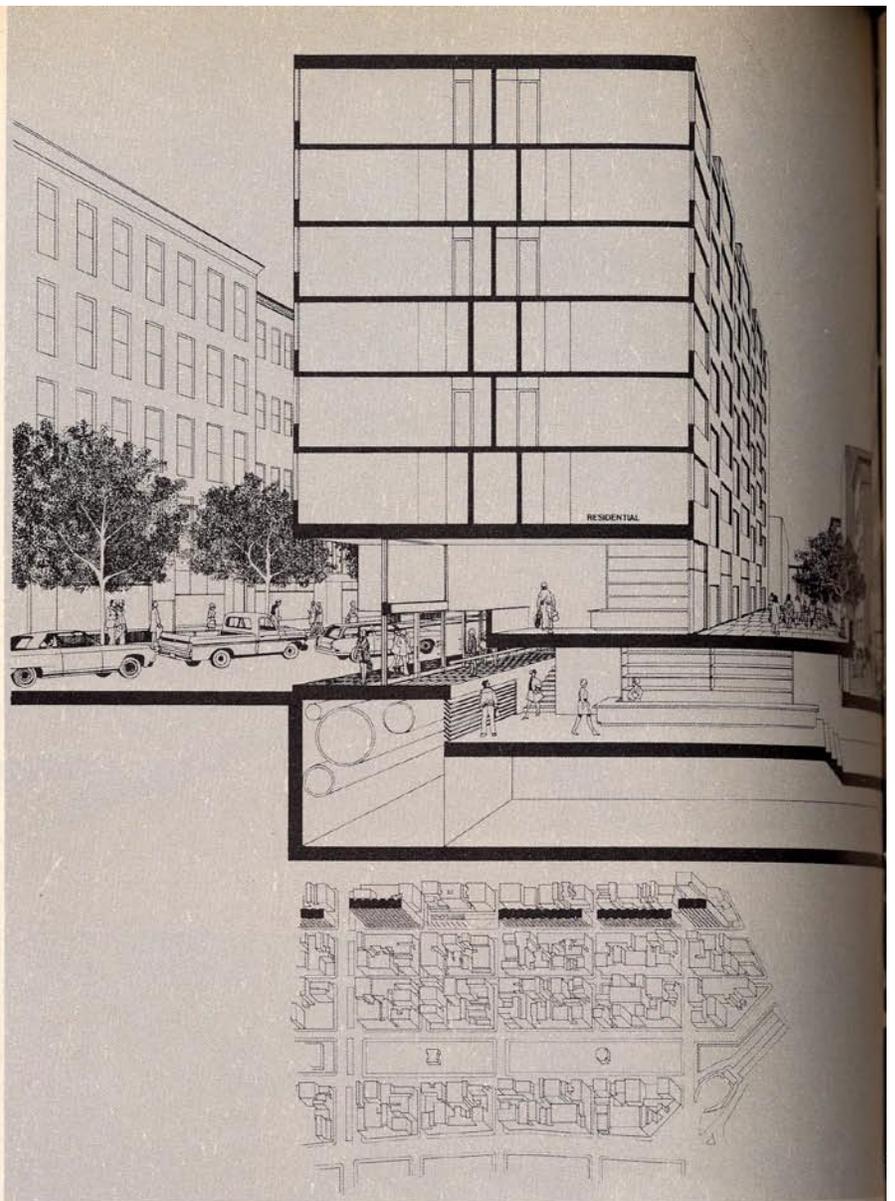


POLICY AND DESIGN FOR HOUSING

Lessons of the Urban Development Corporation 1968-1975

Journal Article Exploratory Schemes
by Michael Reynolds
© Architectural Record, April 1971

Exploratory schemes: Three-dimensional visions of how things might be done are useful because they broaden our concepts of what is possible in city life, thus broadening, in time, what we do. One of the housing schemes on the following seven pages is an architectural expression of our need to deal creatively with the existing codes and rules, to get better housing now. The other scheme is an architectural expression of how things might be done if a lot of existing rules were removed; a land-use scheme for developing whole blocks of any city into better places to work and live.



1 Urban Design Group: better housing within existing rules

■ The perspective section and the bird's-eye city plan above show a street in New York City's Lower East Side, and how that street might be redeveloped down its now-vacant center island with a special "vest pocket" housing project. This represents one possible application of a sophisticated factory-produced housing scheme created in the offices of the Urban Design Group of the New York City Planning Department.

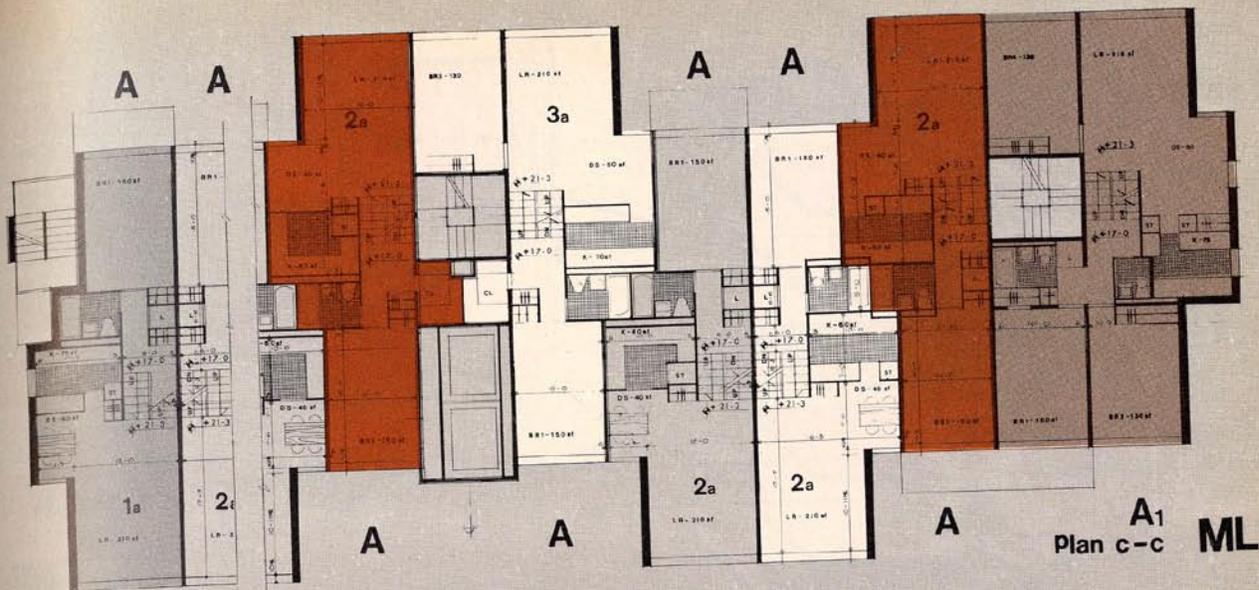
The generalized problem that the Urban Design Group is tackling by developing this housing scheme is a very real one. The conventional building types used in publically-assisted housing were usually developed ten or twenty years ago for use on large open sites—either vacant land or land cleared by urban renewal. New York, and many other cities, are running out of such large sites, and at the same time will no longer engage in massive clearance projects, because they disrupt peoples' lives. Housing programs now include a considerable number of smaller "vest

pocket" sites which are planned for small pieces of left-over land, such as the Lower East Side site, or are slipped in to replace unsound buildings without clearing the whole neighborhood.

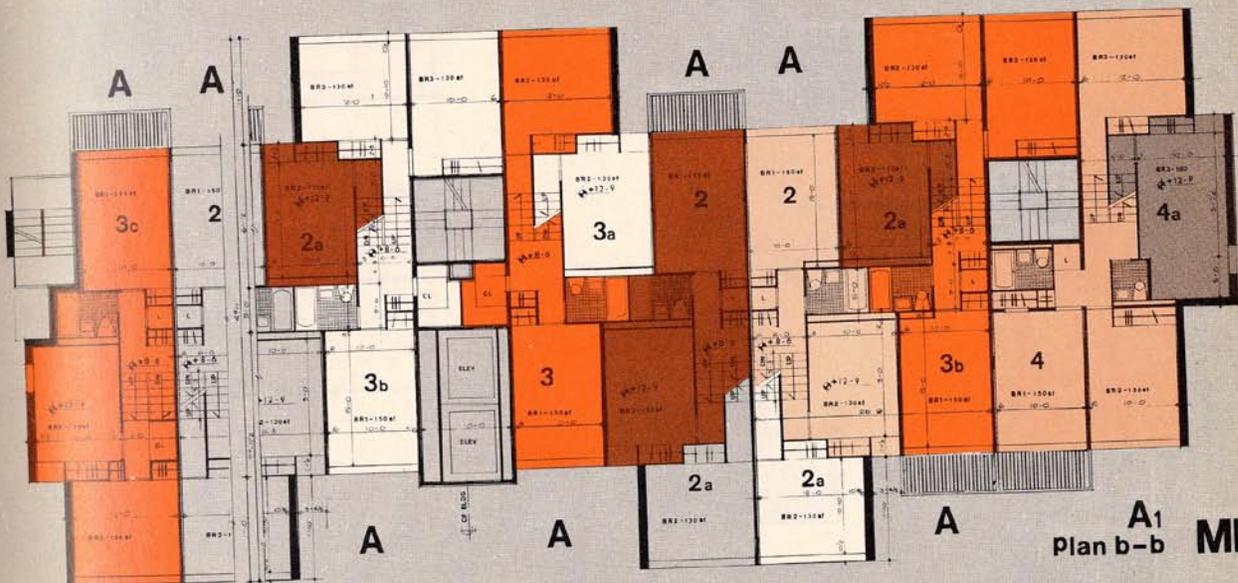
The Urban Design Group thus began a research program to study the special problems of vest pocket sites, so the city might have an alternate to conventional buildings. The scheme they were looking for had to match these criteria:

1. Must meet all state and Federal requirements for room sizes, etc., in subsidized housing programs.
2. Must meet local codes.
3. Should be adaptable to both conventional and systems construction, and use existing technology.
4. Must be able to produce a desirable urban environment.

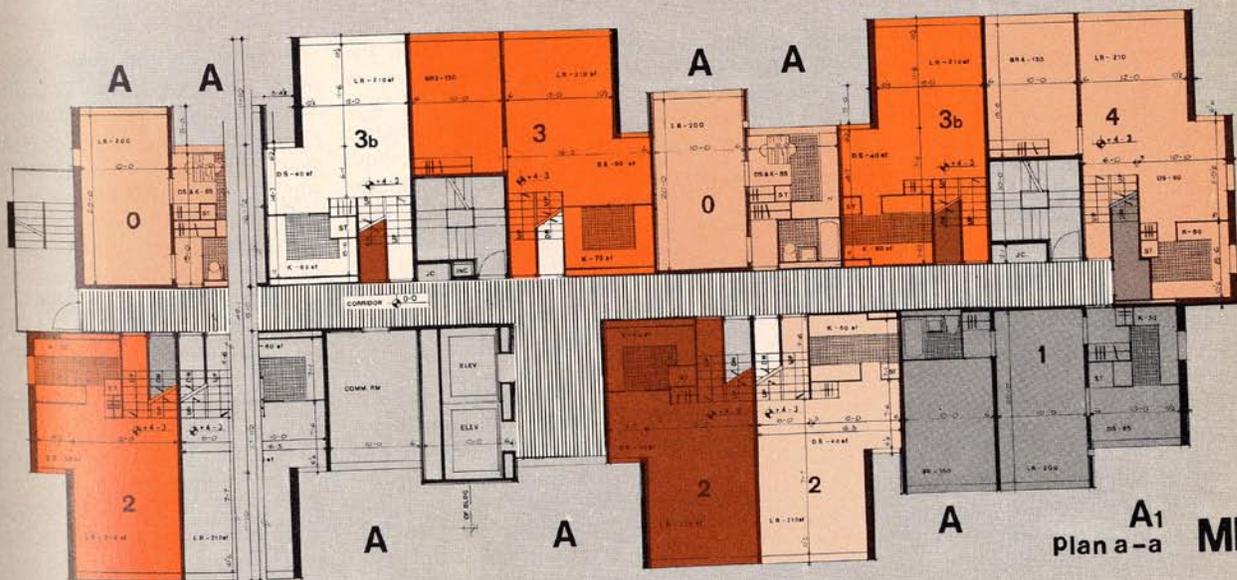
The Urban Design Group systems building on these pages is the result. It is a precast concrete scheme capable of being built using the simple and proven Tracoba sys-



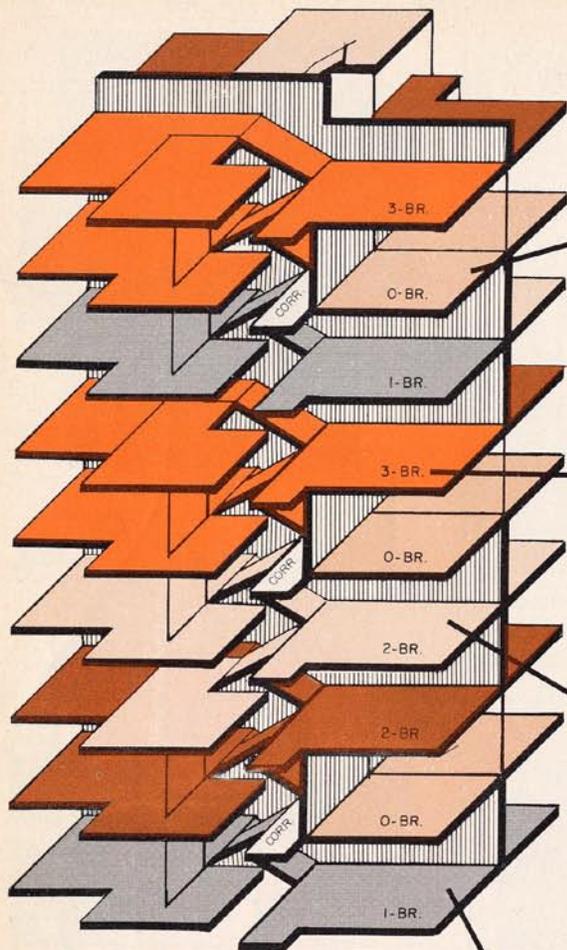
Plan c-c ML



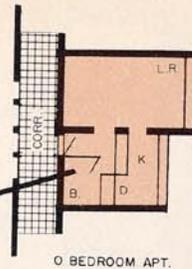
Plan b-b ML



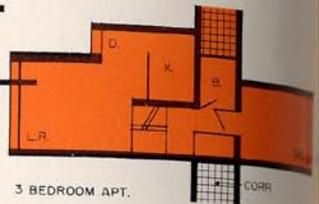
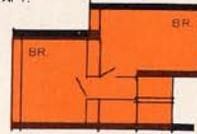
Plan a-a ML



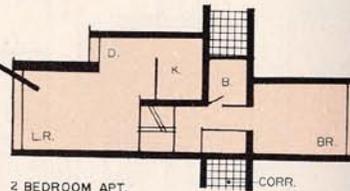
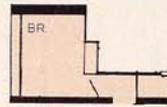
ISOMETRIC SECTION
TYPICAL A-A CLUSTER



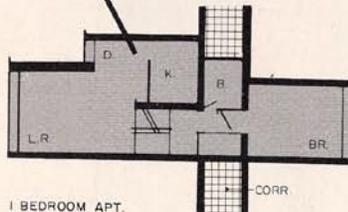
0 BEDROOM APT.



3 BEDROOM APT.



2 BEDROOM APT.



1 BEDROOM APT.

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Using three basic apartment "clusters"—the A cluster, the A2 cluster and the B cluster,—one-through six-bedroom units can be generated in nearly unlimited ratios. Below is an isometric perspective of an A cluster combined with another A cluster to create efficiency through three-bedroom apartments. Corridors occur every third floor, as shown, and the plans of various apartment types are related to their position in the isometric.

tems techniques first developed in France, and responsible for over 200,000 finished units there. The design was under the direction of architect Ajzyk Jagoda, and it carries on work which Mr. Jagoda had begun some years ago as an architect in private practice.

The idea behind the system is simple, but it generates apartments and spaces very difficult to represent graphically in two dimensions, because the floor level shifts one-half of a level (about four and one half feet) quite often; a maximum of three times within one apartment. But this level shift is the key to the design's efficiency, and it is also the key to the design's architectural and spacial excitement.

The design is created with a series of standardized floor and wall panels (the normal Tracoba system), with the addition of a minimum number of "half-height" bearing wall panels. The horizontal floor panels vary in area, but 12 feet by 20 feet could be considered most usual. Floor and

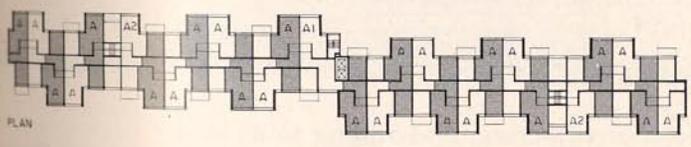
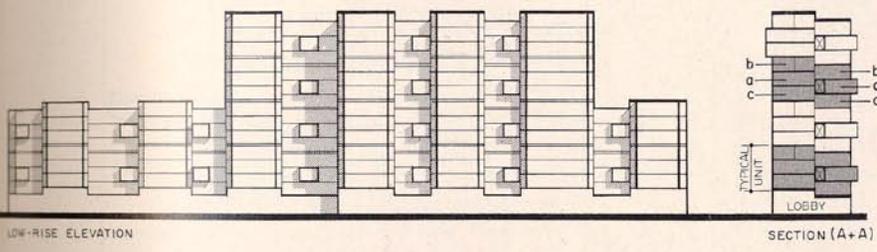
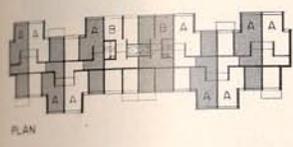
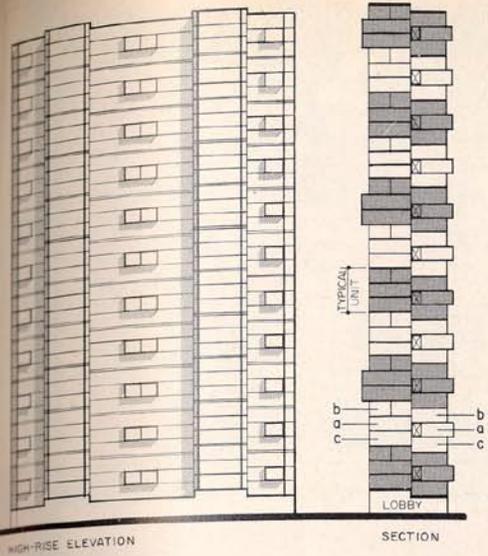
wall panels are fitted together using the patented Tracoba jointing system to create the basic shell of the apartment building.

The three plans on the previous page, and the isometric perspective above, show the configuration of apartments within the shell. The scheme can systematically generate any kind of apartment, from an efficiency to a three-bedroom-unit all on one level, to one-through six-bedroom-units on as many as three levels. Circulation corridors occur only on every third floor—one key to the scheme's high percentage of rentable square footage compared to total square footage. This is known as the skip-stop system in elevating, and John A. VanDeusen of Joseph-R. Loring & Associates, consulting engineers, has investigated the efficiency of this system for handling traffic circulation. He says the triple skip-stop arrangement of circulation floors is the most efficient scheme possible, fully utilizing the elevator's capabilities.

Professor Mario Salvatore of Colum-

bia University has been the consulting structural engineer on the Urban Design Group's system. He says there is no doubt of the scheme's adaptability to the Tracoba panel system, and of its economical production. Mr. Salvatore and Mr. Jagoda have presented the scheme to audiences of architects and developers, and have found enthusiasm for its advantages.

Of particular importance, of course, is the scheme's "fit" with the two principal minimum standards codes under which New York City housing is built; the Federal and city FHA standards for public housing, and the state Mitchell-Lama standards for housing. The individual room sizes (kitchens, bedrooms, living rooms, etc.) generated by this scheme, along with such issues as corridor widths and ceiling heights, conform in every case with these two minimum standards codes. The total structure creates about 25 per cent less gross cubic feet of building than do "normal" corridor-every-floor projects having the same number and



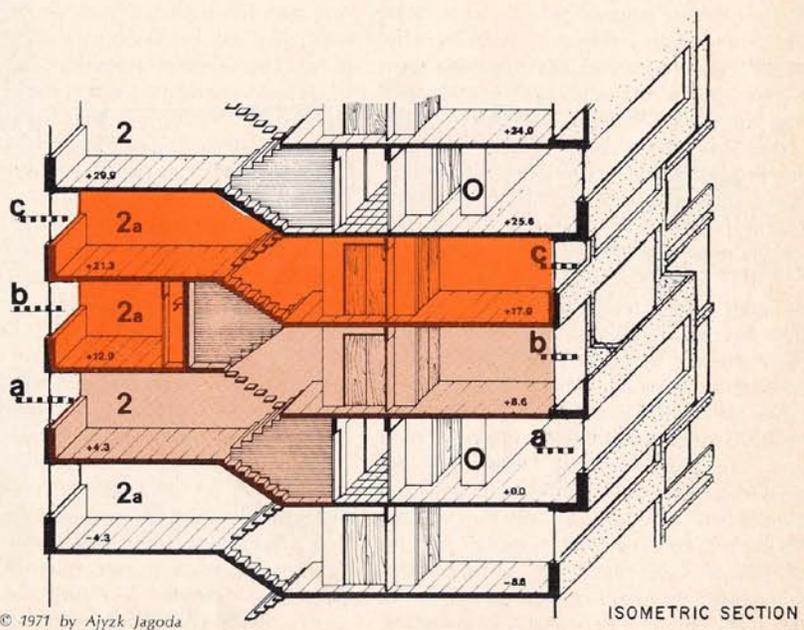
PROJECT							CONVENTIONAL			
200 S.F./R.R.							250 S.F./R.R.			
$\frac{250}{200} \times 100 = 125$ D.U.S							100 D.U.S			
APARTMENT TYPE	L.R. & D.S.	KITCHEN	1ST BR.	2ND BR.	3RD BR.	4TH BR.	TOTAL ROOM AREA	R.R.	GROSS AREA / D.U.	
									PROJECT	CONV.
0 BR.	200 85	-	-	-	-	-	285	2 1/2	500	625
1 BR	220 60	150	-	-	-	-	430	3 1/2	700	875
2 BR	250 60	150	130	-	-	-	590	4 1/2	900	1125
3 BR	270 70	150	130	130	-	-	750	5 1/2	1100	1375
4 BR	290 75	150	130	130	130	-	905	6 1/2	1300	1625

The two sets of elevations and sections at left illustrate a generalized high-rise building that might be built with this system, and a generalized low-rise building. The shaded areas of the plans marked A, A2, and B, illustrate the three basic and repetitive "clusters" out of which the buildings can be generated. The A2 clusters contain the vertical transportation, either stairs or elevators. The small a-a, b-b, and c-c plan marks on the sections refer to the plans a-a, b-b, and c-c on page 133, showing where those plans are located. The chart is a statistical comparison of a typical urban design group system apartment building with a similar conventional building.

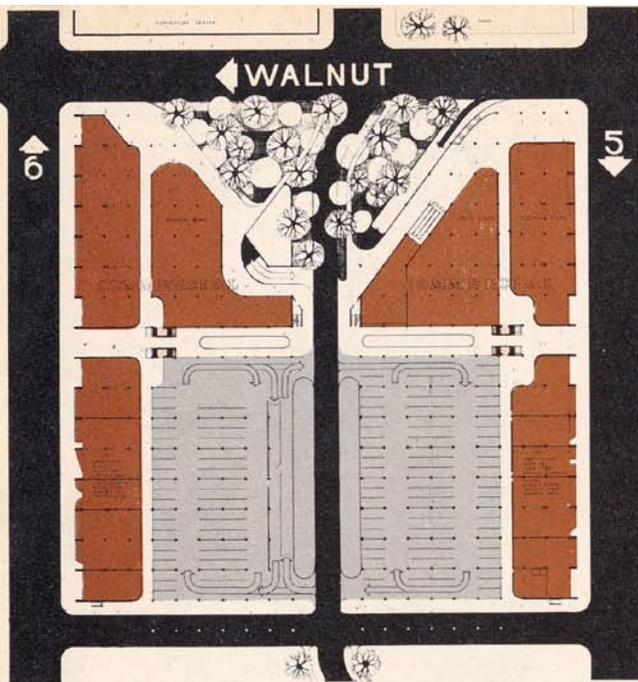
size of apartments.
Using about 11 different elements per apartment, (an element is a part or group of parts that can be conveniently handled in one crane lift) the Urban Design Group system can generate one-through six-bedroom apartments of unlimited "mix," in either high-rise or low-rise arrangements. And unlike some project housing, the apartments themselves look like they would be fun to live in, and the possible facade expressions look anything but dull.

URBAN DESIGN GROUP SYSTEMS BUILDING, The Urban Design Group of the New York City Planning Department: Jonathan Barnett, A.I.A., director of design; Ajzyk Jagoda, principal urban designer and architect. Structural consultant: Mario Salvatore; mechanical consultant: Joseph R. Loring Associates; John A. Van Deusen, transportation systems. Drawings by Martin Dorí, assistant urban designer, and Paul Wang; rendering by Roy Lordahl.

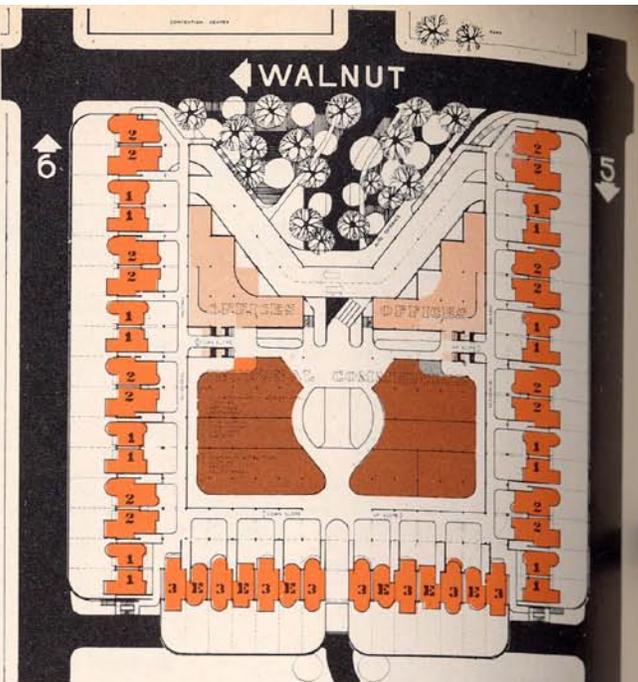
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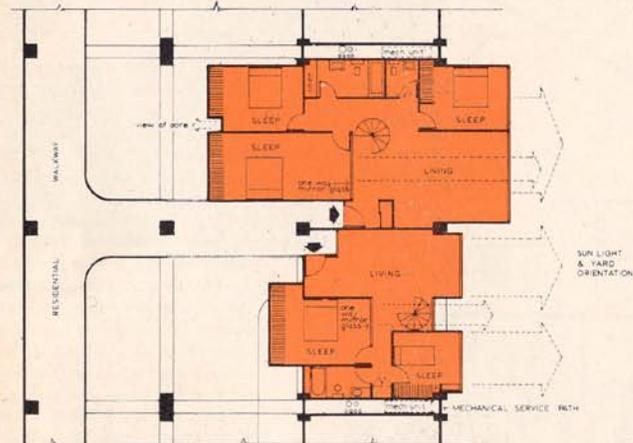
ISOMETRIC SECTION



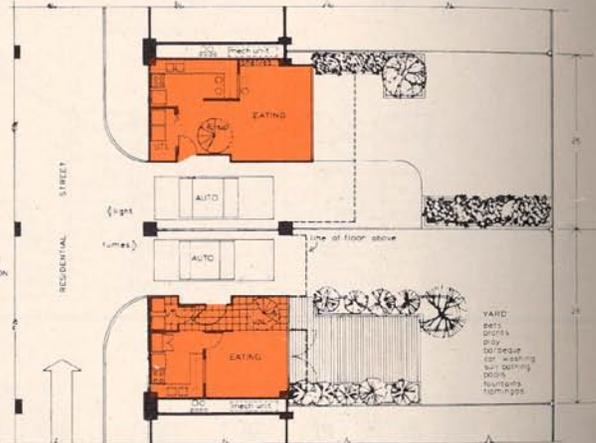
PLAN - STREET LEVEL



PLAN - C-C



UPPER LEVEL



LOWER LEVEL

2 Residential blanket scheme: rethinking the city's architecture, and adding to its land

■ The scheme shown here is a proposal for new ways to work and live in the city. Its basis is a permanent, pyramidal platform system—a "land assemblage"—established over full square blocks of our densely populated downtown cores. Or perhaps they are not so densely populated: the downtowns of some of our cities are becoming mainly parking lots, geared to the worker in suburbia.

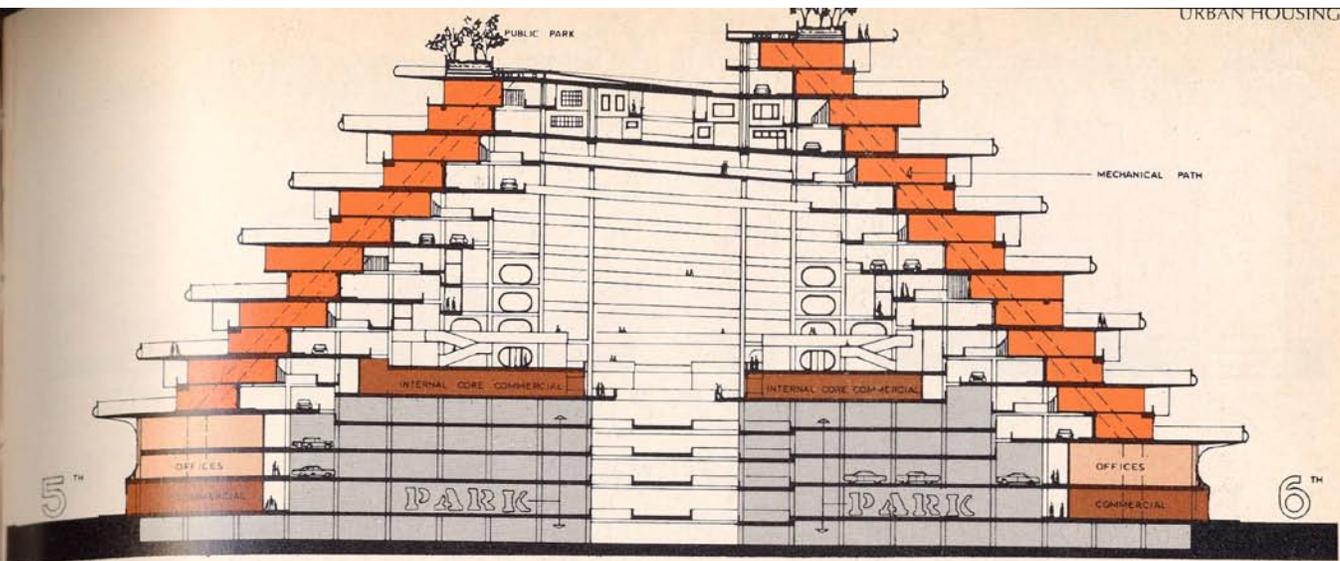
The scheme is the work of a young designer named Michael E. Reynolds, who now lives and works in Taos, New Mexico. He is trained as an architect, and he has been refining his drawings and ideas about cities for several years. His ideas here are frankly visionary; that is, they take as their goal the creation of a better way for people to live in a high-density environment, and disregard all of the existing building codes, banking systems, patterns of private ownership, and transportation techniques that restrict that vision. But at the same time, it does not override all

that man has built lately, as we could perhaps describe Paolo Soleri's arcologies as doing. This scheme resembles Soleri's work in its vision and in its goals, but not in its scope and breadth. Reynolds' land assemblage describes a way of improving existing cities, proposes that their existing rectilinear block patterns be retained, and most of all, provides a central position for the automobile. It attempts to make the United States system of individual, private transportation capsules that can go anywhere anytime, work in a more humane way.

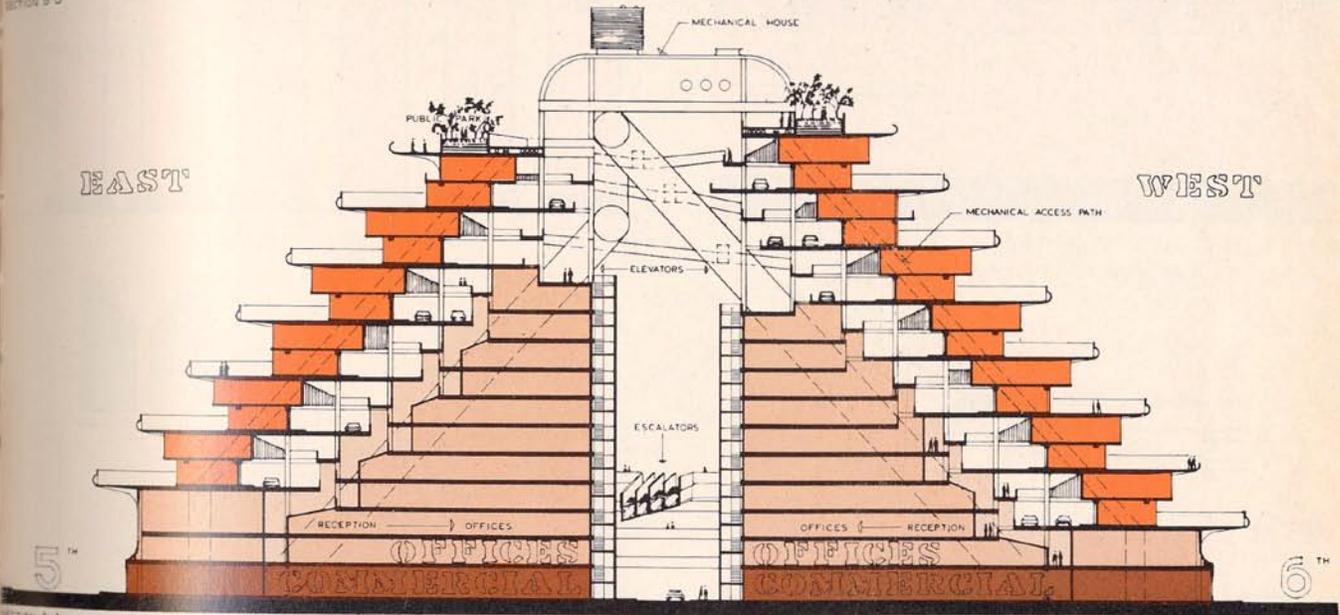
The drawings on this page describe one possible form of his residential blanket in its "land assemblage" framework, and the series of sketches on the following page illustrates the rationale he has followed. But let Mr. Reynolds speak for himself: "I am proposing a housing scheme that will provide suburban amenities such as an exterior yard, auto parking next to your door, freedom to change your living space, psychological distance from the

city, and community identity. These amenities will be within walking distance of the activities of city life such as entertainment, shopping, employment, cultural concentration and civic exchange.

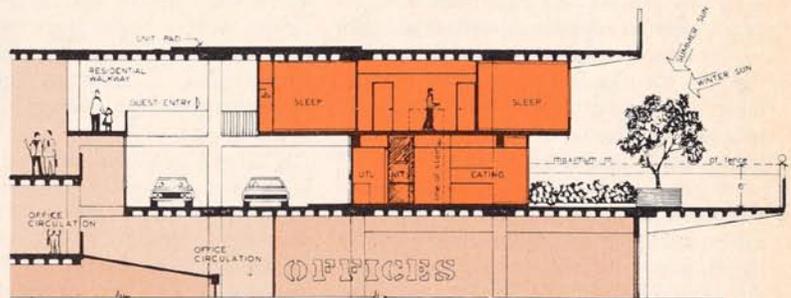
"The commercial potential of a square block of any city is too valuable to be replaced with a residential complex. At the same time, however, the commercial potential of a city core would be greatly increased if the residential complex were there to make use of it. As it is now, the existing residential areas are providing their own commercial facilities in our suburbs. These suburban cities compete with and weaken our existing city cores. As a result, our city cores are losing their strength symbolically and physically. Therefore, I am proposing a residential blanket over a commercial complex in the city core. This residential blanket would increase the usable land area by creating land areas stacked or overlapped above ground. They would be assembled in such a way that



SECTION B-B

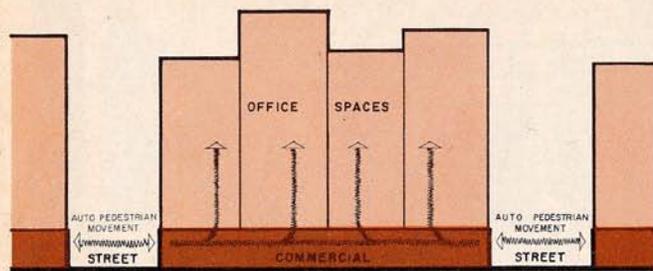


SECTION A-A

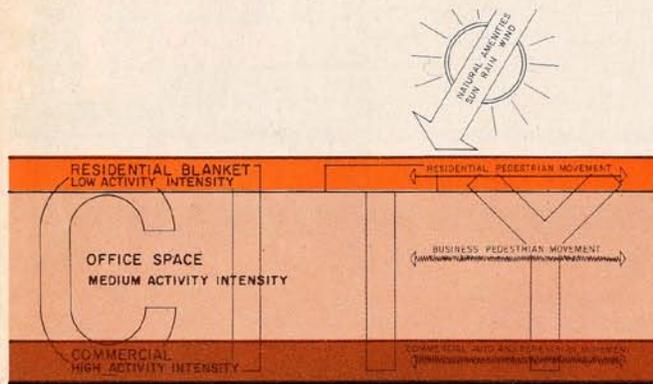


SECTION THROUGH UNIT ON FIRST ROW

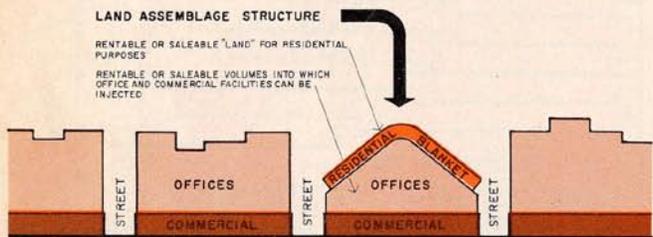
The two photos at left are shots of the model built to illustrate the land assemblage superstructure. Above is a section showing a typical residential unit, on two floors with its private garden. Automobile circulation is separate and enclosed from pedestrian circulation.



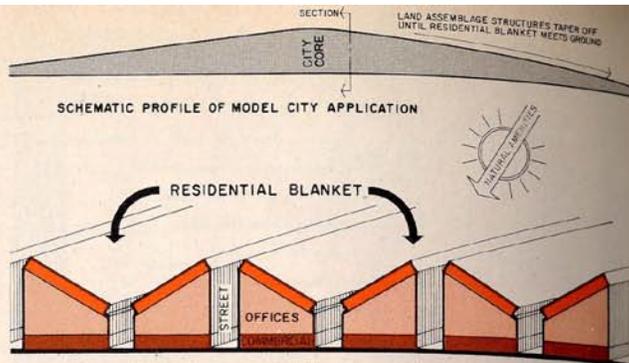
1 EXISTING CITY STRUCTURE



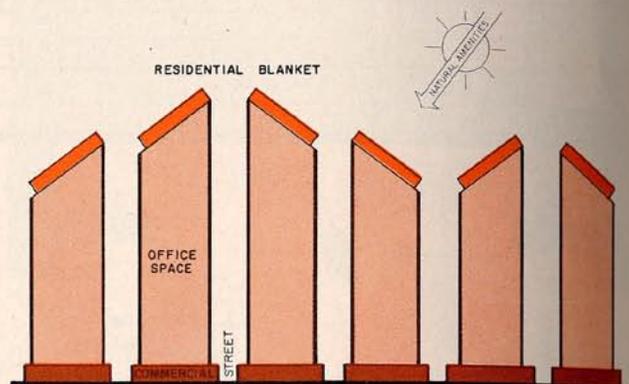
2 CITY STRUCTURE ABSTRACTION WITH APPLICATION OF RESIDENTIAL BLANKET



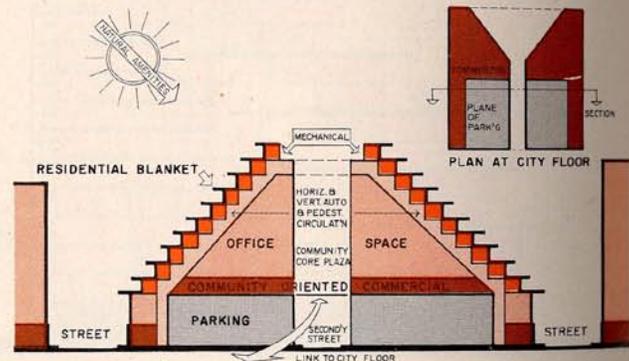
3 SINGULAR APPLICATION TO ONE CITY BLOCK



4 MODEL CITY APPLICATION



5 HIGH-RISE BLANKET



6 SINGULAR APPLICATION SCHEMATIC SECTION THROUGH CENTRAL AREA

they would still receive sunlight, rain and breezes. The structure would provide the necessary utilities and auto/pedestrian access ways that suburban developments do.

"Into this residential blanket, low-, medium- or high-income housing types of either portable or permanent status could be injected. The units could be singularly built, totally individual homes with the same freedoms of building as on a rural or suburban site. However, if the need required meeting a large-volume demand, or providing for the poor, mass-produced units could be injected. These would need to meet certain specifications but would still allow individual freedom within and without. The exterior flexibility would come about largely as a result of the 1,100 square feet of exterior 'yard' that would go with each unit.

"As the needs and times change, the original housing could be torn away and new housing erected, re-using the original structure. This structure for the residential

blanket can thus be called a *land assemblage* superstructure and would be re-used in the same way as land: It would be designed with a permanence which is not practical for housing itself today. Housing is becoming a consumer product and should be allowed to change as people and times change.

"If this scheme were used on a large-scale in several cities, the original superstructure or various forms of it could be identically repeated in each city without becoming monotonous or stereotyped. This is true because the type and character of the housing that is injected into the residential blanket would determine the final appearance of each community.

"In addition to residential sites being sold or leased individually, 'land parcels' from the residential blanket or the commercial volumes below could be sold or leased in any quantity to private developers. This concept simply increases the permanent re-usable land area available to the

public. The permanent and re-usable qualities of the land assemblage would insure its eventual increase in valuation, as the permanence of natural land insures its eventual increase in valuation.

"The value of the initial land parcel (which is determined by its location) will greatly effect the dividends reaped by the entire complex. While this housing concept is needed in cities of all sizes, it would obviously pay for itself faster in a large city where rents can be higher. The office and commercial space as well as parking are intended to bear the majority of the burden of cost return.

"If this housing unit system were to become a reality, the supporting superstructure could take on a wide variety of forms in addition to the blanketed pyramid shown here."

THE RESIDENTIAL BLANKET, an exploratory scheme for city living. Developed and drawn by Michael E. Reynolds