one subject which both reports have in common—urban housing—they agree substantially, not only on what the problems are but, more remarkably, on how they can best be solved.

Both reports single out housing as the nation's number one urban problem. Both call for massive federal subsidies so that all of the nation's poor families can be housed decently. Both propose measures for opening up the suburbs to low-income families and minority groups, for reducing housing costs, for reforming building codes and zoning regulations. And both contend strongly that the nation will have to spend much more money in the future than it has in the past if the crisis is to be overcome.

Separate mandates

The National Commission on Urban Problems, headed by former Senator Paul H. Douglas of Illinois, was established by Congress in the Housing Act of 1965 and appointed by President Johnson in January of 1967. It was instructed to "conduct a penetrating review of zoning, housing and building codes, taxation, and development standards, and to recommend solutions, particularly ... to increase the supply of low-cost decent housing." Its membership was drawn from the
move into the community by requiring large lots and reduced density, by prohibiting multi-family apartments, and by other excessive standards that price out poorer people.”

- “Metropolitan local government is Balkanized, a patchwork, and a wilderness. . . . In 1967, our metropolitan areas were served by 20,745 local governments, or about one-fourth of all local governments in the nation. This means 91 governments per metropolitan area—an average of about 48 per metropolitan county. If all these units of government were laid out on a map, every metropolitan area in the country would look as if it had been ‘nonplanned’ by a mad man.”

- “It is significant that we use the word ‘jungle’ in talking about our cities. For this scene, this setting for city life is not an urban setting for urbane citizens. The city has become a crude and ugly place and those who can do so flee to the urban countryside, to houses set in the green valleys and along the forested hills. The city has become the place where the poor and the discouraged cling together in neglected houses along dreary streets.”

“No single remedy will solve the urban problem,” says the report, in a model of understatement. The commission proposes 149 separate remedies in four broad categories: government structure, finance, and taxation; codes and standards; improvement of the environment; and housing.

Sharing the wealth

In the most far-reaching of its recommendations, the commission calls for a system of federal revenue sharing with states and large urban governments that would provide an estimated $6 billion a year in new monies for urban projects. Under the plan, a specified proportion of the federal income tax base would be set aside as a trust fund for distribution to state and local governments, with few strings attached.

The population of each “state area” (embracing all the governments within the boundaries of a state) would be the chief determinant of the amount it receives, but the funds could be dispensed directly to urban governments without being subject to state discretion. To encourage the consolidation of local governments (thus reversing the “Balkanization” which the commission found to be one of the main causes of the urban crisis), the formula would be more generous with urban governments of 100,000 population or more. It would also reward bonuses for state-local tax effort, with double weighting to state income tax revenues.

The revenue sharing plan is one of a series of commission recommendations designed to (1) encourage the streamlining of state and local governments, and (2) produce the money needed to meet their responsibilities.

In the first category the commission urges the states to take the lead in bringing order out of the governmental chaos—first by studying and formulating plans for accomplishing this, then by providing the legislative framework within which it can take place. The commission also proposes a greater use of councils of governments to put local political decisions and actions in a broader perspective, and the modernization of urban county governments to make them more effective in dealing with city problems. To prod such developments along, it recommends that the federal government cut off all money grants to metropolitan areas which have not made sufficient progress toward pulling themselves together.

As for the second category—money—the commission recognizes that not even the extra billions generated by a revenue sharing program would be enough to do the job, and it proposes a number of federal, state, and local efforts aimed at producing more money.

At the federal level, the commission admonishes Congress to be more generous in funding ongoing federal programs for cities. “One major purpose of this recommendation,” it states, “is to make it emphatically clear that the revenue sharing system should be an addition to, rather than a substitute for” existing programs.

“But most of the action needed must be at the state-local level,” says the commission. Among the actions it proposes: “significant use” by states of a personal income tax and a general sales tax; a “piggyback” arrangement through which metropolitan areas could levy their own income tax and have it collected for them in conjunction with the federal income tax; higher user charges on such local public services as parking facilities, highways, and sewers, to put them on a self-sustaining basis; removal of state limitations on local debt and tax levels; and state assumption of all nonfederal public welfare costs.

Inherently defective device

These fiscal measures, notes the commission, would not only raise much-needed revenue for cities, but would enable them to begin downgrading the property tax, which now accounts for five-sixths of all local tax revenue. The property tax, says the commission, is an inherently defective device: it operates regrettably, hurting the poor proportionately more than the rich; it imposes a heavier burden on housing; and, as presently administered, it is seldom levied uniformly in relation to value.

But, as the commission points out, “replacement of even one quarter of present local property tax yields would require a threefold increase in federal grants to local government.” Given this hard fact, the commission contents itself mostly with offering recommendations for smoothing out some of the more blatant inequities of the property tax system: (1) “limit its coverage, at most, to real estate, tangible personal property used for income-producing purposes, and motor vehicles”; (2) provide property tax relief for poor families; (3) conduct frequent reassessments to take note of changing values; (4) improve appeals procedures to encourage community self-policing of property tax operations; and (5) move “as fully
and rapidly as possible" toward 100 per cent of market value as the property tax base.

Timid majority

In a chapter on land-value taxation, the commission's members engage in a public debate over a crucial question: "the possible desirability of increased use, in the federal-state-local revenue system, of taxes upon the value of land or upon increases in land value, or both." These approaches could, of course, add billions of dollars to city coffers, but the commission majority stops short of endorsing them. Instead, it takes the easy way out by calling for "further study" by the Treasury Department and state governments.

But, in a "minority report" appended to the chapter, Chairman Douglas and three other members are not so timid. They advocate taxing "a large share" of the future increases in land values. Noting that bare land values rose from $270 billion in 1956 to $520 billion in 1966, they state: "The owners of the land received these enormous gains without strain or effort on their parts. The progress of society created these values; the owners of the land received them .... Just below the surface of American life, therefore, there lies the question of whether we should allow this to happen without let or restraint, or whether we should try to take at least a portion of these socially created gains for the benefit of the society which created them." If the increase in land values of the 1956-66 decade had been taxed at a two-fifths rate, the minority points out, "this would have produced around $60 billion of revenue."

Patching is not enough

The commission puts up a solid front, however, on another crucial question involving land: government control of land use in urban areas. In a section devoted to codes and standards, it notes that over the next 30 years 18 million acres of land will come into urban use for the first time. "We have come this far in our urban civilization in a haphazard way, and the result surrounds us," the commission declares. "We cannot afford to let our future urban growth occur in the same way. The present irrational, piecemeal approach to local regulations is retarding progress in urban development. The profusion of regulatory instruments which have developed one at a time for specific purposes cannot be added to or patched up." Thus the commission recommends a series of actions designed to bring about dramatic new approaches to urban development. Among them:

Two new superagencies

- The creation of two new national agencies to develop rational and scientific standards for construction and environmental control. Both would be non-governmental components of the National Academy of Sciences-National Academy of Engineering, and they would join forces to form a Council for Development Standards. Each would receive a $5 million federal grant.

One agency, a National Institute of Building Sciences, would "first, review existing standards regulating the construction of buildings, and, second, prepare and issue uniform building standards based on current knowledge and the most advanced technical criteria for application in federal, state, and local regulations." The other, a National Institute of Environmental Sciences, would conduct a study of "minimum conditions for human habitation (including needs and comfort levels in terms of temperature, acoustics, and privacy); the facilities required for daily living; the development and conservation of the urban environment of land, natural resources, and facilities such as schools, parks, recreation areas, and utility systems; and the protection of man from negative environmental factors such as noise, odors, and other factors which are nuisances or detrimental to daily living."

- State-level legislation that would: (1) give counties or regional governments exclusive control over land use in small municipalities; (2) deny powers to all local governments that lack a "development guidance program"; (3) establish "holding zones" for postponing urban development in inappropriate areas; (4) create government land banks in advance of development; (5) allow Planned Development Districts, both in built-up and undeveloped areas; and (6) impose "substantive limitations" on zoning variances.

- Federal legislation to require that all communities receiving federal grants for water, sewers, and other facilities have a building code that is "not more restrictive than nationally recognized model code standards and subsequently the building code standards to be developed by the National Institute of Building Sciences." (The report notes that only about 15 per cent of the nation's municipalities and townships with populations of 5,000 or more now have a reasonably up-to-date version of one of the national model codes.)

In a chapter entitled "Design and the Quality of Cities," the commission contends that "quality is achieved by a thoughtful process of design—the careful study of every part of a building or city." But, it notes, there is rarely enough money available to support this "thoughtful process." "What we need most of all is working capital for ideas; that is for design," says the commission.

As a start, it recommends that a Design Development Bank be set up to provide such working capital.

Under the proposal, the Bank would supply funds for the development of prototypes, and in some cases for specific "brick and mortar projects," in low- and moderate-income housing, neighborhood redevelopment, urban renewal, or a combination of these. But the commission is vague about who should set up the Bank. It says only that it should be "in an appropriate public, quasi-public, or private agency." And the commission offers no suggestion of where the Bank might get its funds.

Top priority for housing

"We must put housing on the front burner," says the commission, and it devotes the bulk of its report to the problem. The starting point for its housing recommendations is the Housing Act of 1968, in which Congress established a ten-year national goal of 26 million new or rehabilitated housing units, including 6 million federally subsidized units for families of lower income (Sept. '68 issue). The commission pays homage to the Act as a "landmark" in housing legislation, but it considers the goal itself unrealistic.

Instead, the commission proposes an open-ended program of 2 million to 2.25 million new housing units a year, 500,000 of which would be subsidized units for low-income families. "This is an attainable goal," the commission asserts. "It can be met without overstraining the resources of the economy."

How to do it

Although the commission's goal is less ambitious than the Housing Act's, it is far more specific in dealing with the housing needs of low-income families. "The program should be aimed primarily at the poor," it states. "Up to now they have largely been left out. We propose that 100,000 units a year be built for the abject poor—for the family of four with an income of $2,200 or less. Another 100,000 units should be built for the near-poor—for those with incomes between $3,200 and $4,500 a year. These groups have the greatest needs. ... The remaining 200,000 units can be built for those with incomes above $4,500 who cannot afford to buy or rent decent housing on the private market."

That is still a tall order. It adds up to 5 million units of low-income housing within the next ten years alone, yet in the past 30 years federal programs have succeeded in producing only about a million such units.

To "put housing on the front burner," the commission offers a number of recommendations directed at all levels of government. Among them:

- An annual President's Housing Message having the same level of prominence as his Economic Report, State of the Union, and Budget Messages.
• The requirement that the Executive Branch "consciously, deliberately, and in full public view" consider the effects that all major changes in economic policy will have on housing construction goals, and that it state specifically what the effects will be. This, says the commission, would "move housing construction policy to the forefront of the nation's economic priorities."

• Federal efforts to bring about a reduction in the general level of mortgage interest rates.

• Congressional funding of housing programs three years into the future. "Housing takes time to build. We need long-range programs. We need continuity in the programs. We need the authority to make pledges which will be honored."

• Amendments to the National Housing Act to "change drastically" the federal government's "passive approach" to low-income housing. "Cities with staffs skilled in 'grantsmanship' often get a sizeable portion of the available [federal] assistance, while those in greatest need are left behind. Thus, the decision as to who receives help is often made not in direct but in inverse relationship to the need."

• A complete rewriting of federal housing statutes. "At the national level we would be setting general policies as to what needs to be built, by whom, and where. The day-to-day detailed decisions should be left to the builder and the localities."

• The requirement of an enforceable state or local open-land needed for low-income housing. "Cities with staffs skilled in 'grantsmanship' often get a sizeable portion of the available [federal] assistance, while those in greatest need are left behind. Thus, the decision as to who receives help is often made not in direct but in inverse relationship to the need."

• The removal of maximum monthly rent levels and "unrealistic" cost limits in the rent supplement program. "These make the program generally unworkable for new construction in major cities outside the South and Southwest."

• An increase from 6 per cent to 8 per cent in the maximum profit allowed to limited-dividend sponsors.

• Creation of a "seed money" fund to encourage more limited-dividend sponsors.

• Recognition by the Internal Revenue Service of a shorter useful life for depreciation of federally subsidized housing developments. "The 40-year period fails to take into account the likelihood that subsidized housing may depreciate more rapidly than housing developed for occupants with higher incomes."

• The preemption, by federal statute, of usury and foreclosure laws as they apply to federally insured or guaranteed housing mortgages. "The 50 states of the Union have 50 different laws covering usury and foreclosure. Many states with comparatively unattractive usury and foreclosure laws are thus deprived of adequate mortgage funds."

• Greater use of the turnkey approach to public-housing construction, under which a private developer sells the site and completed building to a local housing authority.

• The elimination of federal ceilings on FHA and VA mortgage interest rates. "For many years Congress has refused to face the facts of the money market; namely, investors will seek the highest yield in conformance with their investment policies."

Surprisingly, the private-enterprise Kaiser committee also abstains from recommending any large-scale program of tax incentives for businesses. The most it proposes in that regard is a rather modest 3 per cent tax credit to limited-dividend sponsors of low- or moderate-income housing projects.

Not new, but better

Moreover, the Kaiser committee offers no dramatic or expensive new programs aimed at getting private-enterprise into the slums. Instead, it recommends a series of measures designed to overcome barriers to private enterprise imposed by existing programs and practices:

• The removal of maximum monthly rent levels and "unrealistic" cost limits in the rent supplement program. "These make the program generally unworkable for new construction in major cities outside the South and Southwest."

• An increase from 6 per cent to 8 per cent in the maximum profit allowed to limited-dividend sponsors.

• Creation of a "seed money" fund to encourage more limited-dividend sponsors.

• Recognition by the Internal Revenue Service of a shorter useful life for depreciation of federally subsidized housing developments. "The 40-year period fails to take into account the likelihood that subsidized housing may depreciate more rapidly than housing developed for occupants with higher incomes."

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Significantly, the Kaiser committee asserts that government, not private enterprise, must bear the major responsibility for producing low-income housing. Most of its recommendations are directed at federal, state, and local governments, and most of them parallel closely those of the Douglas commission: a massive federal program of subsidized housing for low-income families, including new subsidies to reach the poorest families; a broad at-
Pedestrian malls may be a boon to pedestrians some of the time, but pedestrians are not fully ambulatory all of the time. Nicollet Mall in downtown Minneapolis is a first of its kind, created for the pleasure of pedestrians once they are in this concentrated commercial center, and for their convenience in getting to it in the first place. The eight-block mall is actually a narrow transitway for buses (and taxis, which must travel the full length and cannot pass any bus); the remaining width of street is saved for pedestrians.

The upgrading of Nicollet Avenue was proposed as far back as 1957, when downtown interests saw their market shrink as retail business began moving out to the suburbs. Barton-Aschman of Chicago was hired by the Downtown Council to investigate the possibilities of improving Nicollet Avenue. Five alternatives were suggested: a transitway, a modified street, a pedestrian mall, a string of plazas, and a series of concourses over or under intersections. A later study by Barton-Aschman in 1961 recommended the transitway as most feasible. Actually, the overpass idea, now called a “Skyway,” is being carried out several blocks to the east (Jan./Feb. '68 issue).

Traffic was a primary concern. It was necessary not to block the cross streets, not to exclude emergency vehicles, and not to interfere with the operations of the retail establishments. Fortunately, only five shops on the avenue would have no other access if Nicollet Avenue were closed, and these were small stores with correspondingly small supply traffic. Fortunately, too, a traffic survey showed that 80 per cent of the cars using Nicollet Avenue were through traffic.

Barton-Aschman was asked to refine the concept in 1961, when the merchants of Nicollet Avenue had given the full go-ahead. At this stage, a curving transitway was suggested, to give changing vistas and varied spaces to the eight-block length.

In 1962, Lawrence Halprin was chosen for the landscape design. The city liked the idea, but would give no money. (The federal government provided a transportation grant of $384,500 and a beautification grant of $483,000). The $3,575,000 mall was financed by a $2,751,785 bond issue, to be redeemed by assessments on property located within 330 ft. of the mall. The assessment formula is complicated, based partly on frontage, partly on square footage (depending on east-west distance from the mall), and partly on nearness to the mall’s center along its north-south axis.

Traffic and business improved

In use, the mall has lived up to all expectations. Downtown traffic is much improved, where it was previously stacked up from turns on and off Nicollet. Bus traffic on Nicollet is also better, since the buses do not have to fight cars. Business is up as much as 14 per cent, and the mall has generated some $49 million in new construction and rehabilitation, in the area including one block on either side of the mall. The Northwestern National Life Insurance Co. headquarters, designed by Minoru Yamasaki, for instance, would not have located here if it had not been for the mall proposal.

The Federal Reserve Bank designed by Gunnar Birkerts (page 100) will also be on the mall. Some retailers would like to get rid of the buses altogether; others see them as essential. (Actually, the 39,736 downtown parking spaces are probably the essential factor in the continued survival of the area.) The city has applied to the federal government for a grant for minibuses.

There is talk of extending the mall, south or southeast, but the lack of businesses in this area would make financing difficult. A study is also under way to upgrade nearby Hennepin Avenue. The tangible impact of the mall is impressive. Its intangible impact, on the people who use it, is large too. Except for the buses they share it with, the street belongs to the people, and both they and the street are thriving on the arrangement.
Halprin wanted unity of design along the mall. All the "micro-architecture" and street furniture (bus shelters, kiosks, benches, bollards, curbs, paving, planters, lighting, drinking fountains, traffic signals, litter baskets) are the same for the eight-block length. But there is variety, too, in "special events" like the self-service post office (above center) and several one-of-a-kind fountains (center left). There are also special events in less permanent form—Swedish dancers made an appearance, and during the recent Christmas season there were festive banners on each lighting standard, and drawings by local high schoolers on the kiosks. The 16 bus shelters (top right) are heated by infrared radiation, and incorporate controls for the snow-melting equipment embedded in all sidewalks. Of the $3,875,000 total cost, only $1.3 million is visible above ground.
Halprin calls the design a conscious effort to preserve the street's present character. "We wanted the new elements to relate, to feel as if they grew into the street in a natural way, not as a superimposed design." He wanted the place to be urban, urbane, elegant—not suburban. Surfaces are therefore hard, materials durable (copper, bronze, granite), planting sparse. He wanted involvement by people—places to sit, art objects to enjoy. A four-sided clock draws interest (center left); a granite fountain doubles as a walk-in sculpture (bottom left). Siting of most elements—benches, a specially commissioned Calder mobile (top right), fountains, planters—seems arbitrary and often clumsy. Patterns at smaller scale are more pleasing—tree grating and paving (opposite). Sitting areas have paving of granite and brick; walking areas have special textured terrazzo made to withstand extremes of temperature.
Some design elements show variety within unity—the decorative “hex” symbols at every intersection are similar but different (four photos, near right). But the major variety comes from the street itself, and the meandering curvature of the transit-way. The curve was intended to mitigate the “endless vista” of the typical American street, as Halprin describes it, giving changing views as one progresses, and changing spaces as the width varies. For Halprin, the Mall represents a return to the liveliness of the medieval street. Instead of the customary 60 ft. for traffic, Nicollet Mall uses only 24 ft. The remainder is for pedestrians, in strips that are occasionally as wide as 36 ft. on a side.

FACTS AND FIGURES

PHOTOGRAPHS: Paul Ryan.
A few years after the early deaths of two of America’s major nineteenth-century architects, books were published devoted to their careers. Mrs. Schuyler van Rensselaer’s book about H. H. Richardson, an oversize quarto with splendid heliogravure plates and many linecuts, appeared in 1888, two years after Richardson died at the peak of his career. Harriet Monroe’s life of her brother-in-law, John Root, came out in 1896, five years after he died at the comparable peak of his career. Richardson was 48 at his death, Root only 41. But with his partner, Daniel H. Burnham, Root had built 27 buildings, mostly very large for their day, in the Chicago Loop alone. It is characteristic of the attrition of our architectural heritage that only three of these survive. Happily one of them is the Monadnock Building on which Root’s revived reputation in the mid-twentieth century is largely based.

Both of these major documents of American architectural history have lately been reprinted by the Prairie School Press, making more readily available much significant material that was often hard, or impossible, to find. (The original edition of Mrs. van Rensselaer’s book was of 500 copies only.) The plates in the Richardson book, also reproduced in the new edition, remain the finest illustrations of Richardson’s work, and to its text all students of Richardson must recurrently return.

The Root book was perhaps never so rare an item; but its illustrations, though profuse and including some reproductions of Root’s own drawings, were predominantly small linecuts made from etchings and drawings by Charles F. W. Mielatz. These could not, to twentieth-century eyes, carry the conviction of the plates in the Richardson book. Moreover, while Mrs. Van Rensselaer wrote as an experienced architectural critic, Miss Monroe was no critic but a close personal friend, and relative by marriage. She was, of course, a poet of considerable reputation and a force in American literature, but the Root text does not rate highly in the roster of her writings.

One can only be grateful to the Prairie School Press for bringing out a new edition—identical except for an Introduction by Reyner Banham—of the original Monroe book. But its limitations, especially as regards the illustrations in contrast to those in the Van Rensselaer book, remained daunting to anyone who wished, after the destruction of the majority of Root’s oeuvre, to reassess his architectural contribution.

The new book, subtitled “Buildings and Writings by John Wellborn Root,” collected, edited, and briefly introduced by Donald Hoffmann of the Kansas City Star, is nothing less than a revelation, even to those who thought they knew something of Root’s achievement. The 21 articles, etc., mostly reprinted from the Inland Architect, provide an interesting balance, in the words of the most relevant protagonist of the day, to the tendentious writings of Louis Sullivan, which have too often colored later impressions of the Chicago architectural scene in the crucial years of the 1880s. But it is the plates, illustrating nearly a hundred of the buildings erected by Burnham and Root from the mid-1870s through the early 1890s, that are of inestimable value. A considerable number are new photographs, many of them of buildings long familiar, such as the surviving Rookery and Monadnock buildings in Chicago, but also including some in other cities that are not so well known.

At least as many are taken from the Inland Architect, a periodical not available in any East Coast library. Others evidence
Hoffman’s assiduity in seeking out early photographs in the collections of the Chicago Historical Society and other similar sources. The result is a roster of illustrations, admittedly of varying technical quality, such as exists for no other architects of the period, except Richardson and Sullivan.

The reassessment of Root’s achievement that this book makes possible will not displace Sullivan as the greatest designer of the early heyday of the skyscraper or Jenney as the greatest technician. But the material, literary and pictorial, that Hoffman has brought together broadens enormously our historical picture of those great days in the Middle West when the skyscraper came to early maturity. It also makes evident that distinguished commercial buildings were not rising then only in Chicago, but in several cities whose architecture has never had the prestige of Chicago. One may mention the Santa Fe Railroad’s office building in Topeka, Kans., of 1883-84; modest railway stations in Fort Scott, Kans. and Kewanee, Ill.; the Board of Trade Building and the Midland Hotel in Kansas City, Mo., both of 1886-88; and above all the American Bank Building (Kansas City, Mo.) of 1887-88, the finest surviving work of Root outside Chicago. There are also the Western Reserve Building and the Society for Savings Bank in Cleveland, the latter still the finest skyscraper in that architecturally unrewarding city, earlier in date than Knox & Elliott’s very Sullivanian Rockefeller Building. The Chronicle and the Mills buildings in San Francisco, of 1888-89 and 1890-91, respectively; and the Equitable Building in Atlanta, Georgia, of 1890-92 are illustrated also. Of the splendid Mills Building Hoffman properly notes that “the design was conceived a few months earlier than that of Adler & Sullivan’s Wainwright Building in St. Louis,” their first real skyscraper.

Such notations, most particularly the larger one comprised of the long and complicated history of the designing over the years 1884-89 of the Monadnock Building (which Hoffman first read as a paper at the annual meeting of the Society of Architectural Historians in Cleveland in January, 1966, and later published in the Society’s Journal), lead one to hope that Hoffman will follow up this admirable, but somewhat special, compilation of Rootiana with a detailed study of Root’s architectural career. It is evident there are few chapters of American architectural history whose further investigation would be so rewarding.


REVIEWED BY S. VON MOOS

José Luis Sert, born in Barcelona, Spain, in 1902, has become one of the leading representatives of what is now called the second generation in modern architecture. This book, a rich documentation of his work with plans and photographs (in both black and white and color), was created in close collaboration with Sert himself.

In 1927, while studying architecture in Barcelona, Sert invited Le Corbusier to lecture there. In 1929-30 Sert worked in Le Corbusier’s studio in the Rue de Sainte, and it was there that the first sketches for the Barcelona “Master Plan” (1933-35) were drawn. The famous “Gratte-Ciel-Cartesien,” a key formula for all the Corbusian town plans of the 1930s, appeared for the first time in this Barcelona plan. In these years, Sert worked with the Barcelona CIAM group (“GATE-PAC”) for the renewal of an architecture that was closely connected with another renewal: that attempted by the young Spanish Republic. GATE-PAC opened its club and exhibition rooms in Barcelona on April 14, 1931, the day the Spanish Republic was proclaimed.

This relation of the GATE-PAC group with the Spanish Republic, a very hopeful one that ended tragically, was one of which everybody involved in can be proud—especially today, at a moment when architectural trends, all too reminiscent of a fascist past, seem to prepare a glamorous comeback.

In 1937, Sert moved to Paris. Here he gave, once more, testimony for the Republic, which, by then, was already mortally wounded. He built the Pavilion of the Spanish Republic at the World’s Fair, where Picasso showed his “Guernica” for the first time. These heroic monuments of resistance against the Nazi bombers were further supported by works of Calder, Miró, Gonzales, and others.

After the end of the Republic (in 1939), Sert moved to New York, where he founded the Town Planning Associates with Paul Lester Wiener and Paul Schulz. The planning of Ciudad dos Motores (1945-47), Chinbote (Brazil; 1948), Bogotá (1949-53, with Le Corbusier) was the result of this teamwork.

In 1953, Sert (who was president of CIAM from 1947 to 1956) became professor of architecture at Harvard University and dean of the Graduate School of Design, a position he holds today. In Cambridge he entered partnership with Huson Jackson and Ronald Gourley, with Joseph Zalewski, associate.

In the eyes of a European observer, today’s architecture in the United States appears to be a rather puzzling jungle of progressive ideas, on the one hand, and of feelings which can only be qualified with that adjective “reactionary,” on the other. Many try to bring back to architecture what “rationalism” seems to have excluded: “tradition,” as a repertory of forms, and, above all, an easy ground for communication between architect and client. In the context of present architectural activity, one may notice how Sert’s ar-

Continued on page 134
A CITY NO ONE KNEW

The Amoskeag Millyard in Manchester, N.H., is a "megastructure" constructed between 1838 and 1915, and now being destroyed in the name of urban renewal.

BY RANDOLPH LANGENBACH

Mr. Langenbach, a 1968 graduate of Harvard College, has documented and photographed the Amoskeag Millyard over the last two years as an independent study project and as part of a survey undertaken by the Smithsonian Institution and the Historic American Buildings Survey.
Those who look at the chaotic cities of today and dream of a new kind of order— "megastructures" to fit megaproblems— should take note of one area where urban design did take place on a level of competence unmatched elsewhere in the nation—an area which is now being destroyed in an ill-conceived urban renewal effort.

The Amoskeag Millyard in Manchester, N.H., was built and rebuilt over a period of more than 75 years—1838 to 1915. It bridges the Industrial Revolution, tying the simplicity and classical unity of the New England colonial town with the dynamic intensity of the modern industrial city, combining in its fabric the pastoral dignity of great barns with the urban density of a European marketplace. The millyard design segregates rail, truck, and pedestrian access with an ease and clarity that makes some of our more celebrated contemporary efforts in this direction seem confused.

The millyard plan is a simple one: two canals, parallel to the river, with the mills between the waterways and housing for the workers on an adjacent strip farther from the river. The nucleus of the design was the single mill on one side of a canal and six rows of housing directly opposite. These units acted as links in an ever-lengthening chain as the millyard expanded in both directions along the canals. The complex remained open at both ends, allowing trains and trucks to run unrestricted between the mill buildings without interfering with city streets. The workers crossed bridges into the millyard directly from their houses.

Continuous buildings

The whole development became the great urban design that it now is when the secondary buildings along the canals were joined together to form a regular and continuous wall between the millyard and the city. The millyard's internal spaces are defined by these long, low buildings facing the moatlike canals. Penetration is provided by archways and bridges in much the same way as in an English cathedral close.

Both the mills and the workers' housing are stylistically conservative for their times. Except for a few examples of High Victorian fantasy in the towers and gateways, the buildings are remarkably plain. The reason for this restraint in the design of individual buildings becomes apparent when one enters the complex. No structure stands isolated; instead, the dense, continuous mass of red brick buildings flows together into an organic whole. Highlights are provided by the towers which rise above the complex, acting as focal points not for single buildings, but for the whole group.

What distinguished the mills in Manchester from those in other New England towns was that they were all planned and built by the engineering department of one company, and it is this unified planning control that is the key to its great design. Its architecture is a corporate architecture, using the design elements of an age, rather than one individual's creative expression.

Design by evolution

It is hard to say how much of the millyard's quality is the result of chance, and how much is the product of conscious design. But it is known that those who built the millyard had an uncommon pride in the fabric of the plant, and a surprising respect for the value of what had come before their time. Progress for this industry was not marked by a repeated scrapping of the earlier buildings and a total remaking of the environment. Instead, it involved a continual adaptation of earlier buildings to new needs.

In 1961, Arthur D. Little Inc. issued a report to the Manchester Housing Authority after a detailed study of the "economic problems and possibilities" in Manchester. A major portion of this report was devoted to the millyard, because of its importance in the city's industrial base. Several alternatives were studied and discussed, and recommendations were made for renovation of some buildings and the removal of others. Sound economic reasons were advanced for these actions, but there was
also a statement that "even with extensive improvements and upgrading, the millyard will never be an asset from an aesthetic point of view."

Armed with this report, Urban Renewal is now carrying out a project which they describe thus: "The Amoskeag Mill Yard Project is a simple and sensible solution to this city problem. . . . Urban Renewal has carefully assessed the repair cost and location of each mill building and of the canals. Those buildings found either likely to be too expensive to repair or far too narrow for modern manufacturing will be cleared. Their space will be used for the creation of adequate streets for off-street parking and loading facilities. In addition, the canals which exist as open sewers will be filled."

Selective destruction

When this project is carried out, the large, rectangular mills will stand isolated and characterless in a sea of trucks and automobiles. The dramatic continuous wall along the river bank will no longer face the highway on the other side, and the quiet spaces along the canals, divided from the bustle of the millyard by the continuous three-story canal buildings, will be swallowed up in the bustle. The buildings that will be lost are not the largest ones, but in terms of the millyard environment they are the most important.

Throughout history the "simple and sensible solution" has rarely been the most creative solution, but frequently it has been the "final solution," and so it is for Manchester. The shallow observations on which this solution was based were vividly paraphrased by one person on the Urban Renewal staff who said, "What person have you seen who will walk more than 100 ft. to wherever he is going?" This seems to be the kind of observation which is determining the development of our cities.

The Amoskeag Renewal Project is proudly mentioned as the nation's first industrial area renewal and rehabilitation project. Why is it that an Urban Renewal first is always an Urban Renewal worst? (Remember Boston's West End.) Why do we so often have to learn from disastrous mistakes rather than creative ideas?

Manchester is a rare example of a city that grew according to a master plan. The town was completely laid out on paper before a single building was built or a single lot sold by the controlling company. In 1807, when Samuel Blodget announced the establishment of the "Manchester of America" in what was then the town of Derryfield, N. H., it is doubtful that even he had any idea of the scale of the complex which would eventually be built.

In 1838, the laying out of the New Town and the construction of the first mills began. The magnitude of this effort can be sensed when one observes that the two granite-lined canals were constructed to their entire one and one-half mile length before the first mills were put into operation. At the very start, water power was provided for a strip of land large enough for a half century of growth—until the introduction of steam and electric power made the canals unnecessary. The Amoskeag Company turned a village of 125 inhabitants into a city of 10,000 people in ten years, and went on to become the largest textile manufacturer in the world, turning out cloth at the staggering rate of 50 miles per hour by 1915!

Corporate achievement

The history of Manchester, however, is not simply one of superficial greatness. It is not like that of Williamsburg, the real lives of whose early figures have been buried beneath the volumes of schoolboy textbook rhetoric, and whose town center has been embalmed and manhandled into something which is more Rockefeller baronial than real colonial. Like its immediate predecessor, Lowell, Mass., the community of Manchester was founded on early 19th-century utopian principles of providing for the complete life of the millworkers within a closed and carefully set-up community, in reaction to the squalor of earlier industrialization in Eng-
Accordingly, for most of its life, the Amoskeag Company was unabashedly paternalistic. Later, when competition from the South cut into revenues, early ideals were forgotten, and both company and city began an agonizing decline.

When the huge company was liquidated in 1936, it left behind a legacy which encompasses a total scope of human experience. The mills are important not only for their great design, but also because in them we can capture some of the meaning of the lives of those who worked there during a whole century of growth and decline. It is for this reason that the destruction of the Amoskeag Millyard is such a profoundly tragic act.

Despite its revived economic vitality, Manchester is still, psychologically, in the midst of the Depression. Instead of making any effort to produce farsighted plans befitting a growing city center, Manchester's Urban Renewal Agency has carried out several stop-gap projects, wiping out whole city blocks for parking lots and cheap, suburban-style supermarkets, while the separate City Planning Board across the street has produced pretty drawings showing banal glass boxes surrounded by the "ample parking" characteristic of everywhere else in America.

Urban vision needed

The real tragedy of the demolition is that the ends sought by the Urban Renewal planners could be achieved without the destruction of the millyard design. Congestion has been caused primarily by the lack of any traffic control within the millyard or at its entrances, rather than because of the millyard's density; the need for parking space could be met with better results by building garages compatible with the urban center Manchester should be, rather than by paving over that center.

When the enclosed spaces of the millyard are gone, and the winter wind whips across the river and over the acres of asphalt, those who work there will discover in one way how unthinking the planners were. The fact that a major part of the space in the millyard will have to be vacated under the plan leads to another observation. The University of New Hampshire, which is currently planning a new Merrimack Valley branch, had the opportunity to create here what would certainly have been the finest urban campus in the country. Instead, with all of the powers available to a large university, they felt unable and unwilling to surmount the mundane problems of parking and renovation. It is ironic that while the millyard is being destroyed, the university will be building a campus on open land which will probably be yet another paved-over field surrounding unrelated buildings.

Opportunity forfeited

Instead of making the millyard an integral part of the commercial and business core of the city by creative re-use of buildings and solving of essential problems, Manchester has chosen to trade its chance to become a metropolitan center with a visual identity for short-term improvement of conditions for a few selected industrial plants.

What Manchester really needs is bold creative planning instead of short-range plans which are obsolete before they are completed, and which add nothing new which might expand the lives of people or cause the city to grow. The goal of city planning should be to leave something which can endure in the midst of rapidly changing times, and which can provide continuity to the growth of a community instead of contributing to the chaos which may eventually destroy it.

The millyard is one of those rare instances when the social, economic, and technological characteristics of an age, combined with the shape of the particular site, produced a unified work of art. City building rarely reaches the level of art, and when it does, it becomes as priceless as the work of the most famous painters, sculptors, or composers—and more universally meaningful to the peoples of the nation and the world.
FLORIDA MINIVILLAGE
Fitting four living units and an architect’s studio onto a 60 ft. by 110 ft. lot is a prosaic little problem, and the odds against solving it in an interesting way are enormous. Architect Donald Singer of Fort Lauderdale has not only come up with an interesting solution; he has created a four-family village, with an intriguing interplay of angular building forms, walled gardens, and shady passageways.

He has manipulated the geometry of his floor plans with such ingenuity that each of the four units seems like a private dwelling, with its own facade and entrance and its own private gardens. And he has dovetailed everything onto the site so neatly that the canopy of live oak foliage that shades it has hardly been disturbed in any way at all.

Although the geometry of the building’s plan (above) is quite unconventional, its outer boundaries were determined—almost to the last inch—by the local zoning board. Singer built right out to the edges of the 36 ft. by 70 ft. “buildable” rectangle,
mainly so that he could preserve the four huge live oaks on the site. Saving them involved not only leaving wells for their massive trunks, but keeping the roof level around them low enough so as to allow for their low, spreading branches.

Since many of these branches were so low that they would not even clear a conventional one-story structure, the first floor had to be sunk down into the ground. At the entrance to each of the units, the ceiling height is only 7 ft.; steps lead down 2 ft. from these entrances to each of the major rooms, which have 9-ft. ceilings. A partial second floor, fitted between the volumes of two big oaks, contains the owner's living room and studio.

Because the small corner site is exposed to passersby and close-by neighboring houses, outdoor spaces for all of the units had to be walled in for privacy. Singer put a 5-ft. wall (the maximum height allowed under the zoning ordinance) around each bedroom garden and de-

The second-floor penthouse (top left) contains the owner's architectural studio and his living room. A view from a second-floor window into one of the tree courts (bottom left) shows how narrowly the spreading live oak branches clear the first-story roof. The architect's studio is linked to ground level by a stair (top right) which leads down into this same court (facing page). Courts outside the bedrooms are enclosed with 5-ft.-high walls (middle and bottom right). Since the courts are 2 ft. lower than surrounding grade, the trellis over the owner's bedroom garden (middle right) is below the top of the surrounding wall (top left).
fined the living room gardens (maintained by the individual tenants) with 30-in.-high walls. The owner's second-story space is planned so that none of its windows overlook any of the tenants' gardens.

There are no surprises in the construction of the building; it has the same kind of stuccoed concrete block walls and wood-framed roof as the typical tract house of Southern Florida. But Singer has exploited the visual possibilities of white stuccoed walls, shaping them into angular, prismatic forms with punctured openings and using them as a backdrop for the silhouettes and shadows of subtropical foliage. Without consciously trying, he has produced an environment very much like a fragment of an old Caribbean town.

FACTS AND FIGURES
PHOTOGRAPHS: page 92 and 94 (middle right) Peter Bromer; others by the architect.
Thomas J. Monaghan, the mayor of Lancaster, Pa., didn’t seem to know that it couldn’t be done, so he did it. Without even asking for federal aid, and treating all insurmountable barriers as though they didn’t exist, he brought off a demonstration of a low-cost housing construction system that could help to revolutionize American housing production.

In mid-December workmen were putting finishing touches on the three demonstration town houses pictured on these pages. They are prototypes of the Mitchell Framing System developed by Neal Mitchell, a professor of construction at Harvard’s Graduate School of Design and head of Neal Mitchell Associates Inc., a Cambridge team of architects, engineers, planners, systems analysts, and social researchers.

To get the units built, Monaghan spurred on his city departments, whipped up support from community leaders, got around the city’s prohibitive building codes, won the cooperation of local trade unions, negotiated a site, and secured a $40,000 construction grant from the Pennsylvania Power & Light Co. He made it all look easy, yet he accomplished what few others have been able to do.

In recent years literally scores of schemes have been devised for producing vast quantities of low-cost housing through the use of mass-production techniques and systems technology, but only a mere handful has ever been built. The problem has been, and still is, a combination of bureaucratic red tape, archaic building codes, union opposition, and the high initial cost of producing prototypes.

Most of the industrialized housing schemes tested out in recent months have been box systems, usually employing units produced by mobile-home manufacturers. Mitchell’s is a component system, using factory-produced parts that are fitted together on site like a giant Tinkertoy set. It consists of three basic structural elements: columns, beams, and floor-roof slabs.
outlets. "A guy could remove a wall, take it down to the hardware store, and trade it in for a better wall. Then somebody else could buy the second-hand wall. It's like buying a second-hand car. We insist that everybody has to have new housing, yet we don't insist that everybody has to have a new automobile or television set."

Mitchell is an optimist, but he knows as well as anyone how agonizingly difficult it is to make a breakthrough in industrialized housing. Two years ago, his system was selected by the Archdiocese of Detroit for a 500-unit development on the city's near east side (before the 1967 riot). Seventeen demonstration units, financed by a $203,000 HUD grant, were to have been built initially, then the remainder if the system proved feasible. Despite HUD's moral and financial support, the proposal ran into all the familiar roadblocks: the labor unions, the building codes, the hostility and foot-dragging of city administrators.

Ground was finally broken for the first 17 units in November, but not until HUD itself had fought the project through the entire power structure of Detroit. To placate building officials, HUD even got the National Bureau of Standards and experts from the National Academy of Sciences and the Army Corps of Engineers to conduct a full-scale structural test of the system. It exceeded every requirement.

"Low-cost housing in the big cities is going to be an extremely difficult thing to do within the foreseeable future," says Mitchell. "What excites me is that cities the size and scale of Lancaster can make major inroads into low-income housing. They have flexibility of management, and are small enough so that the mayor can still control things. Lancaster has a swinging mayor, and he approached the problem elegantly—with a real desire to initiate honest solutions."

(As one example of Monaghan's elegance, he disposed of the building code problem simply by declaring the prototype units "experimental." Thus his city departments were free to work with the designers, rather than against them.)

The Lancaster houses will be furnished and opened for public inspection. Monaghan's hope—and his primary reason for taking on the project—is that local developers will see the merits of the system and decide to build Mitchell units on a large scale, thus alleviating the low-income housing problem in his city. He claims that some developers have already expressed interest.

The Lancaster houses are not an exhaustive demonstration of the Mitchell system. Some of the subsystems had to be installed by more or less conventional methods. The wall panels are not the sophisticated bolt-on units that Mitchell envisions. And the $11-per-sq.-ft. cost of the units does not put them within the reach of the lowest of low-income families. But all these shortcomings can be overcome by volume production, Mitchell claims. Given sufficient volume, he estimates that a three-bedroom unit, for example, could sell for about $8,000, exclusive of land costs.

"A lot of people are very enthusiastic about the idea, and a lot are skeptical," says Mayor Monaghan. "I don't know who is right, but somebody has to start somewhere. I think we have waited long enough. The problem of providing good, low-cost housing has got to be solved."

If more Thomas J. Monaghans would come along, perhaps it could be.

FACTS & FIGURES


PHOTOGRAPHS: Martin Marietta Corp., except page 99, George Pohl.
Mitchell's modular system (erection sequence opposite) is adaptable to an almost infinite variety of shapes and sizes. The three Lancaster town houses have amenities not usually found in low-cost housing: generous decks, balconies, large closets, and spacious kitchen-dining areas. The five-bedroom unit has a two-story-high living room.
Up to now, the nation's 12 Federal Reserve Banks, like central banks the world over, have been securely sealed behind inscrutable Renaissance facades. The new Federal Reserve at Minneapolis—the first completely new head office in the system since its first round of building (circa 1920)—will be a complete break with that tradition.

Architects Gunnar Birkerts & Associates have literally broken the bank into two distinct parts, which house the two very different kinds of activities that go on inside. The "secure" portion of the bank's operation—the areas where valuable securities are transferred and stored—will be hidden under a 2.5-acre sloping plaza. The visible portion of the complex will be an office structure unlike any other ever built—a bridge 11 stories deep with a clear span of 275 ft., almost the full width of the site. The purpose of this structural feat was to avoid putting columns down through the intricate complex vaults and truck ramps below the plaza.

The structural system that makes this span possible is a braced catenary scheme worked out by Engineers Skilling, Helle, Christiansen, Robertson, which uses the entire area of the major facades as rigid frames.

A plaza as big as the site

Between the cave-like treasure house below and the suspended cage above, virtually the entire site will belong to the public. (The "coverage" of the building, by zoning definition, will be only 2.5 per cent!) Unlike the typical office building "plaza," this open space will not lead into the building at all; it will be strictly a public square.

The location of this plaza, at the north end of Nicollet Mall (page 74), makes it a particularly valuable asset to the Gateway Center Renewal Area, which links the downtown core to the Mississippi riverfront. The renewal plan called for a wide plaza at this point, just before the linear mall passes under the portico of the Northwestern National Life Insurance building by Yamasaki (Sept. '62 issue). Birkerts has given powerful emphasis to this sequence of expanding and contracting space.

The meticulous client

When it became clear that the present Minneapolis Federal Reserve Bank could not be expanded enough to handle expected loads, the bank's officers went about planning for a new building in a way that could serve as a model for other clients. (The Federal Reserve system is not subject to many of the design and building regulations that ensnare most Federal agencies.)

As a first step, the bank president, Hugh D. Galusha Jr., brought in an architect (Ellis Kaplan of San Francisco) to advise on the choice of a building architect. With his participation, the building committee considered a competition, and dismissed the idea (too much of the client's role in "conceptualization" would have been surrendered to jurors).

The selection of an architect began with a list of 14 firms (four from within the bank's district). After preliminary interviews, the field was narrowed to five firms (from five different states, all outside the district). Galusha, Kaplan, and the chairman of the building committee visited all five offices and many of their completed projects. They were looking for recognized design excellence, of course, but they had a number of other revealing criteria, such as the caliber of the firm's middle-echelon personnel and its willingness to relate design to the community.

The office block of the proposed Federal Reserve Bank in Minneapolis will span 275 ft. clear across a city block in the Gateway Renewal Area (photo below right). The granite-paved plaza below this structure will slope gradually up from Nicollet Mall (foreground, above right). Groves of trees will define the mall (plan, right) and form a gateway to the main portion of the plaza, a setting for outdoor concerts or other gatherings. Railings around the trees and at the elevated edges of the plaza will double as benches. On the Marquette Avenue front (bottom right) entrances through the 20-ft.-high wall beneath the plaza will lead to the "secure" lower levels and to the banks of elevators that run up the center of this facade.
A cage hanging over a hidden stronghold

The unique two-part design of the building is a direct expression of the peculiar organization of a Federal Reserve Bank. The two distinct parts of its operations, the administration and the handling of valuables, need hardly any physical connection at all.

The administrative part is much like any office building, except that very few people other than employees ever enter it. The other part, the secure area, must be literally a fortress, yet readily accessible to streams of trucks full of priceless cargo. The exterior must be designed as much to discourage would-be attackers as to actually repel them. (That was, of course, the purpose of the massive stone walls around the original Federal Reserve Banks.)

Here, the secure area will be hollowed out of a granite-clad mass shaped like a natural bluff, which will rise gradually from the level of Nicollet Mall on the west, then drop sharply to the level of Marquette Avenue on the east, where a single pedestrian entrance will be carved out of its 20-ft.-high face. The glass-enclosed administrative block above will look more vulnerable, but it will be out of reach—20 ft. above the plaza.

The plans of the lower portion were determined largely by the patterns of truck ramps, which wrap around the core of store-rooms and vaults. The trucks will reach their loading docks through portals along Marquette Avenue, which provides a direct link to a nearby expressway. A totally separate set of ramps will serve the parking garages.

Each of the ten floors of the administrative block will provide 22,000 sq. ft. of office space—completely uninterrupted by columns or service risers. On many of these floors, almost the entire area will be visible as one enters from the adjoining elevator tower. Private offices will be enclosed islands, partially glass-walled, scattered as needed across the clerical spaces, so that each employee will enjoy views out through heat-absorbing glass on either side of the building.
An unprecedented structure with growth potential

There was no prototype for the bank's structural system; no occupied floors had ever spanned 275 ft. before. In order to get the necessary stiffness (much greater than that of a roof or a highway bridge, for instance), the engineers had to use the full ten-story height of the two side walls for rigid structural frames.

Several types of truss were considered, but the system that turned out to be the lightest and most economical was a braced suspension system. The primary supporting members will be catenaries composed of cable and welded steel plate. All floor loads will be transferred to these catenaries, which will be braced against unsymmetrical loads by a 28-ft.-deep truss at the roof.

A virtue of this unique structural system is that it will allow potential 50 per cent expansion of the office portion of the building (in conformity with Federal Reserve guidelines) by adding six more floors to the top of the initial structure (photo right).

Obviously, a structural system with a clear span of 275 ft. is more expensive than one with ordinary bay dimensions. The engineers believe, however, that they have minimized the cost. The additional cost will be small compared with the cost of the whole bank—which requires much massive construction beneath its plaza, as well as costly, fail-safe mechanical and communications systems.

Given the task the architects and engineers set for themselves—to make the office block span almost 300 ft. without touching down on the plaza—the design is a powerful one, carried through consistently. It would be hard to put a price tag on its functional and aesthetic values.

FACTS AND FIGURES

Federal Reserve Bank, Minneapolis, Minn. Architects: Gunnar Birkerts & Associates (Charles Fleckenstein, project director; Algimantas Babys and John Mueller, designers). Engineers: Skilling, Helle, Christiansen, Robertson (structural); Jaros, Baum & Boiles (mechanical). Model: James Smith.

PHOTOGRAPhS: Balthazar Korab.

Except for the main catenary member, the structural frames that will form the long facades of the upper building will be made up of relatively light steel sections (detail, right)—wide-flange columns supporting the floor areas above the catenary and flat steel hangers carrying those below. Above the catenary, the glass walls will be recessed behind deep fins and framed into the columns; below, they will be set out in front of the hangers. The entire rigid frame (isometric, facing page) will be supported on granite-clad concrete towers at either end, which have been designed as huge H-columns to resist wind loads imposed on the long facades. The structure will be able to carry six additional stories (photo right), using an arch system that will transfer all loads to the end towers.
FOOTNOTE

Technological revolution — "Ele-
genue supreme describes this living
area of Avion Coach Corporation's
newest design study 31-ft. travel
trailer," the press release explains.
"Free standing love seat is flanked by
cultured [sic!] marble table tops.
Drapery swags match the upholstery
material. The crystal chandelier and
wall mounted globes add a regal
touch." This experimental job, by the
way, is packaged in a streamlined,
gold-anodized aluminum capsule,
straight out of science fiction, Archi-
gram, and Bucky Fuller!

COUNTY VS. COLONY

Antagonism between the Marin
County (Calif.) Board of Super-
visors and the slapdash—mostly
dash—houseboat colony of Sausalito
(below and March '67 issue) has heated up with the board's
passage of a building code for
floating homes.

The code is painstaking: plastic
pipe, which it allows for sewage,
"shall bear (1) company name or
registered trademark of the manu-
facturer (2) Nominal pipe size
ABS-DWV (d) W.P.O.A. seal of
approval . . . ."

The code is firm: "A sewage
receiving tank and ejector device
must be installed aboard every
floating home. . . . Said device
must connect to the local sewerage
lateral system."

And, at least in this matter of
sewage, the code is visionary, Su-
ervisor Peter H. Behr, who, in
December, voted aye in the four-
to-one decision to enact the ordi-
nance, had quoted one month
earlier in the San Francisco
Chronicle: "I feel that houseboats
should be connected to a shoreline
sewer, but it's hard to ask them to
connect to non-existent lines [italics ours]." But, said Michael
F. King, deputy director of the
Department of Public Works,
"they have a year in which to find
something."

(IN A SEPARATE ACTION, 37 HOUSE-
boats were ordered removed from
Richardson Bay for "squatting" on
county streets. The streets, like
the sewage lines, are and are not
there—"paper streets," says King,
platted under water in the bay in
1905.)

Other code regulations deal with:
space (220 sq. ft. for two
people, 100 sq. ft. for each addi-
tional person); height limit (2 1/2
stories); allowable list, with and
without loading; wiring (similar to
the mobile homes code); ramps;
materials; construction; power
supply; fixtures and appliances;
mooring; fire prevention; and life-
saving gear.

To the county, the code "is
intended to protect the health,
safety, and welfare of floating
home occupants." To Dean M.
Jennings, spokesman for the Ma-in Houseboat Association, "their
standards are way out of whack
and they keep pushing them up
beyond what a houseboat owner
can afford."

APOLOGIA

IN DUBIOUS REBUTTAL

• Harold Ostroff, executive vice
president, United Housing Foun-
dation, at the dedication of Co-op
City (top right) in The Bronx,
N.Y. (Nov. '68 issue, page 96):
"Critics of various kinds have
had a field day regarding the im-
pending completion of this new
community. . . . They don't like
the site plan, the architecture of
the buildings, the lack of trans-
portation, the tremendous cost to
the city for the improvements
needed, and the lack of what some
have called human scale in the
design. . . . How many children
will die this winter in fires in
slum tenements while the city
planners continue to haggle over
inequivalent elements like es-
thetic designs . . . ?"

APPEAL FOR FORUM

FORUM CONT'D

ings, conservation groups, civic
associations, city governments, and
major metropolitan dailies drum-
med up considerable support for
the proposed regulations.

As the last flap of a lame duck,
Lowell K. Bridwell's memorandum
may have attained for him his
finest civic hour.

Robert Moses, upon being pre-
sented with a plaque during Na-
tional Co-op Month, for his ef-
forts in making Rochdale Village
(another United Housing project)
possible:
"New York is the world's fanci-
est rabbit Warren of critics. If the
subject is cooperative, multifam-
ily building on vacant land, the
location is wrong, the plan faulty,
the architecture box-like, unimagi-
native and contemptible and the
approaches woefully inade-
quate, reflecting incredible engi-
neering ineptitude and criminal
official neglect. Co-op City will
still rise from the swamps and
lift people from the slums when
the critics have flung their last
rotten eggs and gone to their re-
ward. Pay them no mind.

IN DEFENSE OF MEGABUCKS

When peace comes to Vietnam the
giant defense and aerospace firms
will apply their awesome man-
gerial and technical skills to our
urban problems. Right?

Wrong. According to a recent
article by Bernard D. Nossett in
the Washington Post, military and
space expenditures will continue
to dominate the post-Vietnam
federal budgets. Why? Listen to
Samuel F. Downer, the financial
vice president of LTV Aerospace
Corp., as quoted by Nossitter:
"It's basic. Its selling appeal is
defense of the home. This is
one of the greatest appeals the
politicians have to adjusting the
system. If you're the President
and you need to sell this factor,
you can't sell Harlem and Watts
but you can sell self-preservation.
We're going to increase defense
budgets as long as those bastards
in Russia are ahead of us. The
American people understand this."

And the people who run the de-
FENSE and aerospace firms under-
stand a thing or two about self-
ing their own self-preservation.

“The companies,” says Nossiter, “can be expected to use their influence to make their prophecies self-fulfilling. By no means coincidence, their views of the world outlook usually coincide with conditions that would maximize their military orders.”

With the federal government all but guaranteeing the firms fat profits on military and space contracts, they are not interested in exchanging “megabucks” for the peanuts that are available in the high-risk domestic arena. Nossiter quotes Dwight K. Warner, manager for market analysis of General Dynamics’ Convair Division, on the subject:

“It’s hard to get a handle on this. With a military system, you can analyze the threat, the mission, the required speed and firepower. These are measurable, tangible things. But how do you measure the goals for New York City or Washington? . . . What could we sell? Mass transportation? General Motors and the others have it locked up. The customer we have, we understand him and he understands us.”

So the companies are convinced that they would have nothing to gain and much to lose by “converting their electronic swords into social ploughshares,” as Nossiter puts it. Their attitude is expressed succinctly by James J. Ling, head of Ling-Temco-Vought. “Our future is based on visible contracts,” says Ling. “One must believe in the long-term threat.”

PORTO DEBUT

“Fit tab A into slot B,” approximates how unskilled laborers, in three days time, could assemble a portable theater (below), weighing 80 tons, seating over 1,000 spectators, and designed for either temporary or permanent installation. (Models and drawings are on view through January 31 at New York’s Lincoln Center Library and Museum.)

The prefabricated system was developed for the Arts of the Theatre Foundation—with an existing grant from the Ford Foundation—by Edward F. Kook, lighting expert, Donald Oenslager and Jo Mielziner, stage designers, and Cyril M. Harris, acoustical engineer, all of whom donated their services. These men, under the group acronym KOHM, retained Dr. Lev Zetlin, structural engineer, and Syska & Hennessy, electrical and mechanical engineers.

The collaboration, sans architect, resulted in “Porto,” a theater “in the round,” measuring 112 ft. in diameter, and made up of acoustic wall panels of glass-fiber-reinforced plastic; a circular stage; stadium-type seating, under which box office, lobbies, dressing and storage rooms, orchestra, offices, and toilets are accommodated; a canopy suspended over the stage for light and sound equipment; and an inflated, domed roof (top photo).

For what is, essentially, a glorified tent—complete down to wiring, ventilation, plumbing, and power plant—the system is well engineered for efficiency and economy (cost as low as $350,000, if produced in quantity).

What has been sacrificed—unaccountably—is good looks. KOHM has decided the play’s the thing. But, as Messrs. Oenslager and Mielziner should very well know, applause for the set has never killed a good play.

ARCHITECT DUBUFFET

French Artist Jean Dubuffet’s Tour aux Figures (above right) is a house, not for living in but for “occasional retreat and contemplation.” Inside, the contemplative would negotiate a series of landings about a continuing spiraling ramp, like a mollusk in its shell. To date he has built only an 8-ft.-tall model in cast polyester resin and vinyl paint.

Now, thanks to the Los Angeles County Museum and the American Cement Co., Dubuffet will build it, or a variety thereof. The museum, in an unusual sponsorship setup, will place 20 artists in residence at a variety of industrial plants, mostly in California. Curator Maurice Tuchman has—at last—contracted some inevitable matches: Claes Oldenburg, creator of “soft sculpture,” and Walt Disney Productions; Op Art Victor Vasarely and IBM.

American Cement will contribute $7,000 to the museum and commit its Riverside, Calif. facilities—computers, electron microscopes, X-ray diffraction, high-temperature furnaces, autoclaves, rotary kilns, materials—to Dubuffet. Dubuffet will contribute a 26-ft.-high and, for now, hollow house-tower, which will come apart for transport and reassembly, and will require new techniques for casting or molding irregular shapes in concrete.

He will be paid by the museum—$250 per week; $140 per diem expenses, plus air fare—and will work at Riverside for six weeks, beginning in mid-February, and again for at least six weeks later in the year.

His and the other artists’ works will be on exhibit in the museum’s two-story exhibition building, sculpture plaza, and park in the spring of 1970.
is projected at $300 million, and the Army Corps of Engineers, on the basis of its studies of the area, is expected to recommend it to Congress this summer for Public Works appropriations on a year-to-year basis.

Meanwhile, the commission is drawing up a preliminary master plan. Its chairman, Commissioner Paul N. Ylvisaker of the Department of Community Affairs, envisions a new kind of urban complex, on an unprecedented scale, for the burgeoning North Jersey population.

Also under way is a survey by the Department of Conservation and Economic Development to determine which properties are tide-flowed and thus owned by the state, according to a recent State Supreme Court decision (Dec. '67 issue, page 83). Companion legislation has provided for the appointment of six new justices to help expedite title claims.

The rest awaits the patronage or penury of a new Administration and Congress.

**WINNERS**

**DUTCH TREAT**

A two-stage international design competition for a new city hall in Amsterdam, which drew 803 initial entries, has been won by Moga I Ltd., a triumvirate formed two years ago by Architect Wilhelm Holabauer of Vienna, Gerald McCue, chairman of the department of architecture at the University of California in Berkeley, and Donald D. Hanson, chairman of the department of architecture at the University of Illinois at Chicago Circle.

The city hall (top) lies within a curve of a major canal, the Waterlooplein. The building's boldest element is a T-shaped tower with council chambers in the cross-bar (see section). Its base, a public plaza, is two stories above grade. Stepped outward and upward from this plaza are three L-shaped roof-terraces culminating at the five-story level. Here, light is introduced into offices from both sides of the L. Long trough skylights separating the terraces introduce light to the spaces below.

In addition to the usual administrative offices, chambers, and ceremonial spaces, one extraordinary requirement was met.

Since the city performs as many as 150 marriages a day, the building contains a goodly number of small "matrimonial chambers."

"We wanted a low, quiet silhouette," says Hanson, "to be consistent with the character of this city." But low and quiet is far from modest. At 75 million guilders, its cost is comparable—give or take a million—to Boston's (see page 39).

**GADGETRY**

**SCAVENGER HUNT . . .**

How would Buck Rogers rescue the American consumer from burial in his own garbage? (The average American disposes of 5.3 pounds of refuse daily, an increase of 60 per cent over 1950, while the population has gone up only 30 per cent in the same period.)

A New York industrial engineer, Alan G. Motz, predicts that laser beams will one day disintegrate waste material, leaving no residue; Dr. Samuel F. Huibert, a materials engineer at Clemson University, has already developed a self-destruct bottle that, when broken, dissolves in four days into a tiny puddle of sodium silicate; and Dr. Frank P. Dee of Rutgers would rocket our trash to the sun—"an excellent incinerator"—which, of course, would destroy the rockets along with the trash.

Other, more serious, proposals are aimed at rescuing the garbage as well as the consumer. The Glass Container Manufacturers Institute believes that glass may be salvaged for reuse in paints, insulation, and building materials. And researchers at the U.S. Bureau of Mines' Solid Waste Research Labs in Edmonston, Md., are seeking ways to reclaim the estimated $7 million in gold and silver discarded each year in such items as gold-embossed credit cards—surely the perfect symbol of affluent consumers in a "throw-away" culture.

. . . AND THE ROUNDUP

Some immediate and down-to-earth solutions are being sought to the garbage explosion:

- An experimental garbage compactor (below), donated by the Fisher Body Co., is being tested by the city of Chicago under a public health grant. The giant machine presses garbage into easily handled bales, made odorless and bacteria-free by the intense heat generated in the process. Bales can then be easily transported to abandoned strip mines and other land-fill projects.

- Denver's National Metal Processing Co. will build a new hammer mill on the Platte River that will reduce an auto or truck body to fist-size chunks of scrap in 60 seconds.

- Though final contract approval must be given, San Francisco has agreed to the Western Pacific Railroad's proposal to haul that city's 1,500 tons of garbage daily over a 375-mile scenic route to the desert in Lassen County. Garbage will be hosed down and sealed in covered cars. Winner in the San Francisco Chronicle's contest to name the train: "The Excess Express." It nosed out "The Raw Trash Cannonball."

**STROBOSCOPICS**

A new kind of "movie" advertising, in which the viewer does all the moving, is being tested on a tunnel wall of the Montreal Metro (below). Some immediate and down-to-earth solutions are being sought to the garbage explosion:

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**STROBOSCOPICS**

A new kind of "movie" advertising, in which the viewer does all the moving, is being tested on a tunnel wall of the Montreal Metro (below). Eighty advertising panels—3 ft. by 3 ft. each, in a continuous band nearly 250 ft. long—are affixed to the wall of the unlighted tunnel. Strobe lights over the panels are activated by photoelectric cells sensitive to the lights inside the train cars. Each panel is triggered independently by the light from a single car window—the viewer's movie screen—and "cuts-out" in the space between windows. As the train passes at 40 mph, the message is conveyed at cinema speed: 16 frames per second.

The pilot commercial, lasting five seconds, was produced for the McDonald Tobacco Co. by the Katimavik Agency, patent holders of the process developed by Jean Antoine Bloc, an electrician, and Nicolas Solligoub, a stage designer for CBC.

The agency has awarded concession rights in London, Brussels, and Paris, and inquiries have been made by other subwayed cities, including New York.
HOW HARRY HELMSLEY SPEARED PARKCHESTER

The American Institute of Architects is not the only AIA. There is also the American Institute of Certified Public Accountants, with three times as many members. Every architect has an accountant, but does every accountant have an architect? There is, as well, the American Institute of Real Estate Appraisers. Every building gets appraised, even those that are not designed.

The appraisers have a monthly newsletter which I have never read without being rewarded, whether it is to be taught the lawful meaning of "mean high tide," or some other pertinent fact. The newsletter is edited very well by Stephen G. Thompson, a former Forum news editor, who has also made executive vice-president of the appraisers. In a recent issue, Steve reported a real-estate transaction that was not only instructive, but which qualified as pure entertainment—first rate financial escapism.

It was about the latest exploit of Harry Helmsley, 59, a famously agile New York real-estate man, and a superior appraiser. His firm is Helmsley-Spear, and his biggest deal until lately had been buying the Empire State Building in 1961 for some $83 million, or slightly less than a million a story. Then last fall he made another buy in New York City for $90 million, probably the highest price ever negotiated for a single property.

The seller was the Metropolitan Life Insurance Co., and the item was Parkchester, a complex including 171 apartment houses on a 129-acre site in The Bronx, with more than 38,000 tenants inhabiting 12,271 dwelling units. Parkchester was built for Metropolitan Life as an investment in 1942; in addition to the legion of apartments, it has a shopping center with more than a hundred stores, a 2,000-seat theater, five parking garages stowing 3,500 cars, a post office, banks, and its own power station. Buildings cover 35.5 acres and streets take 27.4 acres, which leaves 66.5 acres open in greenery and recreation areas. In 1942 it cost Metropolitan Life a total of about $73 million. Today, after a quarter of a century of inflation, duplicating Parkchester would cost at least $171.5 million, say the appraisers.

Why, then, in 1968, was the insurance company willing to sell it for a mere $90 million? One answer is that Parkchester, being a pre-war project, is still rent controlled under New York City law, and the net operating income to the owner, after maintenance, taxes, etc., was about $4.3 million a year which is low, just about 4.7 per cent on selling price. For another reason, insurance companies have learned with some pain that apartment equities are terribly visible investments; they don’t really enjoy being landlords and fighting with tenants who may be policy holders as well. It is bad for that shining image, no matter how the janitor polishes the doorknob and the elevators.

The advantages to Helmsley are manifest. For one, as owner, he can apply to the Rent Control Commission, with some confidence, for a 15 per cent increase in the rent roll, based on the $90 million price he has paid. (When properties switch hands, in such legitimate manner, the law in New York will permit increases to guarantee the new owner 6 per cent profit on acquisition cost plus 2 per cent for depreciation.) Not less important, Mr. Helmsley and his cohorts can begin to depreciate the property for federal and state tax purposes, no small carrot. And there is probably the possibility in his mind of adding still more buildings on all that open 66 acres of real estate.

On the other hand, $90 million is a painful amount of financing to have to arrange in a tight money market. Or is it? Not if the Metropolitan Life Insurance Co. is willing to give you a 90 per cent mortgage.

So Harry Helmsley owns Parkchester; and the Met Life holds a mortgage yielding about 7 per cent to them, so their income has gone up almost 50 per cent from what they realized as owners—from a net of about $4.3 million to about $6.3 million. The insurable thing about real estate is how much happiness it emits for both buyer and seller when it is massaged just right.

START WITH WOOD

FINISH WITH OLYMPIC STAIN

Costs less than paint.
Lasts longer than paint.
Easier to apply than paint.
Protects wood with P.M.O.
Guaranteed not to crack, peel or blister.
66 Colors, solid or semi-transparent.

A billion-dollar development called Metro Centre has been proposed to bridge the gulf between downtown Toronto and Lake Ontario. The project is sponsored jointly by the Canadian National and Canadian Pacific companies, which now use virtually the entire 190-acre tract for their railroad operations. The plan, drawn up by Architect John Andrews, working as one of a team of specialists, would be carried out over a 15-year period, with the participation of city, province, and national governments (all of which are now reviewing the proposal).

Most of the site lies in a strip 1¼ miles long, between Front Street and the lakefront Gardiner Expressway. In the plan, a two-block addition extends beyond Front Street into the present downtown area. Removal of the railroads' freight and maintenance operations allows for construction of new commuter and long-distance passenger stations adjoining the expressway, freeing acreage near Front Street for intensive, multilevel development.

At the crossroads of Metro Centre is a transportation interchange and a broadcasting complex. The transportation hub includes the...
new railroad stations, connected to a bus terminal, an extension of the subway system, and parking garages for 1,300 cars. Television and radio communications are served by a complex of offices and studios and a 1,575-ft. transmission tower—a new headquarters for English-language broadcasting in Canada. East of the transportation center is a hotel-convention-trade mart complex and an office building cluster of six octagonal towers, 18 to 36 stories in height, joined by lowrise office-commercial structures—adjoining the present downtown office district.

West of the broadcasting center is a residential development which will house an estimated 20,000 people in 9,300 units. Tall apartment slabs with sweeping views of the city and the lake rise from multistory platforms containing parking, social, and commercial facilities. Terraced row houses on the south sides of these lower structures face out across open green spaces toward the lake. The spine of the entire project will be a new east-west thoroughfare to be known as the Esplanade (model photo and section below). This multilevel street consists of a pedestrian concourse linked to train and bus terminals below, and roofed by a divided boulevard for local automobile traffic.

Both of the sponsoring companies have already had solid experience in urban development. Canadian National was one of the participants in the development of Place Ville Marie and Place du Canada in Montreal; Canadian Pacific is now involved in plans for renewal on the Vancouver waterfront and in downtown Calgary.
Have we spread our "Bubble" too thin?

We've simply made more of its well-rounded shape. We did it with new pedestals, new materials, even a new molding technology for shaping rigid urethane to the seamless Bubble form. And a new, wider, price range—starting much lower to fit more contract situations. It's all in our new catalog at all our galleries New York, Chicago, Los Angeles, Dallas, Grand Rapids or write Stow/Davis, Grand Rapids, Michigan 49502. Dept. 411
At fifty below
"x" can't be an unknown

The temperature sometimes drops to fifty below at the University of Alaska in Fairbanks. When it does, it is imperative that their door closers work and work right. LCN "Smoothees" are doing the job.

The hydraulic fluid LCN uses is called "X" Liquid but it is not an unknown quantity. It maintains its fluidity at all temperature extremes; keeps LCN Closers operating as smoothly in Fairbanks as they do in Florida. "X" Liquid in itself could be reason enough for specifying "Smoothees." Add good looks, superb engineering, simple installation. It all adds up to the surface-mounted closer favored by architects and owners alike. Look up LCN in Sweet's. Or write: LCN Closers, Princeton, Illinois 61356.

The LCN Smoothee®, chosen by architect Crittenden, Cassetta, Wirum & Jacobs for University Commons, University of Alaska, Fairbanks.
How to be alone in a crowd.

Just before that English mid-term, trig final, or any time the situation calls for "booking it", a student studies best when he's alone. But around test time, libraries and study lounges are mighty popular and crowds form fast. That's where the American Seating Study Carrel comes in — to shut out noises and distractions. Why American Seating? The big plus is flexibility. Name the study situation — then arrange our Study Carrels to fit it.

There's more: an attractive Amerex® side and front panel and a durable, easily cleaned Corktone Amerex writing surface. The offset pedestal standards let a student slide in and out with ease, and give him more leg room once he's seated. Carrels are available in a variety of models and may be equipped for communication with electronic resource centers.

Help students get out of the crowd with our easily installed Study Carrels. Talk to your American Seating educational equipment specialist or write to Department AF-658-A, American Seating Co., Grand Rapids, Michigan 49502.
You want your building at the lowest possible cost.

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B. ELECTRICAL EQUIPMENT
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E. FURNISHINGS


F. HARDWARE

2. 16 pages of catalog and spec information on LCN Door Closers, includes surface mounted, overhead concealed, in-door concealed, and floor models. LCN Closers. Request F-2.

3. Door Closer Product Data Sheet describes new door closer with wide range of mounting applications for most door conditions. Includes features and sizing charts. Sargent & Co. Request F-3.

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1. Illustrated 20 pg. brochure presents technical and structural design data on values of rigid urethane foam as a structural insulating material Mobay Chemical Co. Request J-1.

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P. OPERABLE WALLS
1. 4-pg. brochure on space dividers "What Can You Do With Hauserman's New Schoolmats". E.F. Hauserman Co. Request P-1.


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W. PROFESSIONAL MATERIALS & SERVICES
This apartment building came in $100,000 under the estimate. 8" Brick-Bearing Walls provided the structure, exterior and interior finish, fireproofing, and sound control.

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Muskegon, Michigan

Architect and Structural Engineer
DeVries & Associates

General and Masonry Contractor
Muskegon Construction Company

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8" brick bearing walls are used through the entire 11 floors of Muskegon Retirement Apartments, in Muskegon, Michigan. The structural system consists of 8" brick bearing walls and 8" precast concrete floor planks topped with 1½" of concrete. Eliminating the traditional building framework offers economies, and permits infinite design possibilities. One example is shown in the exterior corner detail to the right.

Construction is simple, and rapid, because all brick wall thicknesses are identical from foundation to roof. In essence, Muskegon Retirement Apartments is a series of 11 one-story buildings, one atop another.

Complete details, including a thorough cost-breakdown of 40 major elements of the building are contained in an 8-page brochure that you can have. Ask your brick salesman for SCPI brick bearing wall Case Study No. 16. Or contact SCPI.
SMART REASONS WIN COLLEGE CONTRACT FOR URETHANE FOAM

Mr. Lawrence points to a cast-waffle maze ceiling, one of many reasons sprayed urethane foam was only practical choice. Any other method would have required at least twice as much material to meet specs, increased man-hours, material handling problems and risk.

The new Murray D. Lincoln campus center of the University of Massachusetts will be a $16-million, 11-floor (2 below ground) pre-cast and cast-in-place concrete building. It will house conference centers, 100 guest rooms, restaurants, a bookstore, an underground garage and specially designed student facilities.

A most crucial requirement is the thermal insulation which, in major areas, will consist entirely of rigid urethane foam, sprayed to a 1" thickness over 140,000 sq ft of tricky interior surfaces. Application is by Atlas Insulation Co., Inc., So. Acton, Mass., doing the entire job with only a 2-man crew—one man on the spray gun, one on the equipment.

Mr. Alfred A. Lawrence, sales manager for Atlas, says: "There are a number of ways we saved the customer real money by using sprayed urethane foam insulation on this job. For example:

Time: "The complex ceiling panels in the plaza area are of waffle design. Insulating them with fixed or fibrous materials would have been extremely tedious, cumbersome, costly and ineffective. With any other form of insulation, we would need at least an 8-man crew to match our 2-man pace and stay ahead of the other trades."

Money: "Our quote on this job was under 30¢/sq ft. That’s a lot of insulation for the money. Other insulants would have doubled this cost because of the need to cut around angles, apply adhesives, moisture barrier, fasteners, etc. Sprayed urethane foam is completely seamless, seals every crack and void. It is self-bonding and will adhere to almost any surface. There will never be a moisture or heat leak anywhere, any time."

Safety: "Urethane foam sets fast, permitting other trades to move along without delay. Much welding and torch work follows our phase, but there is no risk with fire-retardant rigid urethane foam."

Space: "You can’t beat the compact nature of urethane materials and equipment. We brought in 26 55-gal drums at a time, and doubt if they took up more than 100 sq ft of the working area. Any other materials would have required huge areas for stacking, plus much additional equipment, such as staging and rigging."

The 1" urethane foam meets the insulation specs: Initial k factor of 0.11 and a perm rating of 2."

Mobay does not manufacture complete chemical systems for urethane foam installation. Write for a list of urethane systems suppliers.

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Of all the ways America can grow, one way is by learning from others.

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You could start an irrigation program. And find that crabgrass and front lawns look a little ridiculous. When there isn't enough wheat to go around in Nepal.

You could be the outsider who helps bring a Jamaican fishing village to life, for the first time in three hundred years. And you could wonder if your country has outsiders enough. In Watts. In Detroit. In Appalachia. On its Indian reservations.

Last year, for the first time, Peace Corps alumni outnumbered Volunteers who are now out at work overseas.

By 1980, 200,000 Peace Corps alumni will be living their lives in every part of America.

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Chromattecs can help you create a whole new look. More versatile than wood or the usual metal finishes, Chromattecs blend subtly with their environment. Ember Chrome, for instance, softly reflects its surrounding colors. And unique new Matte Textured acrylics have a warmth that lends a pleasantly soft look and feel to panel and drawer surfaces. Chromattec fabrics are special, too. In a wide choice from manly tweeds to smooth textures. And in a palette of colors from richly muted earth tones to a strong purple, bright bittersweet and vibrant red. The total environment achieved with Chromattecs is one of understated elegance... one that can be tailored to your clients' individual preferences. Visit one of our showrooms soon and see how Chromattecs open new designing possibilities to you. Or, we'll send a representative to see you or mail complete information. Just write Department A, Steelcase Inc., Grand Rapids, Michigan. Los Angeles, Calif.; Canadian Steelcase Co., Ltd., Ontario.

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