The new city architecture and urban renewal

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A Perspective on Planning

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Considering that cities have been in existence some eight or nine thousand years, urban planning is a relatively new field of study. While individual aspects of urban life have been under scrutiny by scholars for centuries, the city as a totality had eluded us as a subject for comprehensive analysis.

All is now changed, however. World-wide population movement toward our urban centers is reaching avalanche proportions. It is estimated that by the year 2000, some 275 million Americans will be living in our cities. This roaring cascade of new people, new problems and the complications of old problems has swept upon the local scene a new crop of "urban affairs experts" and, of course, their anti-beings, the urban affairs critics.

The combined speculations of experts and critics have evolved a new art form. Learned tomes and searing articles on our cities are being put out each day. Most of them seem to have troubled titles. Words like "death," "shame," and "necropolis" have become ominous prefixes to the fair municipal name. And the city of New York, which is built on superlatives, has become the standard for such critical self-scrutiny.

The very size and grandeur of New York seem to have a hallucinogenic effect upon those who seek to project the city's future. There is enough of New York to kindle the fires of imagination in every mind —and every mind runs its course of individual tastes, prejudices and dreams. Which New York are we planning for?

Is it the glamorous, musical comedy city in which all the women look like Doris Day and wear frilly aprons over imported Italian knits? Where everyone lives in technicolored duplexes with antiseptic children, precocious dogs, and dark-skinned servants who are wise, warm and witty, but never seem to have families, friends or reasons for being?

Others have suggested that a popular fantasy-version of Greenwich Village might be the prototype for our City of Tomorrow. Here we find a city which, as Roger Starr once described it, "is like an old Grace Moore movie." This is the place with lovely old brownstones and happy-go-lucky landlords, ancient tenements with joyous people all hanging out of the windows singing to the passing truck drivers. It is the city where teenagers say "golly" and "gee," where all decisions are made at little town hall meetings, and where butchers, bookies and existentialists all join hands and dance among the back alley garbage cans.

In somewhat jarring contrast to this celluloid reverie is the chromium image of New York that is designed in Detroit. Typical of this are the ideas explored at our World's Fairs, where we are told to expect a high-horsepowered Valhalla, with glass-covered bugs whizzing along 36-lane superhighways; helicopters whirring overhead like flies over a trash can; and moving ramps connecting structures shaped like bagels, mushrooms and Cadillac fins. Omitted somehow in this great megalopolitan mish-mash of the future is any indication of what in the world these buildings are for. Or, for that matter, what the city is for.

I have been somewhat cruel in depicting these images, not because there isn't some validity in many of these yearnings, but because they have a delusory quality that diverts us from the realities of the city today—and its real promises for tomorrow. I suspect that our civic daydreams are a symptom of impending maturity. We are growing up as a city, and we are now being seized with the same sense of awe and terror that grips the adolescent who suddenly realizes he has come of age and must take on the responsibilities of manhood. As James Morris, an observant British journalist, noted in his recent book, *Cities:* New York "is no longer the gauche nouvelle-riche of her lingering reputation. She has achieved a civilization if not as mellow, at least as close-knit and complete as the culture of the old European capitals. . . . Power weighs heavily upon her shoulders nowadays, and makes her a rather terrifying place."

The Bad Seed

The city of New York was conceived as a speculative real estate venture by the Dutch, who discovered at an early date that their raggle-taggle offspring was going to run her own life *her* way.

It is amusing to note that the first master plan for the city was prepared on April 22, 1625 in Holland, probably by the very same group of planners who would produce the Great Plan of Amsterdam in 1640. This master plan for New Amsterdam was handed over to the Dutch West India Company for implementation by an engineer with the improbable name of Cryn Fredericxsz. By the following year the plan was abandoned. From that point on, planning has been sitting in the back seat while the city careened into its future.

The matter of land economics and the topography of Manhattan island have also conspired against

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planned urban development in New York. The slim pencil-shaped island was first settled at the very tip. Expansion could take place in only one direction—"out of town." As a result, the demand for coveted center-city land sent prices soaring. By the time George Washington completed his second term of office, lots at Broadway and Maiden Lane were selling for $20 to $22 a square foot. At those prices redevelopment became a more attractive venture than new development in the hinterlands.

The aspect of economic return has dominated the building patterns of the city. Few structures were built that did not either represent a business venture or a physical expression of wealth—as in the case of the Fifth Avenue mansions and town houses which proliferated in the latter part of the 19th Century. That so many of these elegant eclectic showplaces have been razed for new structures is indicative of the ruthlessness of the market to satisfy its thirst for profit returns. Even the impregnable Vanderbilt clan, which in its heyday housed its cousins and its sisters and its aunts in 60 town houses and mansions throughout the city, has surrendered all but a few to the Tishmans, the Urises and the latter-day land barons. The city's push for front-office *lebensraum* has resulted in the postwar construction of some 75,000,000 square feet of posh new space, more than all the existing office space, old and new, in the 22 next largest cities of the country combined!

Space and Motion

This cannibalistic way of life is not the only factor which complicates planning in New York. The city's unique geographical setting plays a key role. Consider the logistics involved in transporting the 2,225,000 workers into the nine-square-mile central business district of Manhattan which is accessible only by river crossings. The highly concentrated business core dictates that mass transit move 90 percent of the rush-hour travelers into this area (a feat tantamount to evacuating the entire state of Kansas each day). And in the same period, 600,000 autos, trucks and buses find their way in and out of the area south of 60th Street.

The city's unsuspecting accommodations to the motor vehicle have resulted in serious civic consequences: carbon monoxide pollution has reached alarming proportions; civic design has been dominated by a tangle of arterial spaghetti; public ways have become eyesores as billboards, service stations and drive-ins compete for attention; and, perhaps of greatest concern, pedestrian rights to the use of the city are now considered secondary to those of the auto. Yet, despite its voracious appetite for land, whether it is moving on highways or stored in expensive garages, the motor vehicle as we know it today is an inefficient means of transportation in our city.

A Matter of Magnitude

Perhaps the most challenging of New York's characteristics in terms of planning are its size, its scope and its density. As a city grows larger there appears to be a geometric progression of complexity. New York is more than two Chicagos or four Philadelphias. Statistical comparisons can be dangerous in making plans and allocating resources. When, for example, the city decided to attempt an urban renewal project near the Bowery, it had to consider first the problem of homeless men who traditionally have frequented the flophouses and the adjoining streets in this area. This is nothing new to other cities. But the fact that New York can attract some 17,000 homeless men—a city in itself—meant that an entire bureaucracy had to be developed to deal with the problem.

We call New York a city, but it is very much a vast city-state—and a welfare state at that. In population, it is larger than any of the Scandinavian nations (whose cities, our critics tell us, are much ahead of us in planning) and larger than 65 percent of all the sovereign nations of the world. Its budgetary expenditures each year are greater than India's or, for that matter, of 72 percent of all the countries on earth.

Bigness is not a naked phenomenon in the city. We are concerned with the interrelationships among great numbers of people, places and things all in close proximity. When combined, they produce a whole much greater than its many parts. The genius of the city is the ferment created by these interactions, which make New York the pacesetter in ideas and tastes, the financial and commercial capital, the center for arts and culture and communication, and the spawning ground for new industries.

People and Power

The "muchness" of New York is exemplified by its population mix. It is a city of minorities, any group of which makes up a respectable city of its own. The

heterogeneity of New York is as much a part of its heritage as its laissez-faire development attitudes. Back in 1643, a Jesuit missionary who visited New Amsterdam noted that "there were men of eighteen different languages. . . ."

The diversity of the city's population today is not only measured in ethnic affiliation, but in ideology as well. After years of sitting through public hearings at City Hall, I can safely conclude that if there is anybody anywhere against anything, he lives in New York. Citizen protest has become a well-mastered art. The organizational sophistication of New Yorkers has found its way into every neighborhood, every civic group and every special-purpose organization. If the skills are missing, there are public-spirited Hessians available to do battle.

Special community alliances on specific issues are *ad hoc*, in most part, and defensive in nature. For long-term, programmatic community efforts we must turn to the so-called "do-good" organizations, whose pressures are as persistent, if not as heated, as their single-issue-oriented counterparts. New York has any number of civic-minded organizations which have played a behind-the-scenes role in shaping the city's future. Ironically, most of these groups have little representational strength — often their active membership roster is small and they must rely on powerful letterheads and a few wealthy or articulate spokesmen to sustain their influence.

At the other end of the civic spectrum are the militant, taxpayer-type organizations whose concerns are focused usually upon a specific geographic area. These are conservatively bent groups which temper the thrusts of the do-gooders. Often, the leadership of these groups will claim to represent 300,000 Queens homeowners, or all of Brooklyn's taxpayers, or every American Indian in New York.

Another element in the municipal pressure cooker is the city's vast institutional complex. Approximately one third of all the city's developed properties are tax-exempt, a somewhat jarring statistic which points up the huge holdings of our non-profit institutions. Despite their non-taxpaying status, these forces play a powerful role in the city, since many of them (hospitals, universities, religious institutions) have a continuing appetite for physical expansion.

The clash between community interests and institutional interests often cannot be resolved to the mutual satisfaction of both. The friction between Columbia University and its Morningside Heights neighbors and the problems of New York University

in its volatile Greenwich Village setting are classic examples of this dilemma. In each case the growth needs of the university are being expressed by the taking of more land—a problem which probably requires a new look at the "urban campus" and its community implications.

Economic pressure groups range in character from the powerful, wealthy and well-organized union groups to titular and ineffectual local chambers of commerce. Business is not well organized in New York. Some few exceptions, such as the builders' and real-estate groups or the Downtown Lower Manhattan Association, have had an active role in shaping the destiny of the city.

The difficulties of industrial and business organization in New York stem from the varieties of businesses and their comparatively small size. New York is the largest manufacturing center in the world, but it represents a sprawling mosaic of small industries, most of which hire less than 30 employees. On the other hand, the unions are clearly visible to the public and can express their interest not so much in vote-getting ability as in their power to strike and paralyze all or part of the city. It has become one of the paradoxes of New York that a good number of our unions are looked upon as the right wing in our spectrum of pressure groups.

Perhaps the newest and most publicized source of pressure comes from the ghettoes of the city. The "new voice"—strengthened by governmental programs and a variety of self-help organizations—has made clear its desire to participate in the city's decision-making process. It is a voice crying out against poverty, bad housing, vice, addiction, crime and all the outrages that society deals its poor. It is a voice that will grow louder, not weaker, if we refuse to answer.

Despite the array of pressures—and this is hardly a complete listing—the city has no such thing as a clearly defined "power structure." Whom do we talk to in New York? Can we find the faceless syndicates that operate giant businesses or own the land in our city? It was interesting to note that part of the dowry of Princess Irene of the Netherlands was an impressive chunk of Downtown Manhattan real estate—another tribute to the long-range planning abilities of the Dutch.

It would appear that the best we can hope for in New York is control of a small percentage of the outstanding stock in our city's future. Like some major corporation, if we can consolidate even a frac-

tion of the stockholders, we can get something done.

Change is an eternal quality of New York. Since its inception the city has been buffeted by waves of new people, new functions and new outlooks. It is in the nature of the change and in our ability to deal with it that we begin to find new problems.

The ease with which populations can shift in our modern era was pointed up dramatically in the last census enumerations, when we learned that two out of every five persons over the age of five lived in a different house in 1960 than in 1955. This mobility plays havoc with statistics and should prove a caution against allegiance to "facts." For example, the same 1960 census showed a slight drop in New York's population over 1950. What this "net" figure does not tell us is that more than two million people moved in and out of the city during these ten years. We saw a huge emigration of middle-income white families almost matched by swelling numbers of Negroes and Puerto Ricans resulting from immigration and natural increases among these groups. In assessing the impact of this movement upon the city, we must not be snared in "statistical nets." We do not feed, clothe, hospitalize or transport "net people." It is the *actual* people at any given time living in New York who require city services.

There is another aspect of movement which is perhaps more significant than physical flow of people—the struggle for "upward mobility." The polarity of the large city finds affluence and poverty coexisting in such an order of magnitude as to sharpen the tensions among the "have-nots." The poor in New York may have statistically higher incomes than the poor in Appalachia, but the poverty gap is greater in the city. While most of the newer immigrating families can be physically mobile, once enmeshed in the life of the city they find they are both socially and economically paralyzed.

Today New York must find the means to aid one out of every five households in the city to keep pace with our society's surging requirements for a decent living standard. The alternative is to accept the prospect of an ever-increasing ghettoization of large segments of the population who, in turn, will be almost totally incapable of contributing to the growth and betterment of society.

Changes in the nation's technology have had a profound effect upon our city. Automation has created a radical change in the job market. The nature of production has shifted from tall buildings to horizontal layouts, creating a demand for cheap land that New York finds hard to satisfy. A study by the Regional Plan Association a few years ago showed that 90 percent of the new plants constructed in the New York Metropolitan region were located outside of the city. As a result, we have experienced a loss of some 100,000 manufacturing jobs. Fortunately, the vitality of the city is such that we have more than overcome this deficit with new jobs, mostly in the areas of governmental and general services.

Though the city's job market continues to grow, the nature of these jobs is often mismatched with the skills (or lack of them) of the resident labor force. The educational and training prospect is not brightended by the facts that one out of every ten adult New Yorkers is functionally illiterate, more than two million adults never got as far as high school, and the likelihood that 30 percent of the young people in school today will be high school dropouts.

The technological changes that have stirred our national pride have had little effect in improving the quality of urban life. We have developed the capability to go to the moon but we don't know how to get rid of our garbage. We have automated whole industries, but we can't lick the problem of air pollution or develop a safe, versatile, efficient and inexpensive means of urban transportation. In short, we have not yet developed the technology of the city.

The most visible aspect of change in New York is in physical plant. While the city has continually demonstrated remarkable regenerative powers, large portions of the older inner core show the ravages of time and neglect. The oldest and worst housing in the city is occupied by those families least able to compete for better housing in the open market—the growing numbers of the elderly, minority groups and large-sized low-income families. With more than a quarter of a million housing units in advancing stages of decay, it is obvious that anything short of a massively aided city-wide effort will be impotent. The matter is further complicated by the fact that the city's aging industrial loft space, which is most in need of replacement, too often is occupied by firms which supply jobs to the same lower-income segment.

In the face of these tides of change, we must consider the increasingly frustrating role of municipal government. The traditional corporate boundaries of our city have no rational relationship to the patterns of urban growth. The city remains the focal point of our modern society, but because of accidents of political jurisdiction, it has less and less control over its urban "overspill" into the surrounding region. The

outward movement of people and jobs from the urban core has extended the city's sphere of influence, while sapping the source of its economic strength. Clearly there is need for greater home rule—a matter which undoubtedly will be pressed at the forthcoming Constitutional Convention in Albany. At the same time, it is equally clear that the manifestations of urban change are beyond the ability of any municipality to handle alone.

The changing city is perhaps best typified by the public's attitude toward the urban environment. Once the city was a place in which everyone marked time until he could get out. It was a stopping-off place, a place to be used, and abused, a "nice place to visit but not to live." We saw generation after generation reared in the city, but with no proprietary interest in its well-being. City Hall was a symbol of the faceless monarch who ran New York—it was never "our" parks, "our" museums, or "our" schools; it belonged to "the city."

There is more than a spark of urban culture kindling now in New York. There is a recognition—or is it resignation?—that the city is here to stay and that most of us are part of it. The New Yorker is no longer satisfied with subsistence living. He expects everything from comprehensive health and welfare services to happenings in the parks. He wants cultural and artistic outlets, open space and green space, and he wants better design to tame the hostile urban environment. And he has asked "the city"—overwhelmed as it is by the combined forces of change—to make this new level of life possible.

The Outlook for Tomorrow

It has become apparent that planning, in its traditional sense, has not been terribly successful in the cities of this country—and especially in New York. Neither the garden cities of Ebenezer Howard's England, nor the planned development of the highly socialized Scandinavian countries are easily adaptable to the erratic social, political and economic climate of America.

In this country, planning has tended to become synonymous with Federally aided renewal actions and other demonstrations of physical housecleaning. Those cities which have been able to achieve significant physical changes are thus the products of "good planning," regardless of whether the changes bear any relation to social problems, economic needs, or many of the other human requisites which good planning must serve.

In New York if we are to use the yardstick of physical change used in other areas, we too can make claim to "good planning." The City's public housing, aided housing and public improvement programs in the past two decades are in many ways remarkable achievements. We have built enough public housing to shelter the entire population of San Francisco. We have built more than 200 public schools in ten years, and we have built billions of dollars worth of other public improvements within the same span of time. As Edward Logue noted in his recent report submitted to Mayor Lindsay, the achievements in New York would probably have solved the problems of most other cities.

However, for better or for worse, in this city the daily press, the public and our officials all look upon New York as they would the Augean stables. What remains to be done is our measure of achievement—and that can be disheartening at times. Nevertheless, "looking ahead" is the official job of the City Planning Commission.

The seven member Commission and its Department of City Planning—which is the City's technical planning arm—are afforded broad powers under the City Charter in mapping, zoning, master-plan development, capital budgeting, and site and project approvals. As a review body, the Commission considers proposals in all the aforementioned areas. It holds public hearings and reports its findings to the Board of Estimate for final action.

Planning is done at many levels in the City. The Commission is responsible for formulating the broad planning policies from which specific projects emerge. These projects may be proposed by any number of public, quasi-public or private sponsors. As a case in point, the Commission in 1964 put forward a comprehensive plan for port development. On the basis of this guide, specific plans are now being formulated by the Port Authority for a superliner terminal on Manhattan's West Side; by the Department of Marine and Aviation for container ship piers in Brooklyn and Staten Island; and by the Planning Commission, itself, in the development of the Lower Manhattan waterfront.

This approach departs from past efforts of the Commission to develop "master plans" which inevitably proved to be too rigid or too circumscribed to guide future development adequately. Often these plans dealt with only physical design considerations, rather than assessing the important trinity for sound planning: fiscal resources, land resources, and the energies to achieve results.

During the past few years, the City Planning Commission has been working intensively, first to conceptualize a role for planning that *would* work in this city, next to develop a work program to fit this approach, and lastly to get the wheels turning to develop real products that could be translated into positive actions. Today the Commission staff is doing the analytical work which will result in the first comprehensive plan for the city of New York. Chairman Donald Elliott has underscored the commitment first made by former Chairman William F. R. Ballard that the plan will be ready by the end of 1967.

Unlike the first master plan for New Amsterdam—and there has been little real progress in this field since—the comprehensive plan for New York will not attempt to lay out every structure and every roadway in the city. Library shelves are crammed with musty master plans that were technically sound, detailed to perfection, and out of date before they were completed. Rather, we conceive of the comprehensive plan as a part of a continuing sophisticated work process which can produce the information, analytical capability and interrelated planning policies from which an overall strategy of city development can be made.

Perhaps the key word in the new planning approach is "strategy." It is the ingredient that enables a course of action to be launched which has a clear set of objectives but which is adaptable to continuing changes, sensitive to political and economic realities, and to shifts in taste, demand and need. In this context the comprehensive plan is a set of broadly based planning policies which would represent the current official expression of overall development strategy. It will be based on the vast fund of information gathered by the staff and closely coordinated with the ongoing work of other agencies. One segment of the plan will be the master plan—or development plan—representing the program of specific improvements and developments recommended over a given period of time. It will be reviewed periodically and subjected to public discussion and hearings.

The success of this planning hinges upon the kind of commitment to a planned approach to government that has already been declared by Mayor Lindsay. With a centrally located fiscal division and planning agency, the city can expect a truly comprehensive approach to its programs and improvements.

Thus provided with a broad policy and programmatic basis for development, the public and private sectors of the city can develop specific projects that are realistically linked to common goals and purposes for the improvement of the city. This will call for greater planning capabilities in the operational agencies and the proposed new city administrations, and in the development of local areas. Thus we will achieve an efflorescence of planning development throughout the city, while at the same time strengthening the central planning function.

What kind of city will emerge from this approach? A city in which people will be afforded maximum opportunities to work, to learn and to enjoy the fruits of their labors under the best possible conditions. A city with adequate water and cleaner air.

We will see rational land development on the city's wasting waterfront areas and in the vacant land areas of Staten Island.

We can expect an integrated transportation network clearly related to the economic well-being of the city. Innovative approaches to moving people in and around the central business districts of Manhattan and other major business cores will be developed.

We will see planning for local areas carried out with full citizen participation—with knowledge that resources are available to implement the plans.

We will see neighborhoods designed to meet local needs for health, recreational, cultural and educational facilities.

We will see the systematic improvement of our housing so that every resident will enjoy a decent, safe home at a rent within his means.

We will see planning for economic development that is related to planning for the training of our labor force.

We will discover new techniques, new forms, new cityscapes to make for an exhilarating, handsome and wholesome urban environment.

It is a measure of consolation that this new approach to planning is being received with enthusiasm in many circles. One of our esteemed colleagues, Robert M. Mitchell, Chairman of the Department of City Planning of the University of Pennsylvania, wrote recently:

"It seems to me that New York is on the verge of setting up for the first time . . . a new planning system. . . . In this kind of planning there are no fiscal, social, or physical problems. There are, instead, problems that have social, fiscal and physical aspects."
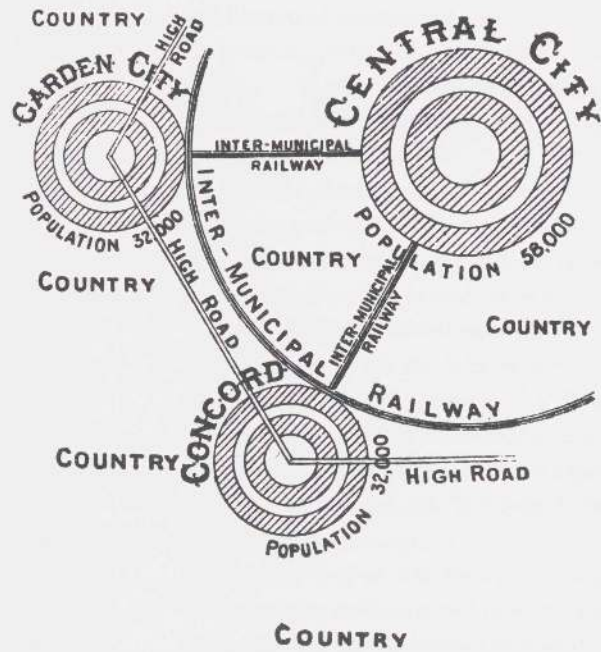
Needless to say we are buoyed by Professor Mitchell's comments. However, we are not apt to be engaged in any self-delusion or overselling of the planning process. We learn quickly that we are not omniscient. Planning for the city of New York is a humbling pursuit.

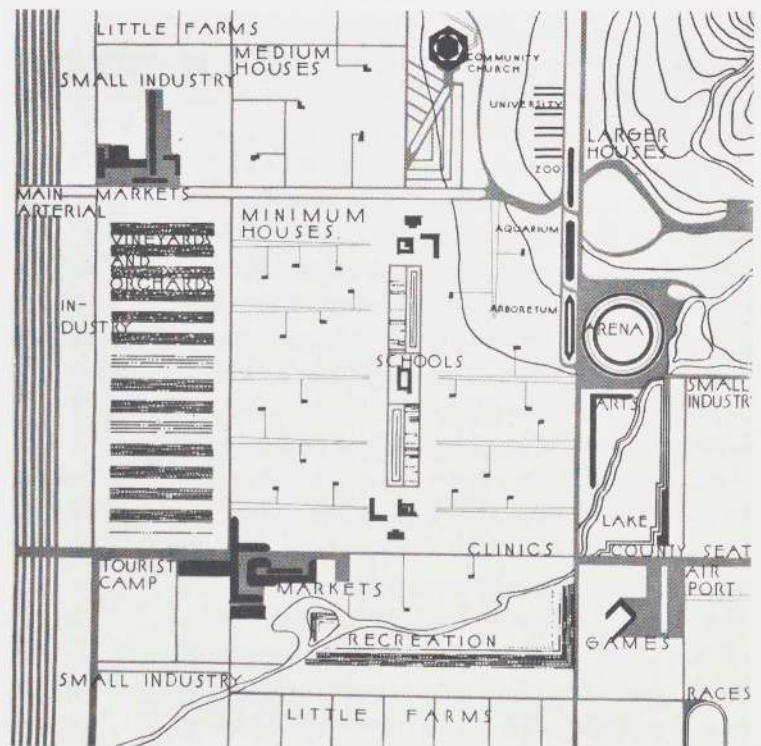*Ebenezer Howard: proposal for clustered
Garden Cities, 1898*

*Frank Lloyd Wright: 1940 version of his project
for Broadacre City, 1934-58*

New Towns, New Cities

Elizabeth Kassler

The American Tradition: Anticentricity

Americans have never had much confidence in city pavements, city crowds, city ways, city slickers. Since industrial cities were necessary to the economy, we built them, but with left hands and half a heart. Jefferson spoke for many of his compatriots when he condemned great cities as "pestilential to the morals, the health and liberties of men."

Thirty or forty years ago, just as we were becoming a nation more urban than rural, the means of escape from cities became apparent. Electric power, telephones, radios, trucks, and automobiles with their precious gift of private mobility—these were agents of dispersal far more effective than the old rail and trolley lines. Decentralization became the word of the day, synonymous with progress, and the stage was set for mass achievement—come the return of prosperity —of the American dream of living in one's own house proud and free on its own ground. No orderly retreat was contemplated, for planning was considered a threat to free enterprise and the American way of life.

There were few to quarrel with the future. Architects tended to concentrate on individual buildings, planners on traffic and population projections, conservationists on wilderness preserves; the attention of behavioral scientists was elsewhere; and the two native geniuses of environmental design, Frank Lloyd Wright and Buckminster Fuller, were passionate non-centrists.

Child of the prairies, Jeffersonian democrat and amateur of swift motor cars, Wright was product and prophet of the American scene. "To look at the cross-section of any plan of a big city," he wrote, "is to look at something like the section of a fibrous tumor."

Equating urban life with "mobocracy," ownership and cultivation of land with human individuality and goodness, Wright believed that "spaciousness is the great modern opportunity." Spacious was the project for Broadacre City that he presented in 1934 and worked over lovingly until his death in 1958. Each house has at least an acre of ground. Scattered among these part-time and full-time farms, and isolated in greenery and parking lots, are facilities so dispersed that local movement would necessarily be by automobile with a special trip for each objective. Physical focus and social community are deliberately avoided.

Buckminster Fuller, technologist rather than architect, questions all permanent settlements. "Why speak of settlements?" he asks. "Man is not built like a tree." Since 1927 Fuller has aimed at mass production of light, environment-controlled structures designed for air-lift to any part of the globe, for in universal mobility he sees the key to human freedom, world shelter, and development of World Man, brother to all and everywhere at home.

Anti-city, inevitable, arrived with postwar prosperity. Middle-class Americans, graced with cars if not with World Manhood or agrarian philosophy, deserted the old cities for random dream houses on the fringe. With them went a scattering of jobs and facilities, all loosely linked with each other and the old centers by a proliferation of highways and automobiles. But those urban fringes recede rapidly, for our population is doubling every fifty years and three quarters of the expanding populace is expected to live in metropolitan areas by 1980, mostly outside the old centers. If the present insistence on large residential lots continues, the built-up area of the New York region, for one example, will double in a twenty-year off-Broadway "happening." Millions of origins, millions of destinations, millions of auto trips, while real town, real country, real freedom of choice will all be sacrificed. The New York Regional Plan Association warning applies to new urban growth all over the nation: "By spreading and scattering rather than concentrating jobs, goods, services and homes, we fail to build communities, and we have poorer access to and so less choice of jobs, friends, recreation, goods, services, types of housing and modes of travel."

If some effort at reintegration is indicated, can we learn from European experience?

The New Towns: Subcentricity

Northern Europe has little good extra land, still relatively few cars, and a long tradition of city living and public responsibility for city development. Rather than sit back to congestion and sprawl, a few countries have tried to *do* something about the universal postwar problem of aggravated urban growth. "New Towns" are where the action has been.

The father of New Town thinking is Ebenezer Howard. Against further overcrowding of Victorian England's grim black cities, he proposed in 1898 that the expanding urban population decentralize into new industrial Garden Cities that would offer "all the advantages of the most active and energetic town life with all the beauty and delight of the country." Each community would be permanently limited in population (he suggested 30,000), and permanently limited
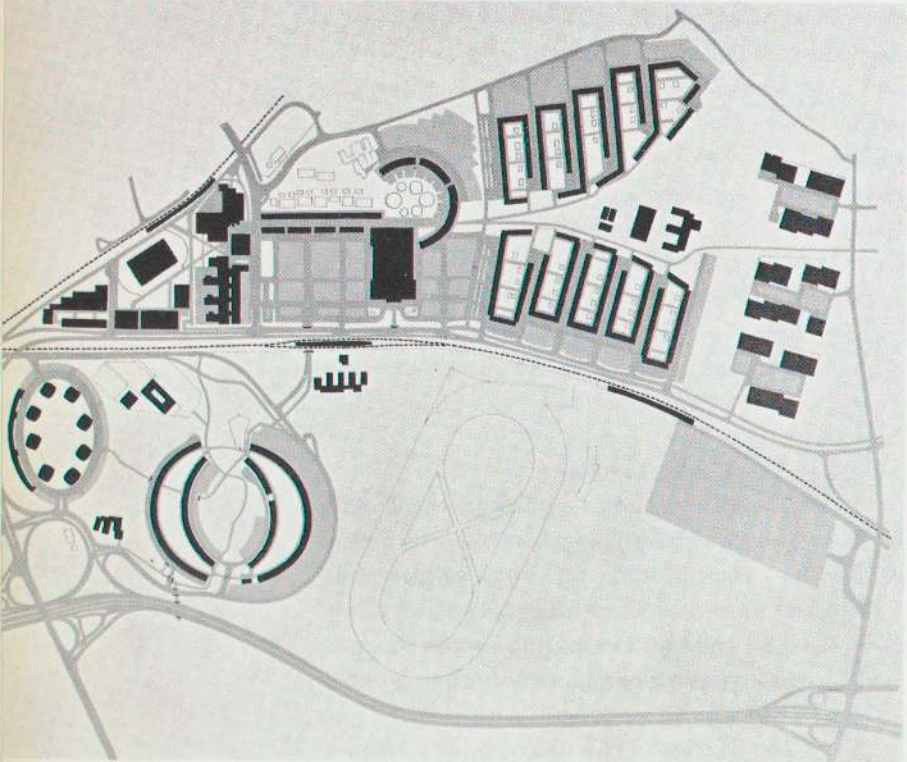
Täby, regional center of suburban Stockholm, will serve 120,000 and house 18,000 in HSB-sponsored apartments disposed in a 17-story semi-circular slab adjacent to shopping arcades and civic center; two groups of 3-story buildings; an oval group of 15-story towers; almost 1600 flats in two facing high-rise arcs separated by one of two facing low-rise arcs (illustrated). Paths and roads are completely separate.

in size by a broad farmbelt. There would be inner parks, but the plan would be compact (his recommendation was 30 persons to the gross acre, 90 or 95 to the residential acre) for easy walking to all parts of town and to the rural periphery. Land would be municipally owned for common benefit from increase in value, but Howard's emphasis was always on free choice, free enterprise, for in the Garden City, he wrote, "it is not the area of rights which is contracted, but the area of choice which is enlarged."

Each Garden City would provide full employment and services, but with *no attempt at parochial containment.* On the contrary, Howard wanted the towns grouped in clusters, separated by their farmbelts and interconnected by rapid transit to form a great city— prototype of the multi-nuclear "regional city" unsuccessfully advocated here from the twenties by such decentrist-planners as Lewis Mumford, Clarence Stein and Henry Wright.

A country-club subdivision tied to a shopping center is not a New Town. What the term does mean is a bringing together, in open country, of homes and a wide choice of workplaces, with enough self-sufficiency to assure a varied local life and a lively focus to a cross-section population of at least 15,000 people, preferably more, but limited in ultimate size. Unnecessary transportation is discouraged by compact, pedestrian-oriented planning, but the right to mobility —physical mobility, job mobility, social mobility—is affirmed.

None illustrated here meets all the requirements. Britain's official New Towns, result of the New Towns Act of 1946, are theoretically the purest, but suffer from insularity and from a present preponderance of young factory workers and their children; Cumbernauld, however, is so attractive that it will surely draw a broad range of enterprise and residents.

Reston, Virginia, lacks a cross-section population because it offers no low-rent housing; while Finland's Täby is primarily a dormitory suburb and regional shopping center. Tapiola, though housing many commuters, has such diverse population and opportunities that it is a convincing New Town; and even Howard would approve its conception as one of several interconnected, greenbelt-separated towns and cities planned to absorb Helsinki's future growth.

"Create environment, not housing," says Heikki von Hertzen, Tapiola's philoprogenitor and planning director. "Start from man. That's the only thing that's important—the individuality of man and the nearness

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of nature. . . ." Most of these town builders went out
of their way to find sites with character (a practice
encouraged by scarcity of good level farmland), to
accentuate that character through their building, and
to exploit it for multi-level traffic and building-access
as well as for views both in and out. Tapiola inten-
tionally sacrifices urbanity to interwoven greenery;
Reston, so far with more spacious internal open
spaces and more tightly clustered buildings, may
achieve both urbanity and continuity of landscape.
Täby's rough terrain may finally dominate the huge,
curiously isolated apartment groups, but only the
shopping area will offer much sense of human scale
and community. Cumbernauld's hard compact urban
landscape, unified by its hill, is precisely and glori-
ously town; the moors that lap its base are real
country.

After New Towns: Indeterminism?

The European scene is changing. Mounting popula-
tion pressures demand bolder solutions than small,
neatly finite subcenters.

Consider Britain. When it became obvious that the
fourteen New Towns started before 1951 would ab-
sorb far too few people, their target populations were
raised (very un-Howard) from 45,000 to 80,000 and
more, and "prairie planning" tightened into the low-
rise, high-density housing of Cumbernauld and the
new sections of Harlow. Now the Government pre-
dicts an increase of 3,500,000 people in Southeast
England by 1981 and calls for more aggressive de-
centralization: no more easily-swallowed satellite
towns just beyond London's greenbelt, but major new
regional cities of a quarter- or half-million people,
located well outside the London orbit.

Under construction in central Scotland, Livingston
is the first New Town conceived in regional terms. Its
own hundred thousand people will combine with
other growing areas to form a regional city of a quar-
ter million. Its second extraordinary feature is a
linear plan. The object of this banded plan is not end-
less expansion, but flexibility for changing needs and
ideas during the fifteen or twenty years of the town's
growth from east to west.

The plausibility of linear development has been a
recurrent question ever since Arturo Soria y Mata
wrote in 1882 that the ideal city would be "a single
street unit 500 meters broad, extending if necessary
from Cadiz to St. Petersburg, from Peking to Brus-
sels." Soria's Ciudad Lineal never reached St. Peters-

*Tapiola Garden City, 6 miles from Helsinki, Finland.
Developed since 1953 by the Finnish Housing Associa-
tion, a private non-profit group, the town will house
17,000 with a lively interweaving of income levels, family
sizes, and building types. The town center will serve over
100,000. Designed by Aarne Ervi and shown here, it is
in the initial stages of construction.*
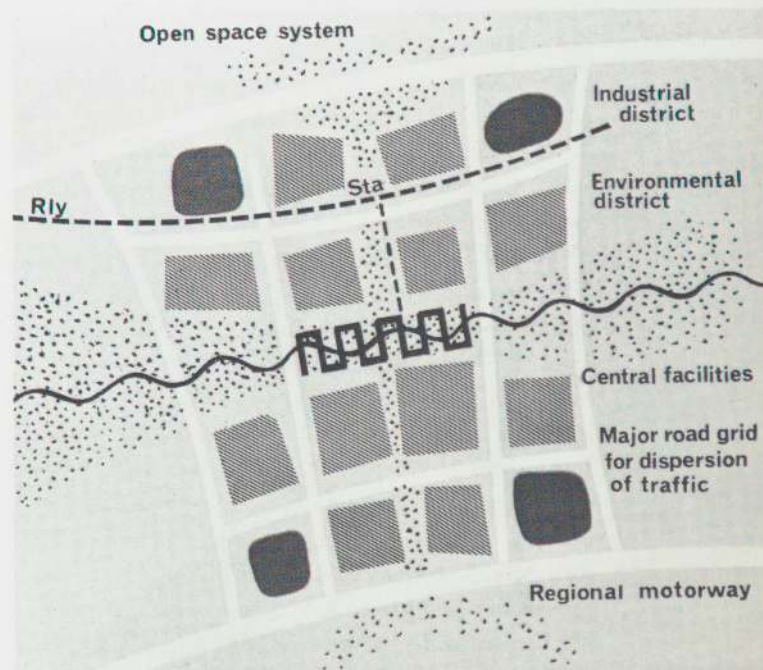
*Livingston New Town, 15 miles from Edinburgh, 29 from
Glasgow. Developed since 1962. An open-ended belt
along the Almond River will contain all central functions.*

burg, but he built a pilot project along a trolley line on the outskirts of Madrid, and published an internationally influential magazine.

Why *not* urbanize in narrow continuous bands along major transport lines to favor mobility, proximity to honest country, and unhampered growth?

The usual answer has been that pure linear development, indefinitely extended, brings the country close only at a price. Recognizable centers would become remote, and linear dispersion would replace the present indiscriminate sprawl with small apparent gain in sense of community. Why not instead, propose the semi-linearists, limit the length of each banded town? Or, since efficiency would anyway demand the separation of local and through traffic, let centers sprout like leaves from the arterial stem? And discussion continues, now emphasizing the advantages of linearism for change during growth, and for relative validity at any stage of construction.

Cumbernauld has closed ends, but its compact elongation serves as well as a true linear plan to bring open country close to its center, the first multi-level structure to house all the central functions of a town. Homage to Le Corbusier and his visions of linear megastructures, and tribute of a kind to Chambless and his Roadtown, for the spinal highway of Cumbernauld is backbone of the mile-long center. Since the architect of the center describes it as "a fragment of an elevated city," he evidently sees it as prototype of a larger and purer linear scheme.

Mobility, flexibility, expandability, expendibility, social interaction: these are the largely existentialist concerns of the liveliest European urbanist thinking of the last ten or fifteen years—thinking now assuming three dimensions, or four when the time element of movement, growth, change, is realized in the design. As British New Towns lose their insularity, so buildings lose their separate significance and give way to a concept of total environment as framework for human interaction. No longer things in themselves, buildings become generators and reflectors of activity, and possibly themselves mobile. There is little talk of architecture, for in its new role it approximates an attempt at environmental technology. Mechanical order, centric certainties and geometric perfections become equally meaningless.

Prominent in the dialogue are members of Team X, a loose group (outgrowth of CIAM) formed in the mid-fifties to explore elusive values of human associations and aspirations that they felt were disregarded in the stratified, over-generalized solutions of modern city planning. Members now include George Candilis and Shadrach Woods of France, Aldo van Eyck and Jacob Bakema of Holland, and England's inventive Smithsons.

"The principal aid to social cohesion is looseness of grouping and ease of communications," wrote Alison and Peter Smithson early in the fifties while criticizing the rigidity of the New Towns. They went on to a road mystique where few choose to follow, but flexible planning and the organization of pedestrian movement to encourage spontaneous cross-action have become general concerns.

Flexible and open-ended are the concepts of Candilis, Josic & Woods. In their city schemes the generator of habitat is a continuous Y-branching pedestrian way (called a "stem") with low buildings for all central functions. Plugged into this stem as Y-shaped offshoots are tall apartment buildings. The vehicular system again follows a roughly hexagonal pattern, but offset from the pedestrian system and intersecting it at a lower level. Their alternative "web," in which stems are interconnected as a multi-level grid, is so deliberately neutral that it might better achieve the architects' afocal urban objective, which is "to bring together the sum of life to all parts."

On the basis of free movement and non-finite urbanization, Cedric Price designed his "Potteries Thinkbelt: a plan for an advanced education industry in North Staffordshire." Classes, mostly technological, would be held in rail-buses, on the move or at a factory siding, while students and anyone else who needed a dwelling would live in random groups of housing units, all movable, expendable, and unfocused on a civic or campus center. Price thinks "calculated suburban sprawl" sounds fine.

So Europe arrives at a place we know well: the noplace of mobility and noncentricity, the no-place like home. The full circle is accomplished, and the Old World comes on strong with Wally Byam and his Airstream Caravans.

U.S. Now: Diversity?

If centricity comes into question in Europe, our opposite tradition has dissenters too, increasingly numerous though sharing little more than dissatisfaction with the way things have been going. Impatience with congested highways and with the devouring of land by roads and other auto-appurtenances, accounting for more than half of California's urban land,
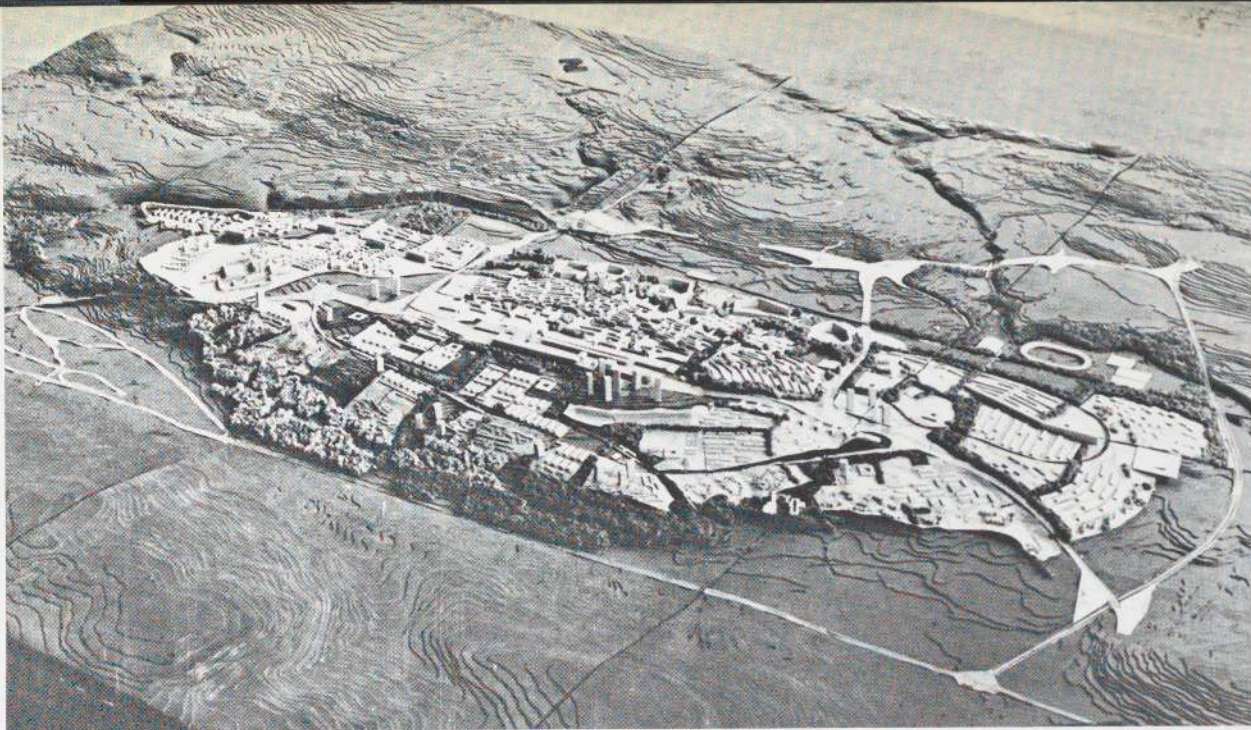
Cumbernauld New Town, 15 miles from Glasgow, Scotland. Developed since 1955, it will house 50,000 on the hill, all within a half-mile walk of the center, and another 30,000 or more in greenbelt-separated neighborhoods in the valley. L. Hugh Wilson, chief architect and planning officer; Peter Youngman, landscape consultant.
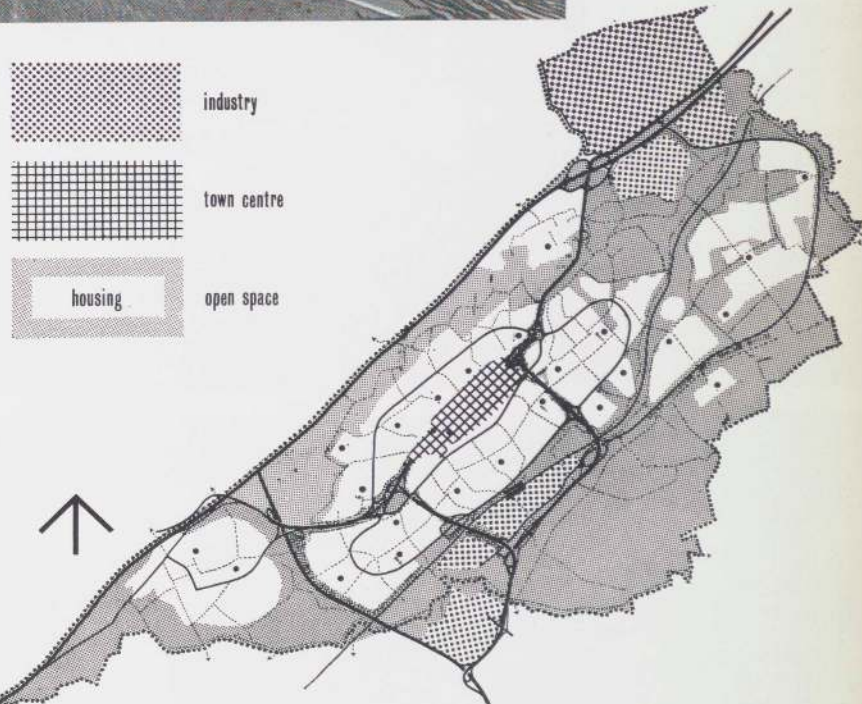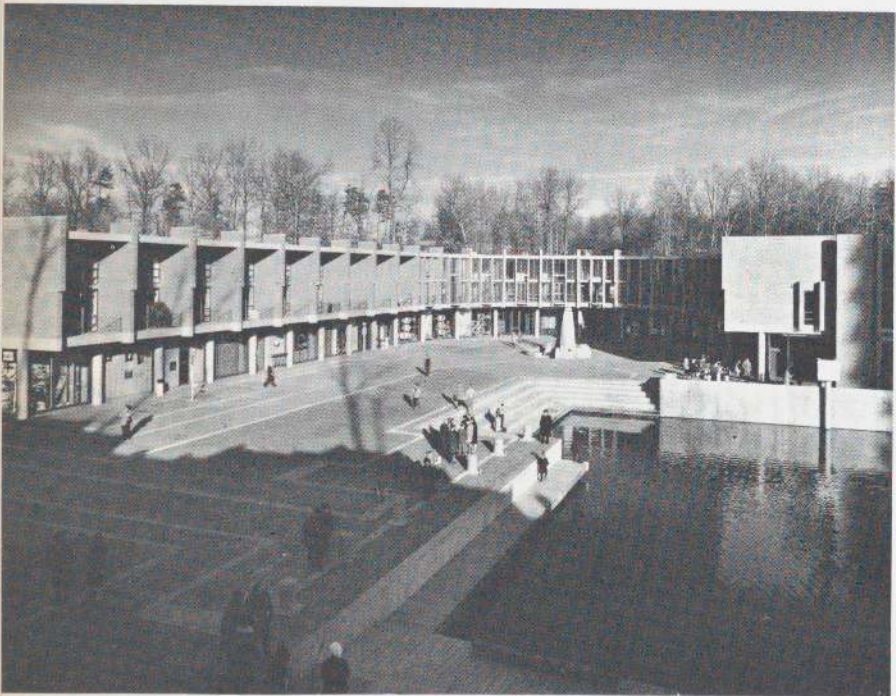
Cumbernauld's town center, in construction, runs along the ridge and encases the spinal highway. Geoffrey Copcutt, architect in charge.

industry

town centre

housing   open space

Cumbernauld housing is low and close, its open spaces stone-paved, useful, various, architecturally confined.

Reston, Virginia, 18 miles from Washington, D.C. An American-model New Town developed since 1963 by Robert E. Simon, private builder. Illustrated is the inter-mixture of town houses, apartments, offices, shops (with flats above) and recreation facilities at the pedestrian-oriented center of the first of seven "villages" that will have a combined population of 80,000. Whittlesey & Conklin, architects.

complements new appreciation of the advantages of concentration for complex interaction, economic and cultural, while an enthusiastic market for row houses turned "town houses" and for apartments with private outdoor rooms is encouraging higher residential densities. Even Los Angeles, prototype of Anti-city, is acquiring groups of high-rise multi-purpose buildings and talking of rapid transit, though what centers exist to be connected is unclear even to Angelenos; and a spontaneous centralizing tendency is also at work in the sub-regional shopping centers that are attracting theaters, offices, hotels, hospitals.

Inner-city characteristics of diversity, liveliness, immediacy, suddenly seem more desirable, and mass travel promotes this change of heart, for anyone who visits the old European centers knows that great things happen when city builders are also city lovers.

The isolated building loses meaning. What matters more are interactions of people, buildings, and nature. Reality may lie less in the individual person, artifact, or natural fact, than in their reciprocal relationships. Martin Buber, with his interdependent I and Thou, felt his way into this; the Chinese too, long ago; and Aldo van Eyck is not unique among architects in his attempts at dimensional realization of the inbetween, the place of interchange—Buber's "*das Gestalt gewordene Zwischen.*" Phrased in non-city terms, wasn't this Wright's great affirmation?

Part of the search for relatedness is a quickened interest in ecological thinking. It was the Bomb that woke us to the consequences of human arrogance, but now we find the air poisoned less by fallout than by fumes from automobiles working double time to transport us between far-flung daily objectives; and we find that our loose, indiscriminate urbanization pollutes streams, threatens wildlife, ruins great natural landscapes, and eats up prime farmland—150,000 acres each year in California alone. Not content to cry havoc and return to their bird-feeders, conservationists are mounting the barricades against further invasion by Anti-city, which they properly equate with Anti-country, and working for higher densities and less interference with natural cycles.

The one certainty is that further development must be based on the findings of an ecological survey national in scope, minute in detail. Goals beyond this are unclear, which may account for the deplorable lack of long-range ideals in the endless discussions of our grievous urban problems.

The answers to uncalculated sprawl are probably

less clear to the planning profession now than a decade back, for up and down the line, here as in Europe, grows an awareness that physical order valid to our day must be derived from the continuity and multiplicity of life itself. When a scientist such as René Dubos tells a mixed group of environmental planners that *diversity* in the environment is genetically so important that it must be achieved *even at the sacrifice of efficiency*, he begins to be heard, for even planners are becoming suspicious of hard-and-fast categories, homogeneous zoning, and generalized solutions. Will computers, the shiny new tools of urban planning, encourage rigidity or flexibility, death or life?

The scant discussion of, agreement on, or control over our long-range urban future has the great advantage of leaving the field wide open, but this passivity before fate does seem un-American.

Obviously we need a clearer image of the real alternatives for metropolitan life. Since alternatives are real only in the full scale of actuality, Federal assistance is needed to assemble land for a multitude of pioneer ventures in urbanism, whether by private builders, Big Business, or a Comsat-like mixture of public and private enterprise that can develop an urbanization technology comparable to space technology. Money no longer needed for moon travel would be handy. "Demonstration Cities" needn't be confined to the ghettos. Why not offer ghetto dwellers, inner-city or middle-class suburban, some real choice? It's a big country, still with room for a few more subdivisions, but let us explore some of the splendid alternatives: not only revitalized centers, but New Towns in town, New Towns out of town, and New Cities developed in regions far removed from existing megalopoli—regions where ecology is favorable, landscape beautiful, vested interests few, prospects bright.

John Galbraith says "there is no reason to believe that an unplanned metropolis will have any better chance of beauty than an unmade bed"; but plans come good and bad. Some, handsome enough, are as hostile to human habitancy as the neat and deceptive pie-beds of one's childhood. Others, recognizing the interdependence of life and its physical environment, would be a joy to slip into.
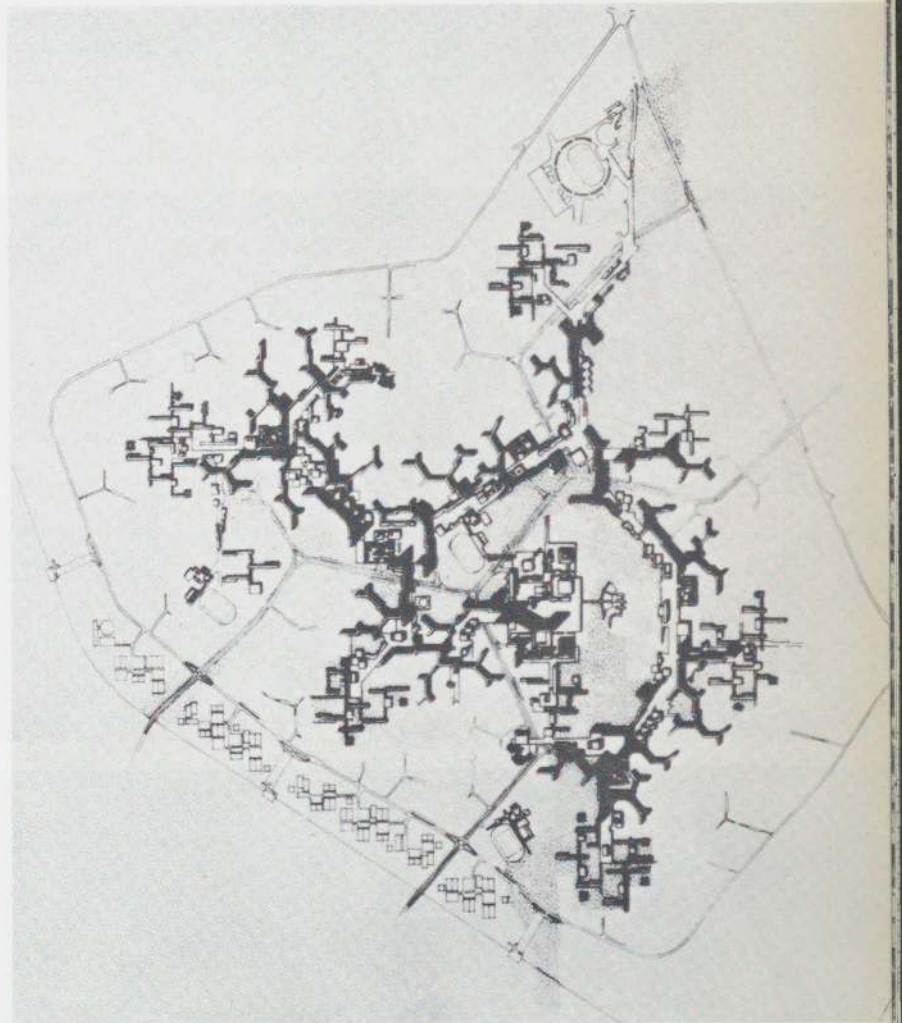
Le Mirail, town of 100,000 five miles from Toulouse, France. Competition-winning site plan of 1961 by Candilis, Josic & Woods shows apartment buildings branching off continuous pedestrian "stem" of communal activity. Separate road system.
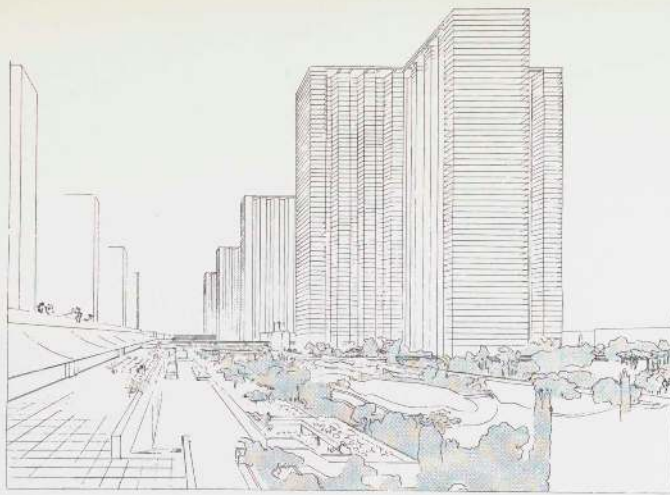
Voisin Plan for rebuilding Paris, 1925.
Le Corbusier, architect.

Perhaps the clearest and most compelling visualization of the city as isolated buildings in a park is that developed in the twenties and thirties by Le Corbusier. The Plan Voisin places 60-story glass-walled cruciform office towers at vast distances from each other in a park that would have cleared out a substantial section of Paris. Each tower marks another subway station; an elevated highway sweeps through above the tree-tops, and there would be numerous long, low terraced structures connecting the towers and accommodating restaurants and shops. Housing and industry are in separate zones.

The abstract inflexibility of this plan does not correspond very well to the way people live, but the image of giant towers standing as free sculptural objects in a park is so memorable that it has dominated, and distorted, ideas about urban planning ever since. Housing projects in the United States sponsored by both the Federal government and private investors, in which drab, small-windowed, brick slab or cruciform "towers" are placed in unintelligible relation to each other, in what is supposed to be a "park," are the feeble echoes of Le Corbusier's grandiose concept.
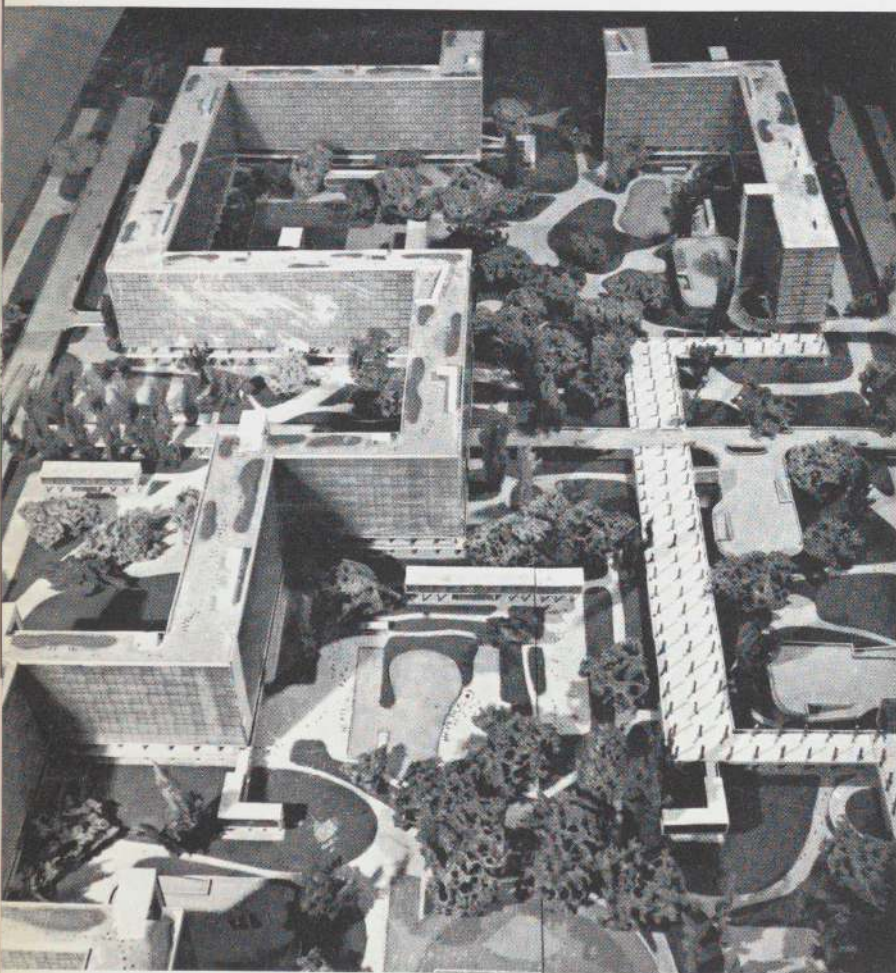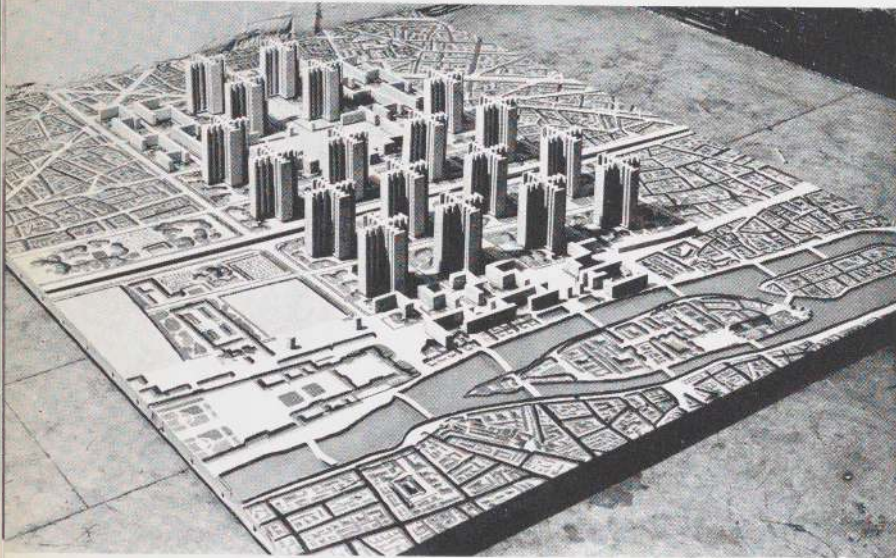
Project for La Ville Radieuse, 1929-35.
Le Corbusier, architect.

Even in his earliest urban projects Le Corbusier made use of very long, relatively low buildings as apartment house elements, in contrast to vertical office towers. He thought of the linear apartment house as a continuous structure that would make right-angled turns in order to define and partially enclose park-like public areas, which thereby become vast outdoor rooms. The model shows such a linear element at the left; at the right a similar section has been removed, showing that circulation continues under the building from one park area to the next.
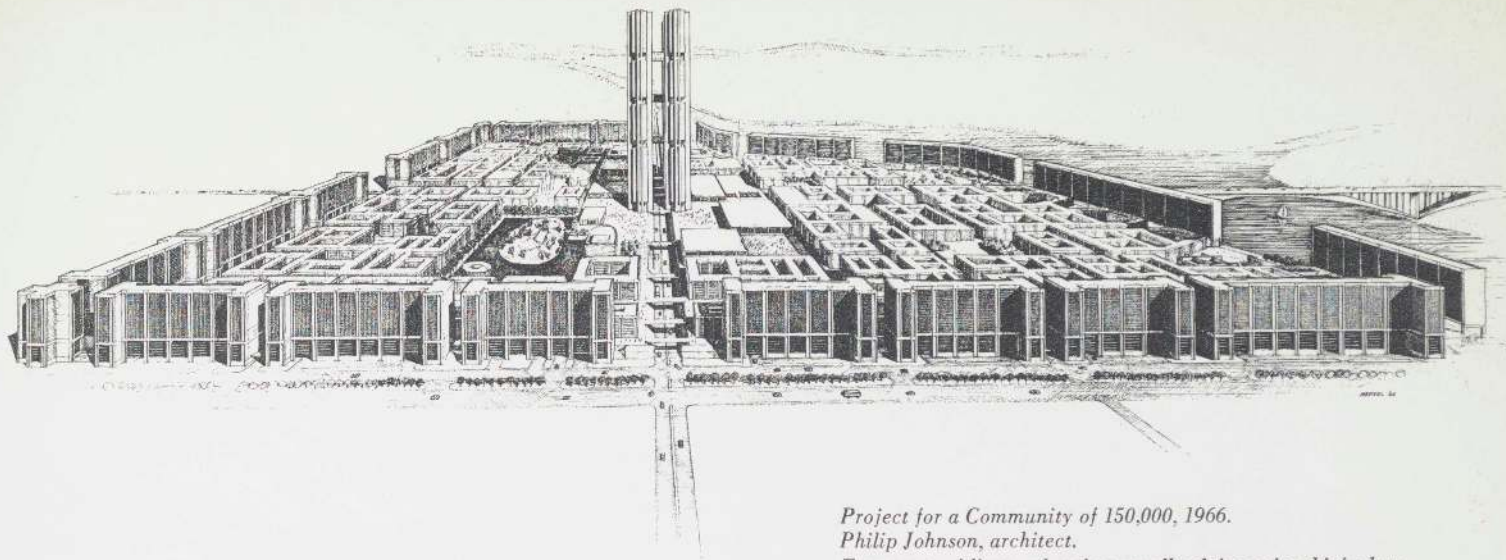
Project for a Community of 150,000, 1966.
Philip Johnson, architect.

Exponents of linear planning usually claim as its chief advantage the fact that the linear city could be open-ended, and therefore capable of indefinite growth. This project begins with a different assumption: it is desirable to build communities that have set limits.

A mile square area is enclosed by a twenty-story apartment structure that serves as a boundary. Apartments in this building look out at the old city (or countryside, or suburbs, or renewed city) or in to a completely planned community. The intersection of north-south and east-west axes is marked by a 150-story office skyscraper. At its base are community facilities bordering a park. All other housing in the area is seven-stories high. Heavy traffic passes underneath the entire "city" on its own street grid system; minor vehicular traffic is limited to certain streets on the main level above.

The Lower Manhattan Plan, prepared for the New York City Planning Commission, 1966.
Wallace, McHarg, Roberts and Todd; Whittlesey, Conklin & Rossant, architects and planners.

The architects' primary effort, apart from revisions to the vehicular and pedestrian circulation systems, is to introduce waterfront areas and buildings of "humane" scale. This is achieved by the kind of picturesque composition successfully used at Reston, in the countryside; its use at the foot of New York's most oppressive skyscrapers might perhaps be less convincing, but the increased accessibility of the waterfront would of course be an enormous advantage and the complicated groupings do indeed suggest a lively and interesting environment.
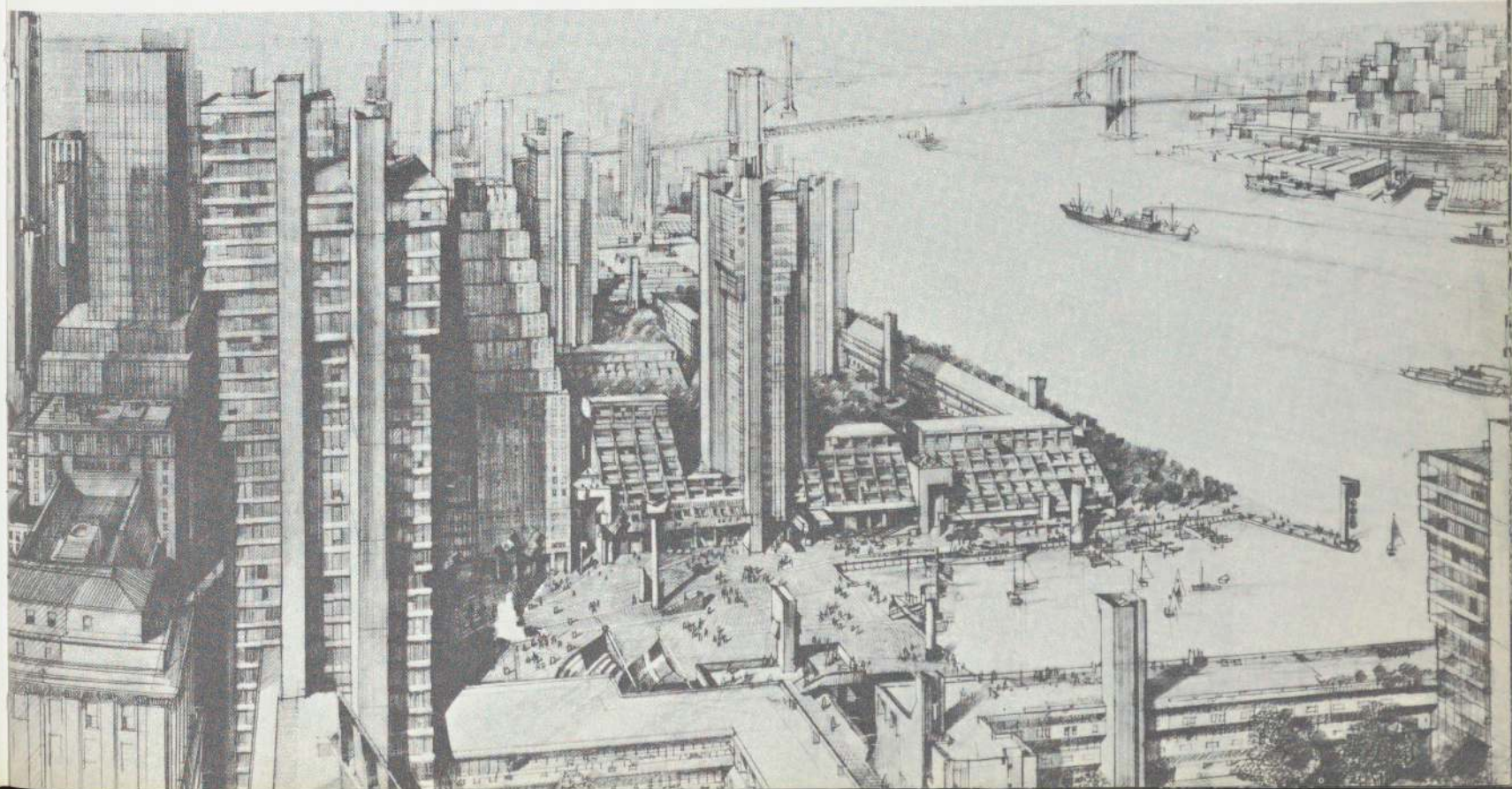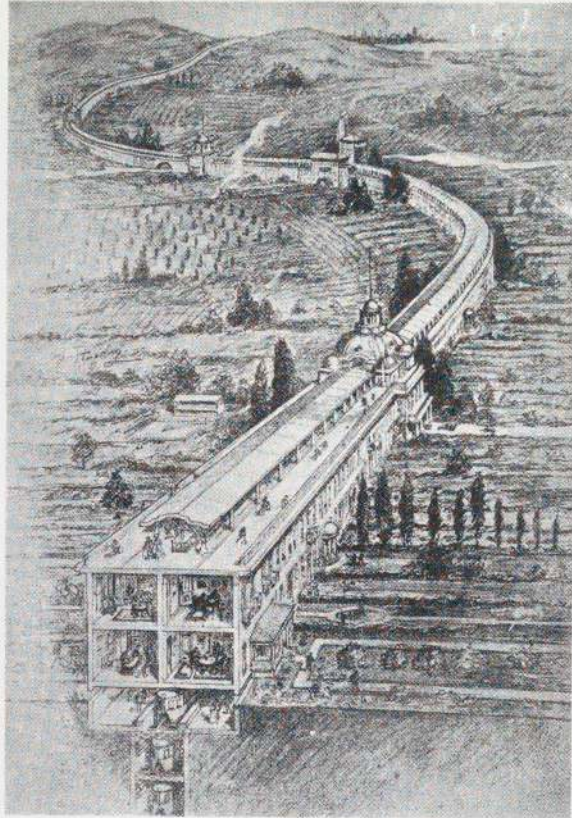
Project for Roadtown, 1910.
Edgar Chambless, designer.
Chambless assumed that buildings grouped along a route of travel ought logically to incorporate the means of transportation itself, and so he planned a continuous concrete house of indefinite length, with trains in the basement and a pedestrian street on the roof. The designer observed that commuting time to and from a major city would be reduced; there would be great economies in the construction of utility systems; and such a compact linear city would protect cultivated land from the blight of suburban sprawl.
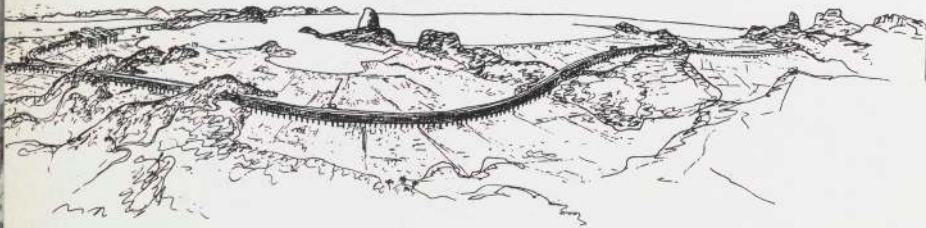
Projects for Road-Buildings: Rio de Janeiro, 1929; Algiers, 1930-34. Le Corbusier, architect.
When first published in the thirties these projects seemed curiously visionary; but today the ideas they involve are more pertinent and practical than ever before. Le Corbusier observed that national investments in automobile highways would rival and even surpass investments in buildings. He also saw that while governments were able to overcome all obstacles affecting super-highways, they seemed to falter when faced with problems of urban renewal. His solution was to combine roads and buildings, producing a variation on the linear city that is only now beginning to be realized. (A three-mile sample has been built in Tokyo.)
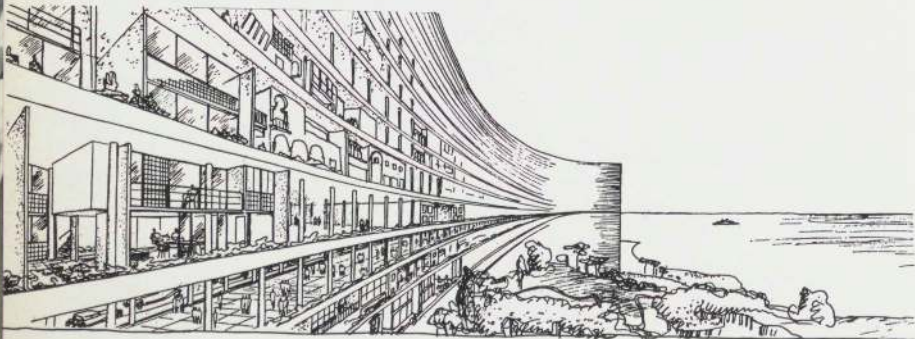
The first sketches propose a 14-mile long, 14-story high continuous serpentine building for Rio de Janeiro. A highway is on the roof; the building leaps across rivers and burrows through mountains. Similar studies were made for Algiers; here Le Corbusier proposed that double-height floors would be built and owned by the state as "terrains artificiels." Private individuals would obtain long-term leases and then build within the structure whatever they wanted. The road-building is thus conceived as a kind of man-made land belonging to the community. New York's Triborough Bridge viaduct, crossing Randall's and Ward's Islands, could be a first stage of Le Corbusier's project: it is a road publicly owned (together with the land it crosses) which now lacks only the intermediate levels to accommodate housing and shops.
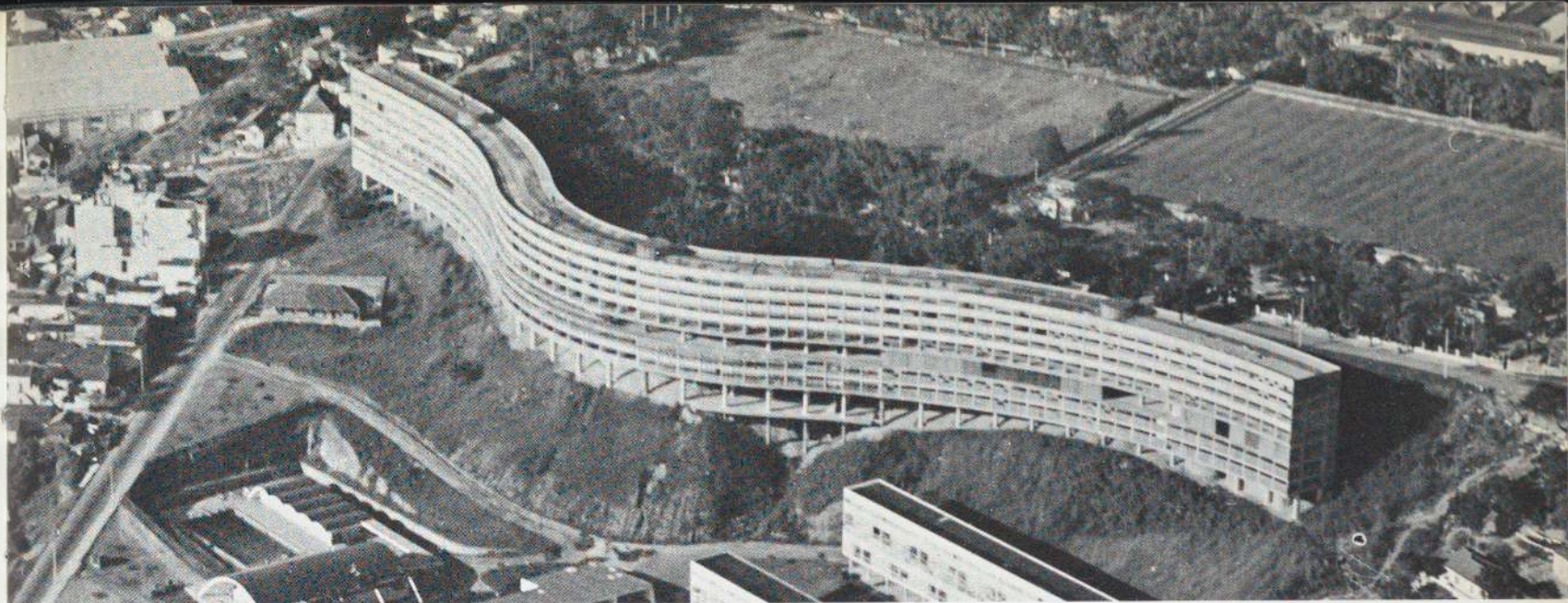
Pedregulho Apartment Housing, Rio de Janeiro, 1950.
Affonso Eduardo Reidy, architect.
Probably the closest approximation to Le Corbusier's proposals for linear, serpentine buildings following the contours of the land is Affonso Reidy's housing project at Pedregulho in Rio de Janeiro, although it is too small to boast an automobile highway. Even in miniature, however, it suggests the effect such buildings would have in the landscape.
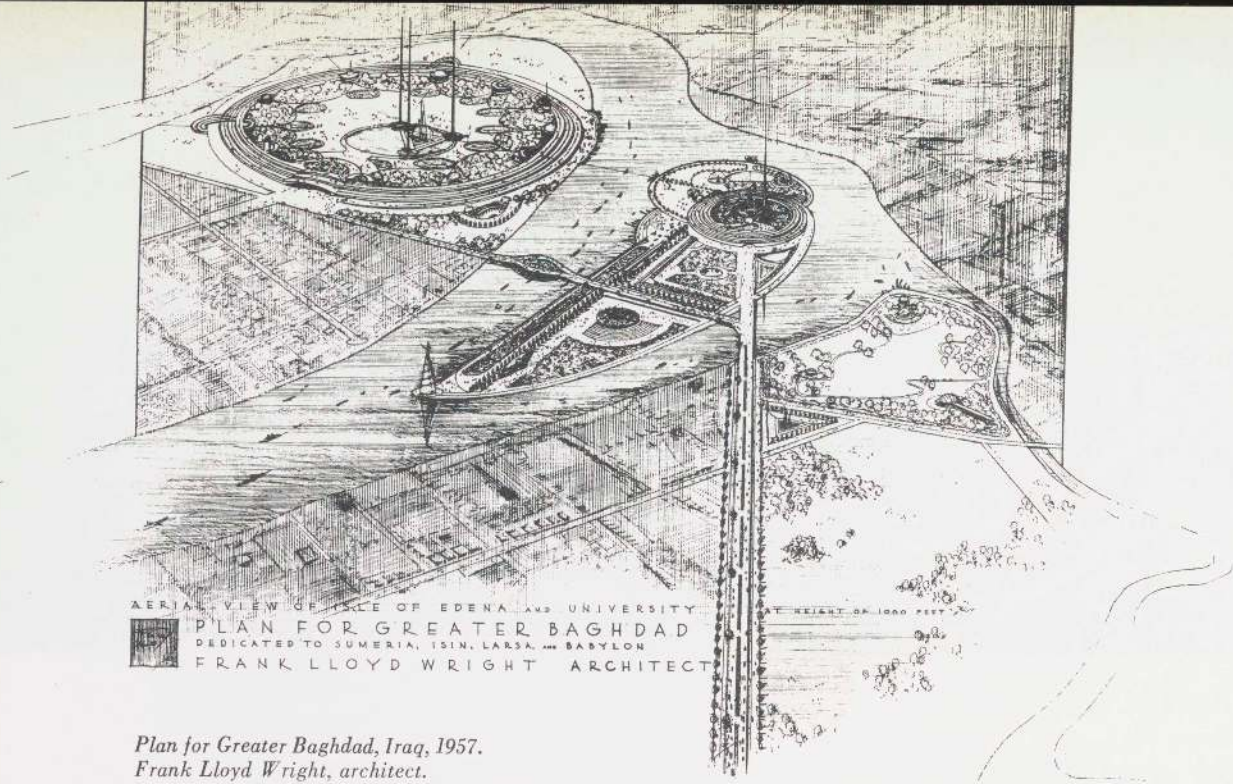
Scarborough College, University of Toronto,
Ontario, Canada, 1966.
John Andrews, coordinating architect; Page & Steel, associated architects.
Since the end of World War II, universities have commissioned numerous important buildings, and a few university efforts provide small-scale demonstrations of what coordinated planning in cities might accomplish.
On this continent, perhaps the most interesting single achievement is Scarborough College in Toronto. Its architect avoided the unnecessary complication of many separate buildings, no one of them big enough to have much meaning or presence, and instead grouped all facilities into one continuous structure capable of being extended both at its ends or at a point near the center, where he has located a huge room that serves as indoor campus. By twisting the building's axis at intervals, Andrews avoids the monotony of excessive length and also skillfully relates the structure to the site.

AERIAL VIEW OF ISLE OF EDENA and UNIVERSITY AT HEIGHT OF 1000 FEET
PLAN FOR GREATER BAGHDAD
DEDICATED TO SUMERIA, ISIN, LARSA, and BABYLON
FRANK LLOYD WRIGHT ARCHITECT
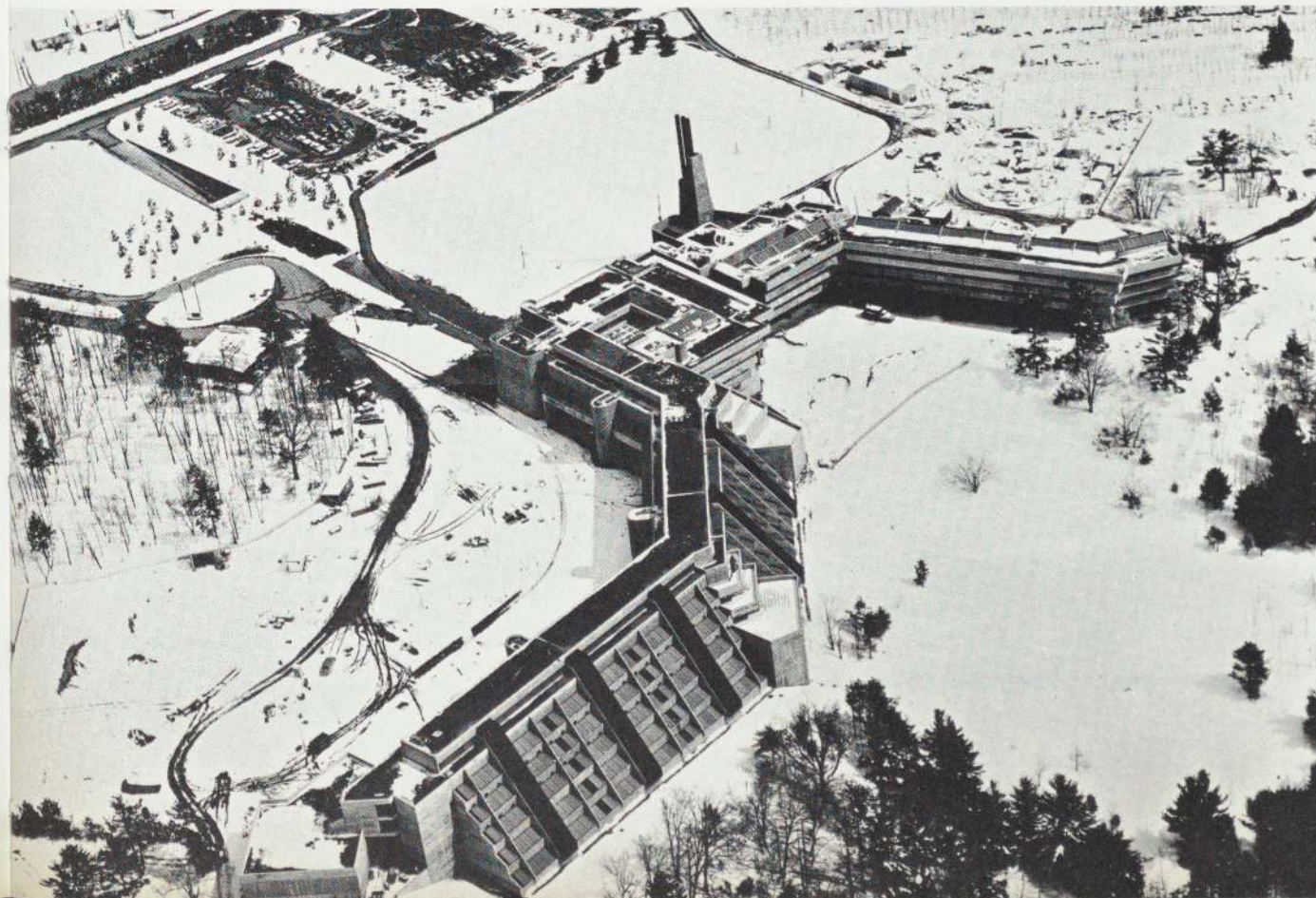
Plan for Greater Baghdad, Iraq, 1957.
Frank Lloyd Wright, architect.
*Another of Wright's essays on the architectural uses of the
road is his project for Baghdad. An opera house and a univer-
sity are each set within large areas ringed by three-tiered
highways. In the university complex, individual buildings
would be hooked onto the inner side of the road and would
extend into the park. The road not only combines access and
parking facilities, but is also an architectural element con-
trolling the placement of buildings. Wright also proposed
modifications to the shape of the island, relating it to the
pattern of roads.*

Project for a Civic Center, Pittsburgh, Pennsylvania, 1947.
Frank Lloyd Wright, architect.
*Wright's most ambitious and perhaps far-sighted interpreta-
tion of the architectural possibilities of the road was his proj-
ect for a cultural center to be built in Pittsburgh. The building
is formed by taking a highway and coiling it into a truncated
cone. Smaller ramps at intervals would provide quick access
for those unwilling to take the leisurely drive to the roof
garden. Theaters and recreational facilities are suspended like
lanterns inside the vast space thus enclosed.*

*The project suggests that the elevated road makes available
a new kind of architectural monumentality. It also suggests a
way of creating recognizable entities, as an alternate to the
extended linear concepts most theorists have preferred.*
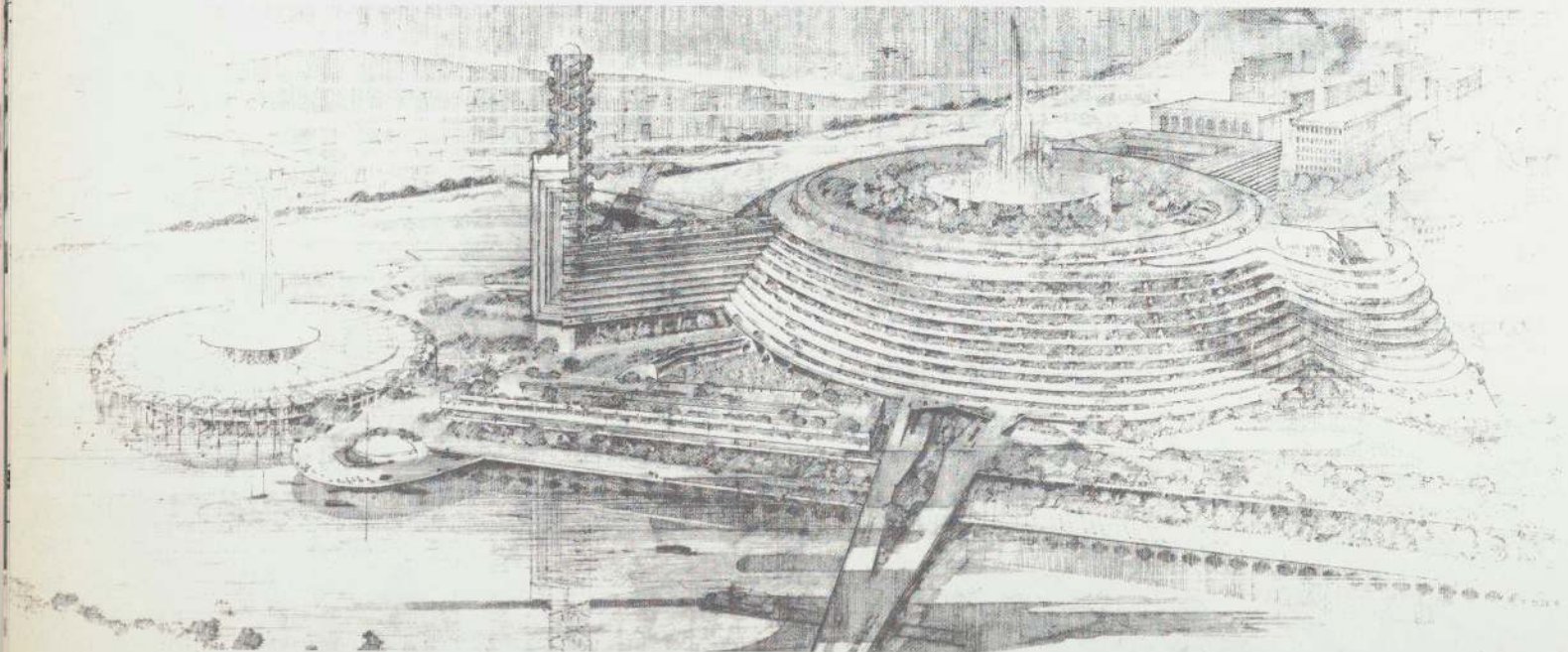
Helicoide de la Roca Tarpeya, Caracas, Venezuela, 1956.
Jorge Romero Gutiérrez, Pedro Neuberger, Dirk Bornhorst,
architects.
Caracas is divided by a mountain considered useless for build-
ing until the architect-entrepreneur, Jorge Romero Gutiérrez,
conceived of a shopping center as an extension of the super-
highway that connects both halves of the city. The mountain
has been terraced to make a cantilevered double spiral ramp
accommodating stores and automobile traffic. Unlike Wright's
Pittsburgh triangle project, the Helicoide does not enclose a
single vast space. It is a way of terracing a mountain in order
to make it both habitable and accessible. The cantilevered
roads were meant to carry landscaping, but the project has
unfortunately never been completed.

21

Architecture and Urban Renewal

Almost every large city in the United States is planning or executing ambitious programs of urban renewal. Decisions which will affect city life for decades to come must be made, and are being made, now. But we have at best a confused notion of what architecture and urban planning can be expected to achieve.

It would be presumptuous to suppose that problems of poverty and prejudice, and the hundred other evils that beset us, can be solved by architecture alone. Works of art are not a substitute for human decency. The arts of architecture and urban design are tools at our disposal: how we use them depends on what we want.

We want to solve the pressing social problems of the day so that everyone will have the means and the right to live in cities as comfortable and beautiful as the fantastic resources of technology can make them. We want planning more generous in its view of life than we have so far had.

We should want to know first of all what architects and planners think can be done now, and we should evaluate their ideas in terms of what we want cities ultimately to become. If, for example, we think that in the ideal city everyone must get about by private automobile, we will want still more expressways and parking facilities. But if we conclude that the ideal city should not be built primarily to accommodate automobiles, we will want to know more about systems of public transportation and their effects on employment, housing and recreation. We might also change our ideas about what constitutes the right size for a building. Is it possible that our buildings, far from being too big, are really not big enough? How big would they have to be to include their own transportation systems? How should we accommodate industrial facilities close to those areas where job opportunities are most needed? What kinds of parks would be most useful? Can a street be a kind of a park?

These questions are of course commonplace to professional architects and planners: it is the purpose of the exhibition to make the ideas such questions involve more accessible to the public.

To do this the Museum commissioned four teams of architects and planners associated with the faculties of four universities: Cornell, Columbia, Princeton, and Massachusetts Institute of Technology. Their assignment was to demonstrate how certain planning problems might be solved in New York. The problems were selected by the Museum and the four teams, and were defined to include specific social as well as aesthetic goals:

1) *How can we modify the existing grid plan* to improve circulation, encourage the development of parks and new neighborhoods, and clarify the order implied by the terrain itself?

2) *How can we provide housing and other kinds of renewal* without *relocating the people for whom such improvements are intended,* and at the same time convert neighborhood blights into acceptable components of the visual scene?

3) *How can we make the waterfront both visible and useful,* giving it an architectural weight that would relate it to major cross-town streets and lead to the development of new kinds of neighborhood and institutional centers?

4) *How can we develop large segments of new land* out of relatively underused, or mis-used, peripheral areas, so that they alter the character of existing neighborhoods by providing important new amenities?

One area in New York City offers an ample field in which to study these and many other problems: the blocks between 96th Street at the south to 155th Street at the north, but excluding Central Park; and from the Hudson River at the west to the East River, Randalls and Wards Islands, and the southern tip of the Bronx at the east.

Each team concentrated on a different problem. Taken together, their solutions suggest broad patterns of development rather than a "master plan." Within this frame of reference other interpretations and details are certainly possible: that is the significant advantage of a procedure which seeks to elicit urban form from the character of the place, the time, the institutions and the people.

Are the varied proposals made in this exhibition feasible? Technically and economically, yes: their cost compares favorably with a few months of modern warfare. Would they yield an urban scene healthier and more beautiful than what we have had? The four teams of architects and the Museum think they would. But do they represent changes we really want? Only the public—which includes officials both elected and appointed—can decide. The exhibition is meant to help the process along.

Arthur Drexler
Director
Department of Architecture and Design
The Museum of Modern Art

■ *Modification of existing grid plan*
■ *Housing without relocation*
■ *Waterfront renewal*
■ *New land*
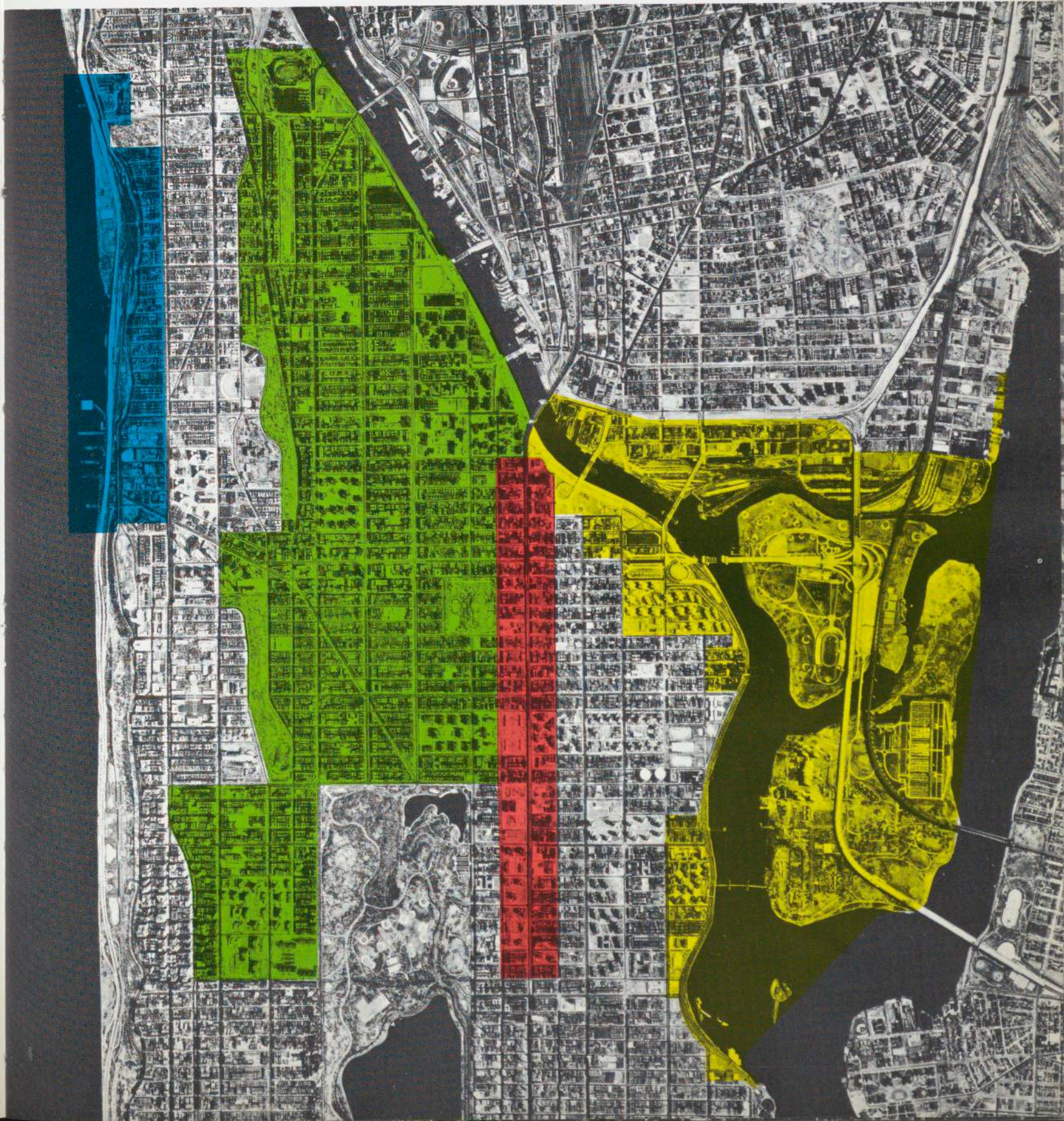
Cornell University

Colin Rowe and Thomas Schumacher; Jerry A. Wells and Alfred H. Koetter.
Assistants: Steven Potters, Michael Schwarting, Carl Stearns
Acknowledgments are also due to Franz G. Oswald

PROBLEM:

How can we modify the existing grid plan to improve circulation, encourage the development of parks and new neighborhoods, and clarify the order implied by the terrain itself?

There are at present two major urbanistic conceptions: the traditional city—*a solid mass of building with spaces carved out of it;* and the city in a park —*an open meadow within which isolated buildings are placed.* The traditional city fails to meet our needs for open space. The city in the park, an early twentieth century invention, lacks the density and vitality we associate with the urban experience. Both of these alternative and contrary concepts are already present within the area north of Central Park, and this project is designed to mediate between them.

The existing structure of streets and blocks exhibits a nineteenth century version of the traditional form, but the recently constructed areas of project housing intrude a haphazard version of the city as isolated buildings; "renewal" has so far resulted in increasing rivalry between these two conditions. Neither one of them functions successfully.

There are also specific problems of the terrain, some of which are produced by its boundaries. On the west side, an escarpment; on the east, the tracks of the New York Central; to the south, the extended rectangle of Central Park: all suggest a pronounced linear movement which is qualified and distorted by the diagonal of the Harlem River. Also to be accommodated are two interruptions within the otherwise graph-paper grid: Mt. Morris Park and the diagonal of St. Nicholas Avenue.

These considerations derive from the nature of the site. Other considerations obviously derive from the ways the site will be used. By the introduction of commercial establishments, academic institions and recreational facilities, as well as new housing, the site could become an uptown magnet displaying urban qualities scarcely attainable in midtown. Its development must therefore be related to the entire metropolitan area as well as to the locality.

PROPOSAL:

Implicit in the site is a division into three zones. Two of them should be developed as "the city in a park"; the third zone has been least interrupted by new housing and still retains the grid plan of the traditional city; its character should be preserved and improved.

In the east and west zones space would be opened up as much as possible. New and existing buildings would then stand as independent objects in *parks three or more blocks wide and forty to fifty blocks long.* Central Park would thus be extended north to the Harlem River in two green corridors. The east corridor is bounded by Lenox and Madison Avenues; the west corridor extends from Eighth Avenue to a boundary made irregular by Morningside Park, St. Nicholas Park, and Colonial Park.

Within each of these zones a total of ten new 60-story apartment towers would rise out of park land; there would also be long, low units of terrace housing. The eastern zone incorporates Mt. Morris Park and adds to it a new formal lake. North of this, and placed so as to reinforce the corridor-park concept, is a building complex ten blocks long for commercial and, perhaps, light-industry facilities. Wherever the pattern of existing project housing requires reinforcement, additional units have been added in the original style. At other places new housing is used to provide an architectural setting for these earlier projects.

Both the central and west zones terminate in a new stadium at the north; at the south, flanking Central Park, the plan distinguishes an enclave that incorporates Park West Village and other housing. Within this enclave the architects' method of procedure can be studied in detail. Existing blocks of traditional housing are opened up by the removal of those units no longer worth rehabilitating. Interior yards are thus converted into quiet alcoves opening off the street. The major achievement of this plan, and its chief purpose, is its revelation of an order waiting to be extracted from the city's chaos. But it is an order produced by encouraging variety rather than suppressing it.
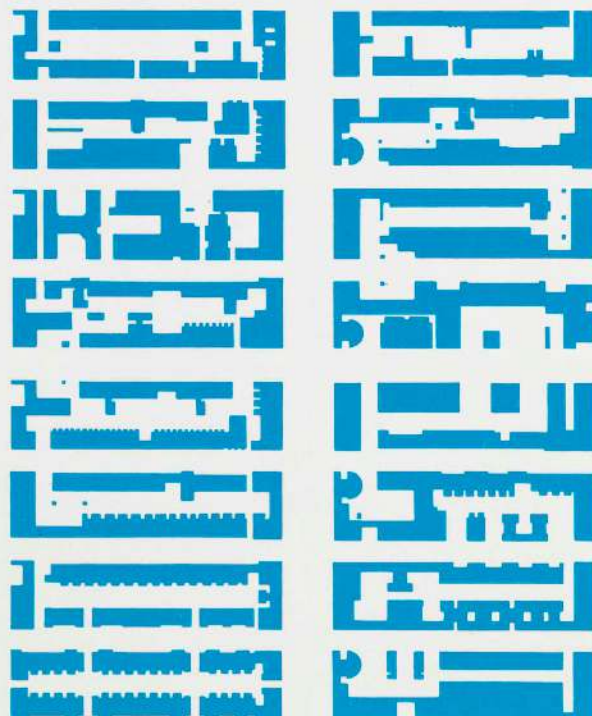
Site plan
■ *New buildings*
■ *Parks*
■ *Water, Mt. Morris Park*

Plan preserves central spine of existing grid-plan buildings, while flanking this with "corridor" extensions of park system.
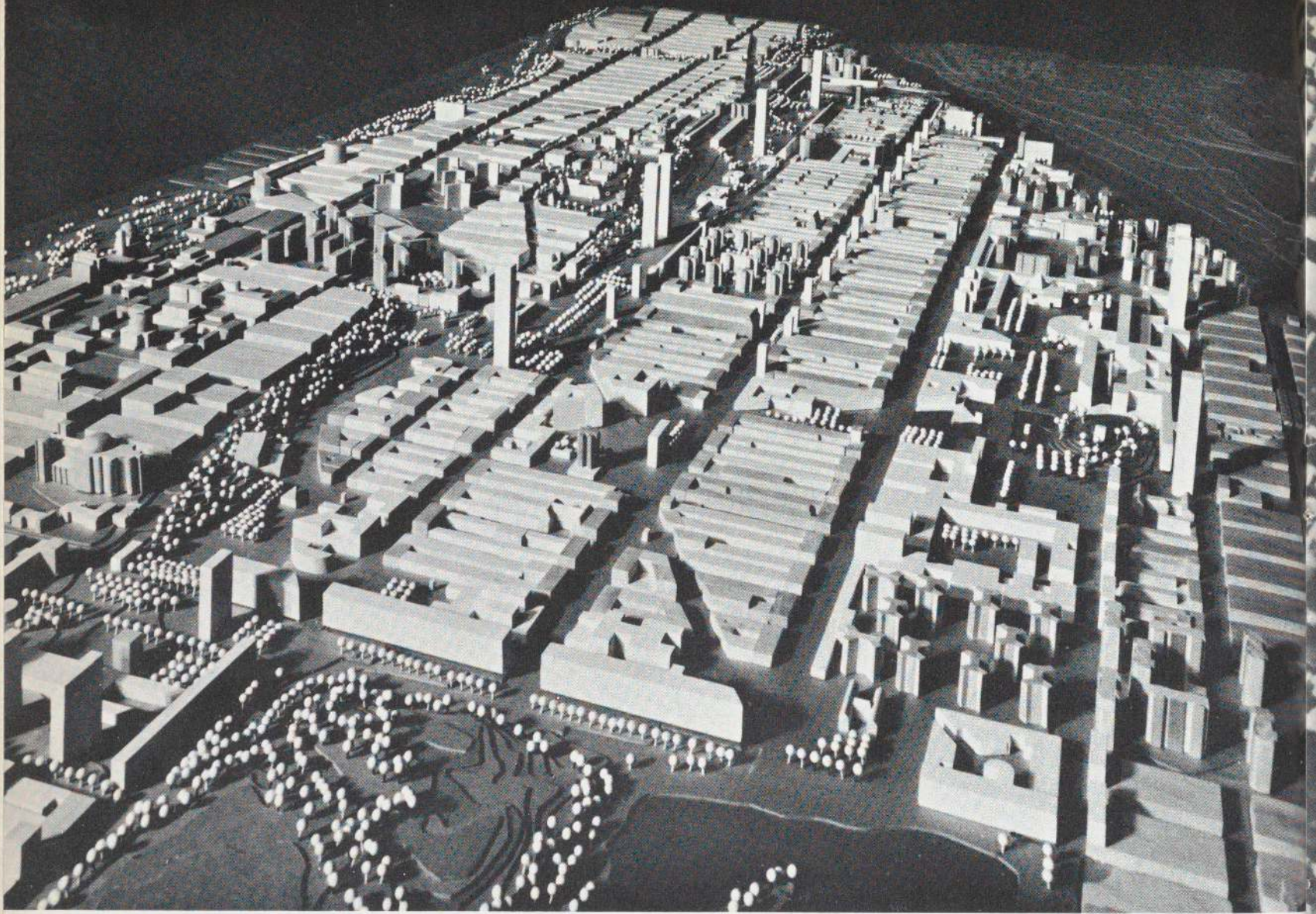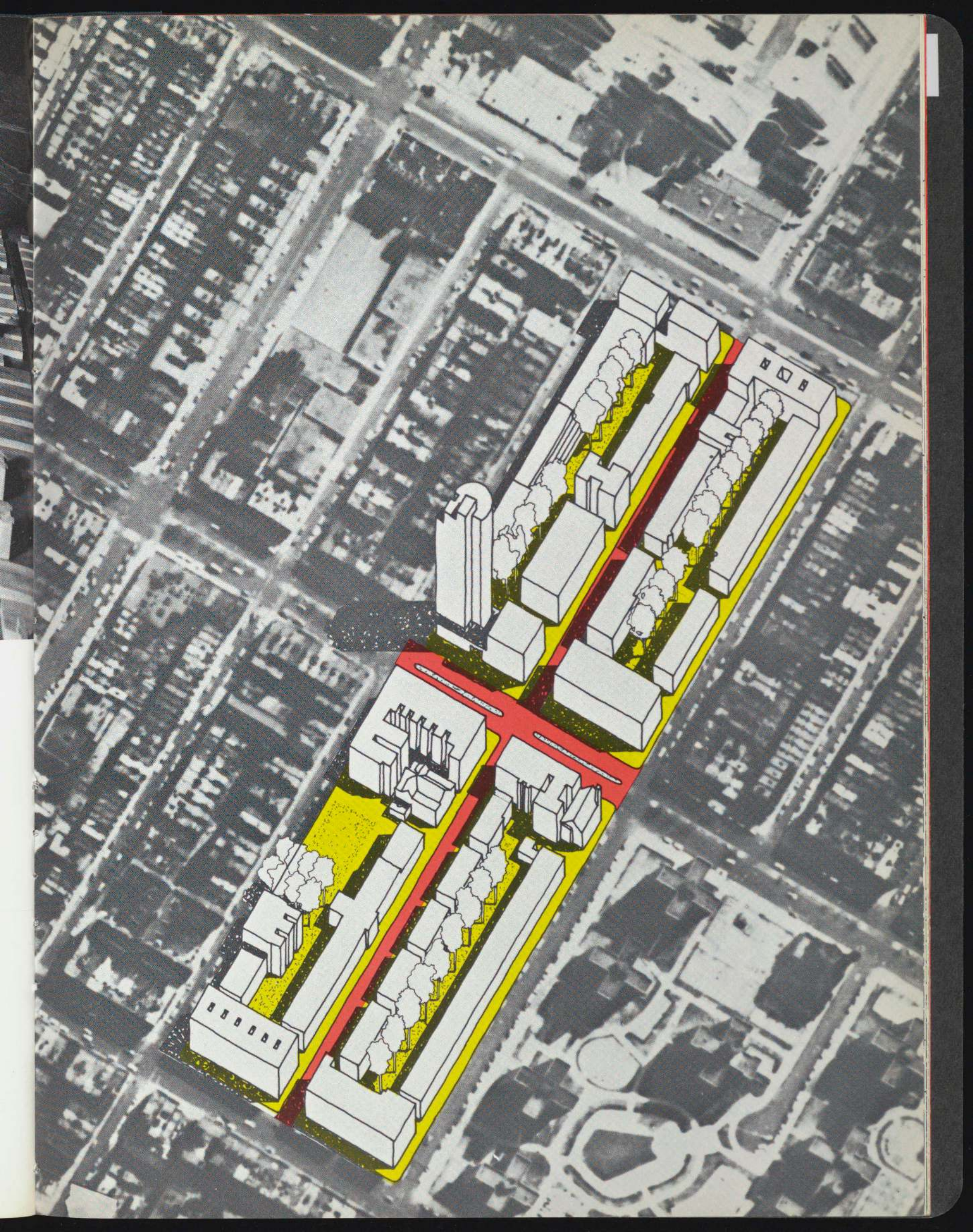
Model. Central Park in foreground.

Left: Plan shows sixteen typical blocks lying between Lenox and Eighth Avenues in the area that the general scheme proposes to preserve and improve without destroying the clarity of the street grid. Possible strategy for local development converts backyards into playgrounds; potentially adequate existing housing is rehabilitated; public buildings acquire the appropriate settings that their social importance might suggest.
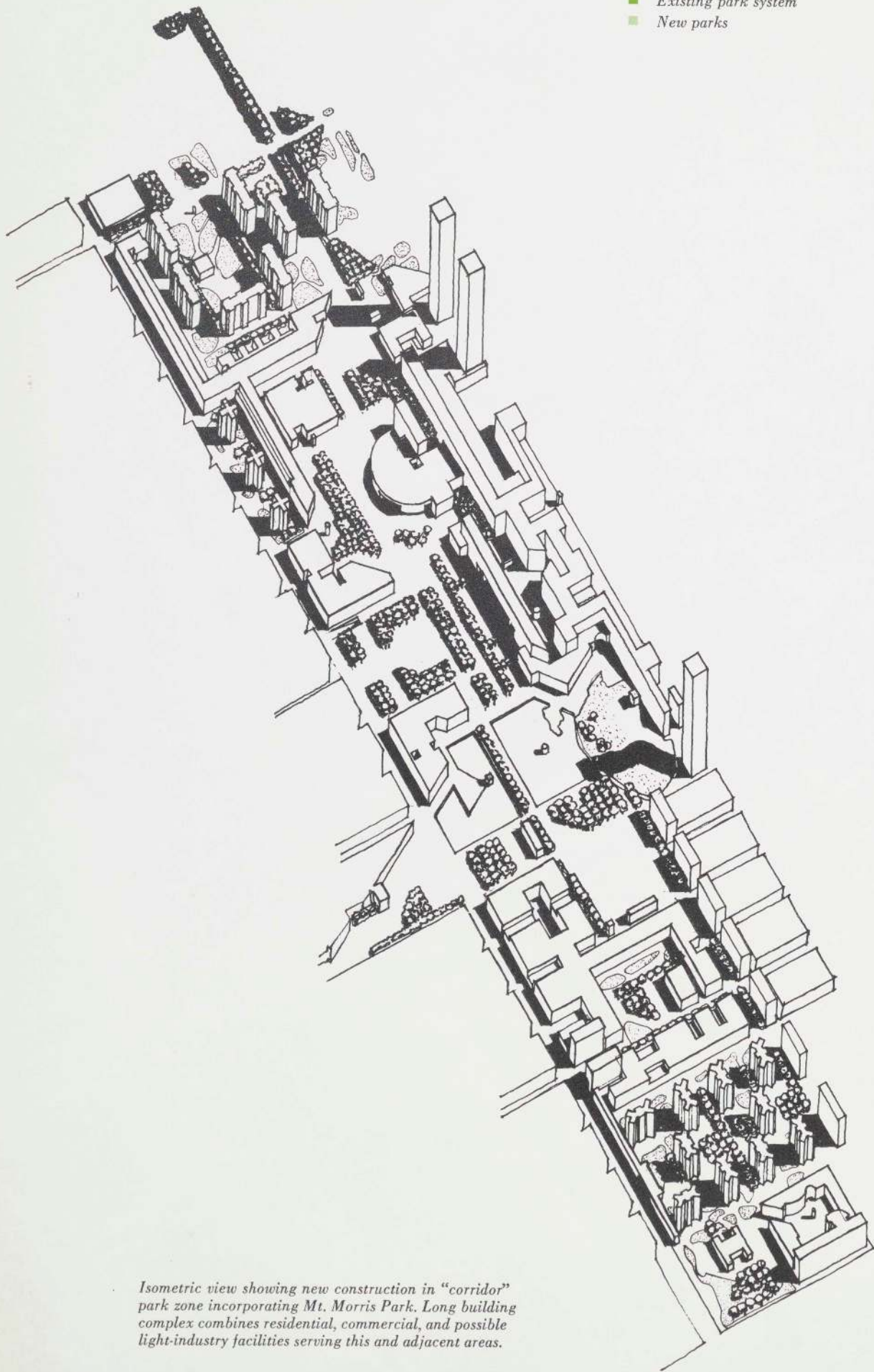
Facing page: Perspective shows four such block renovations in the context of the existing city.

■ Pedestrian circulation
■ Roads

Isometric view showing new construction in "corridor" park zone incorporating Mt. Morris Park. Long building complex combines residential, commercial, and possible light-industry facilities serving this and adjacent areas.

Columbia University

Jaquelin T. Robertson, Richard Weinstein, Giovanni Pasanella, AIA; Jonathan Barnett, Myles Weintraub
Assistants: Benjamin Mendelsund, George Terrien, Paul Wang; Structural consultant: David Geiger
Mechanical and electrical systems consultant: Michael Kodaras; Construction consultant: Edward Friedman

PROBLEM:

How can we provide housing and other kinds of renewal without relocating the people for whom such improvements are intended, and at the same time convert neighborhood blights into acceptable components of the visual scene?

Harlem cannot be rebuilt without providing new homes for those displaced by the renewal process. Piecemeal solutions have proved ineffective, but a large-scale relocation program is both inhumane and infeasible. The railroad tracks that emerge from under Park Avenue at 97th Street, and then run along an elevated structure to 134th Street and the Harlem River, are probably the area's greatest single source of blight. For all practical purposes the tracks are permanent and immovable; a new train-tunnel system would involve an extreme dislocation of the present transportation net, as well as astronomical construction costs. And yet the railroad viaduct, because of its length, its strategic location, and the fact that it belongs to a single owner, is the key to the problem of relocation.

PROPOSAL:

By building over the railroad tracks new housing could accommodate nearby families before the areas they vacate are cleared for redevelopment. Use of air rights over the tracks would convert this major source of blight into a new building stretching from 97th Street to 134th Street.

The tracks would first be covered by a concrete vault, and on top of this would be built new housing, shops and community facilities. The concrete vault would be no wider than the existing street.

The present level of Park Avenue at 97th Street would then extend along the top of the vault as a *traffic-free pedestrian boulevard,* supporting shops, restaurants, theaters, and schools, with mixed-income housing rising on either side. Along the sloping sides of the vault would be town houses and apartments, related to the scale of surrounding developments. Ample parking facilities would be provided below grade. Trains and traffic running inside the vault would continue as they do now, except for the elimination of some of the less important crosstown streets. Well-ventilated and brightly lighted, the vault would be as long as many existing tunnels in daily use.

A clean and quiet electric bus would run along both outer sides of the vault at an intermediate level, accessible from the streets below and the pedestrian boulevard above, providing fast and pleasant local transportation.

At important intersections along Park Avenue, such as 110th, 116th, and 125th Streets, there would be major community facilities: a wholesale food market, a large office building, theaters, and a new railroad station and bus terminal. Each of these facilities could become a core for the long-suggested development of new commercial centers in Harlem.

Although the vault itself would be a continuous structure (penetrated by crosstown streets) the buildings rising above it would be both separate and varied in character and height. Construction sites along the vault would be open to private developers as well as public building authorities. As the old buildings on either side are removed, construction would extend into those vacated areas to relate the new Park Avenue building to existing housing projects, as well as to old buildings worth renovating.
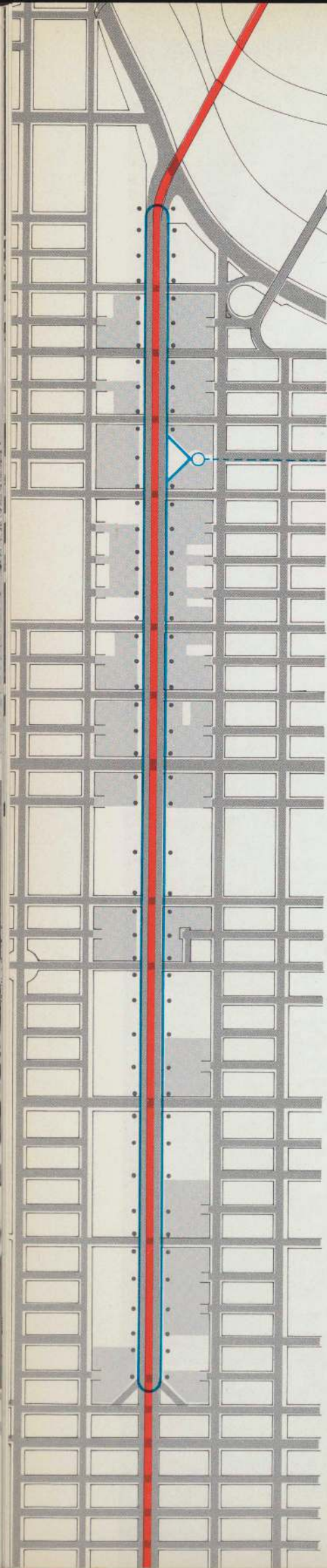
Because the project is linear it can be built in stages that permit people living in the path of construction to be re-housed in completed portions as the vault advances. The vault would also serve as a construction platform so that train service and traffic need not be interrupted. The entire vault and a substantial part of the housing could be put in place in less than two years.

The cost of acquiring the air rights and adjacent property, plus the cost of constructing the vault, is competitive with the total sum that would have to be expended to condemn and clear a comparable land area elsewhere in Harlem. In addition to its other advantages, the vault system provides the possibility for a considerable increase in population density while still creating a substantial amount of new open land.

Building over the railroad tracks would not only turn a serious liability into a major asset, it would also contribute to the renewal of Harlem by opening it to one of New York's most famous streets. This radically new Park Avenue would become the symbol of a new mode of life, as well as a concentrated and self-sustaining nucleus for the renewal of the entire area.
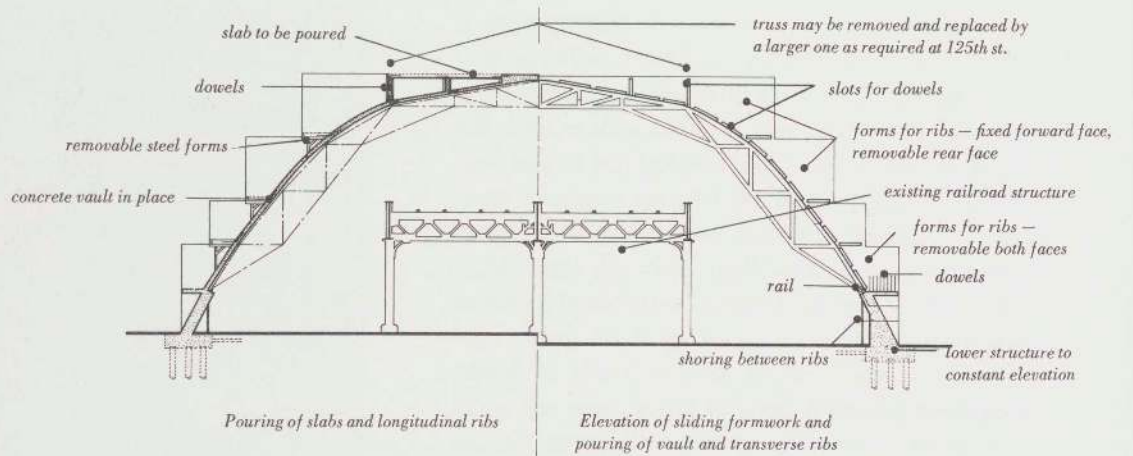
■ *Existing buildings*
■ *New buildings*
■ *New buildings, pedestrians only*
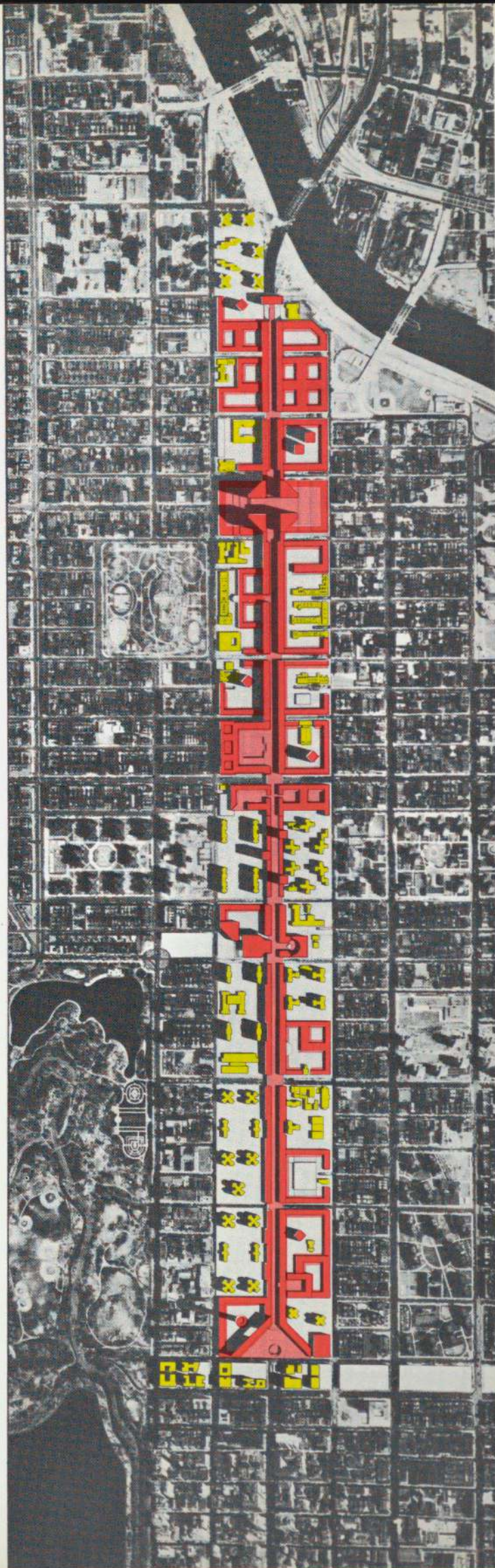
■ Electric bus
■ Parking
■ Automobiles
■ Railroad

slab to be poured

dowels

removable steel forms

concrete vault in place

truss may be removed and replaced by
a larger one as required at 125th st.

slots for dowels

forms for ribs — fixed forward face,
removable rear face

existing railroad structure

forms for ribs —
removable both faces

rail

dowels

shoring between ribs

lower structure to
constant elevation

Pouring of slabs and longitudinal ribs

Elevation of sliding formwork and
pouring of vault and transverse ribs

*Typical section through building complex. Three-story
town houses flank vault at ground level; apartment
blocks rise above them and flank pedestrian boulevard
on top of vault.*
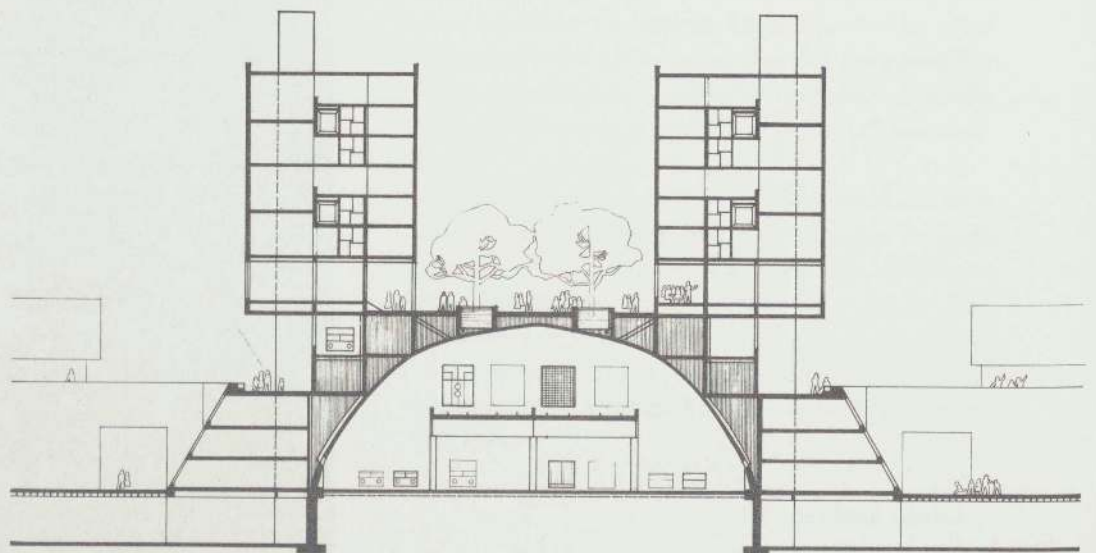
*Typical section through building complex showing
housing construction under the vault and development
of blocks on both sides.*
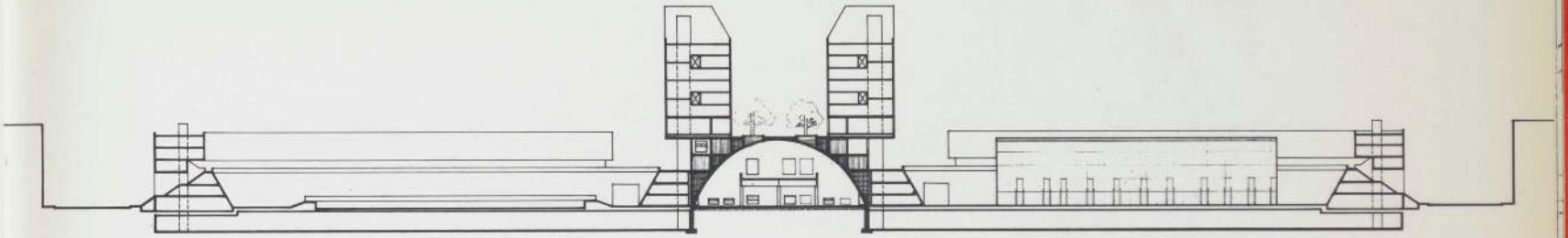
*Section showing electric bus stop and pedestrian
circulation at intersection with crosstown streets.*
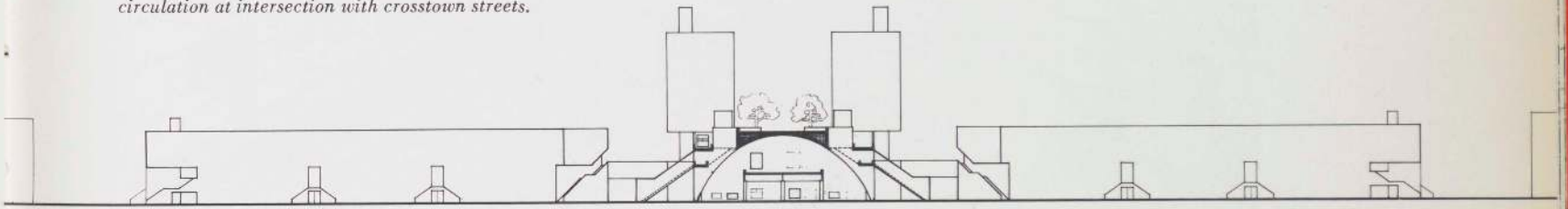
*Section showing new housing in relation to existing
housing projects.*
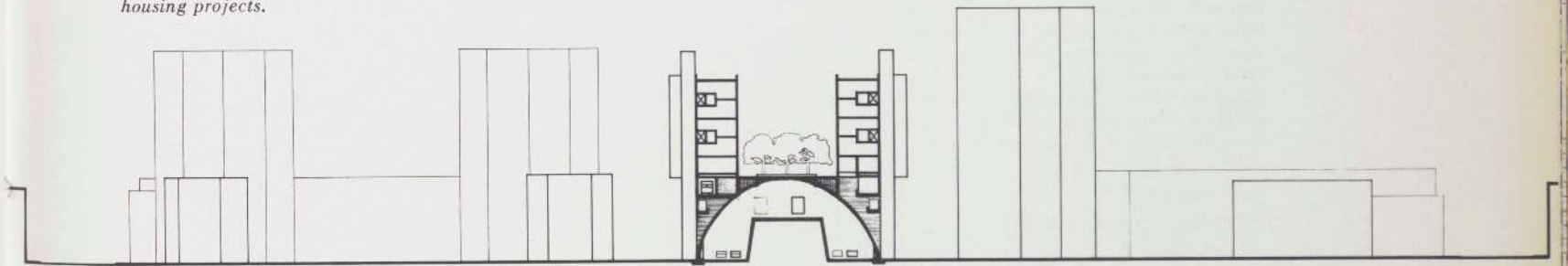
*Section through transportation terminal complex at
125th Street showing main concourse of railway station.
Public facilities of hotel are at left; parking and
bus terminal at right.*
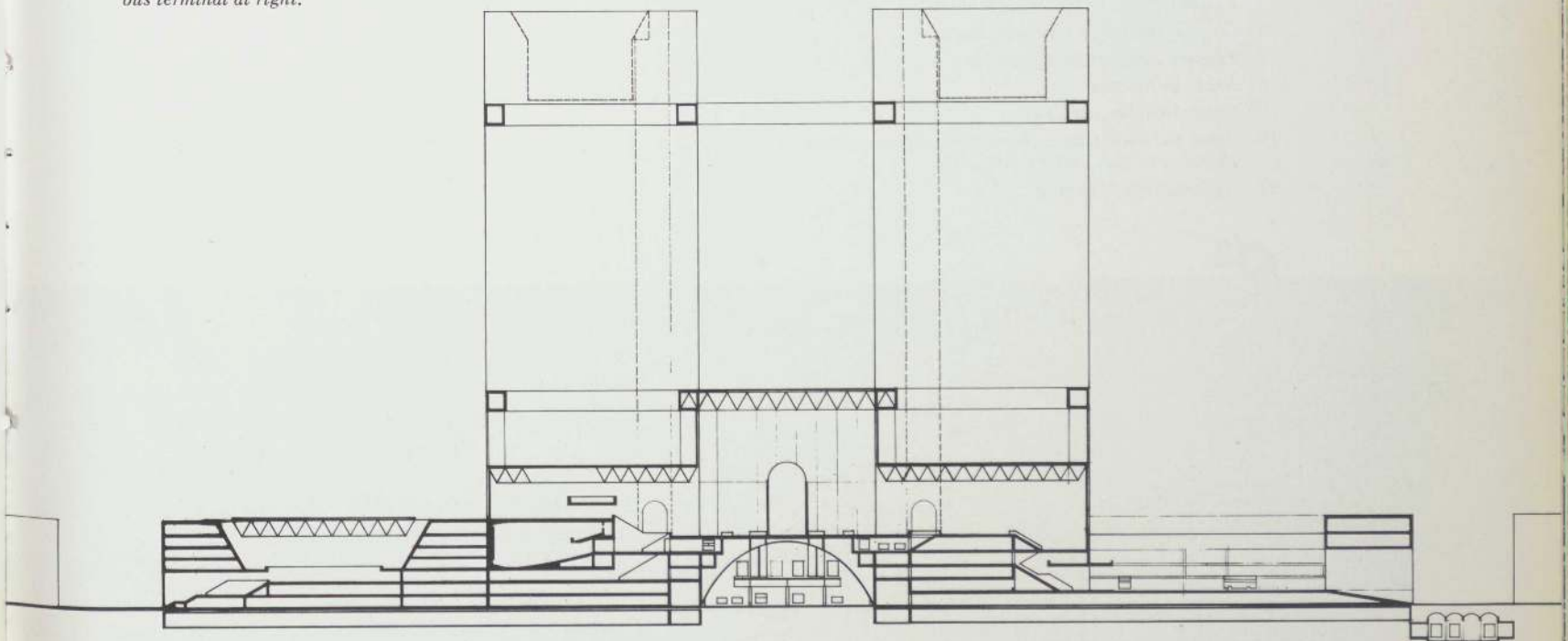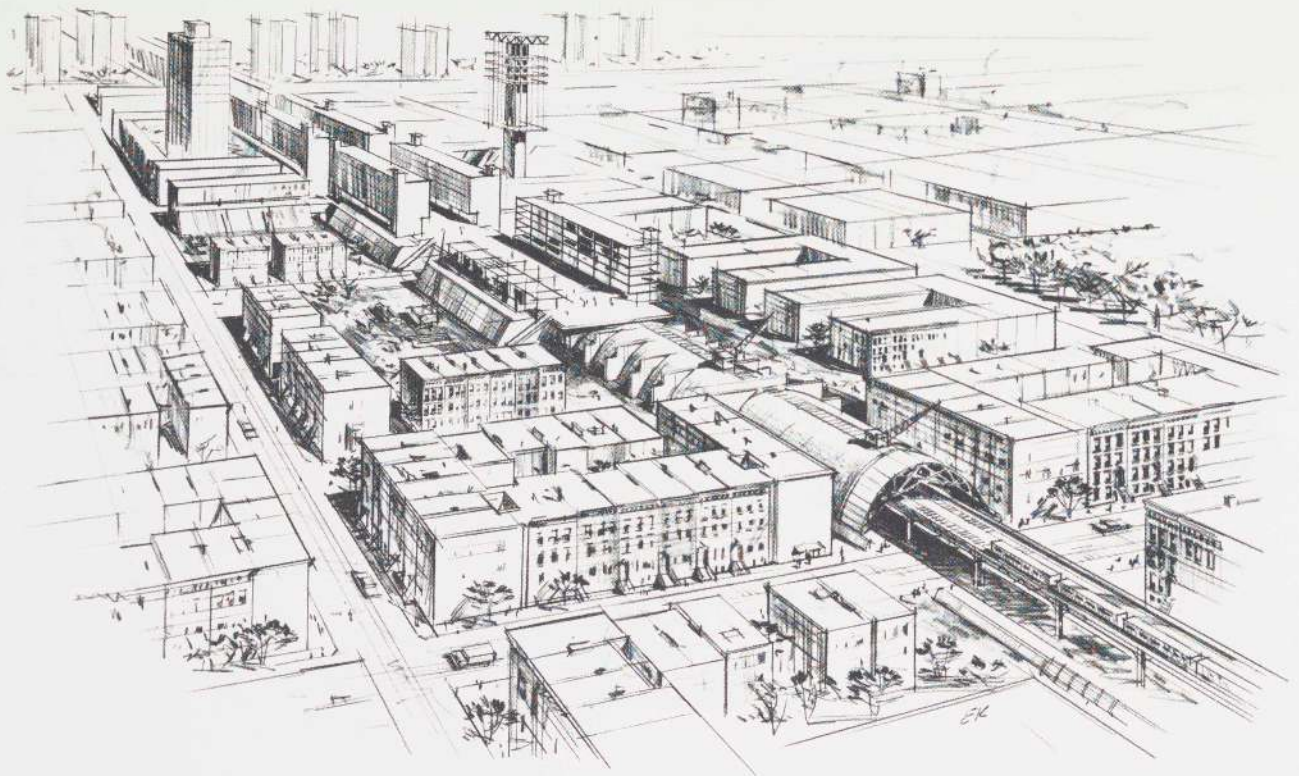
This aerial view shows several stages of construction
being carried forward simultaneously. In the lower
right foreground the vault is being poured; further back
construction is beginning on the apartment blocks
which rise above it; the completed apartments, as well
as high-rise towers and rebuilt blocks flanking the
vault, are visible in the background.

Axonometric view looking west
1   Professional office building
2   Television tower, restaurant above
3   School
4   Town houses
5   Housing
6   Cinema, studios, professional housing
7   Theater, outdoor theater on roof
8   High-rise housing
9   Central market, parking
10 Office and hotel towers, railroad station, bus station,
    shopping center, parking below
11 Administrative building
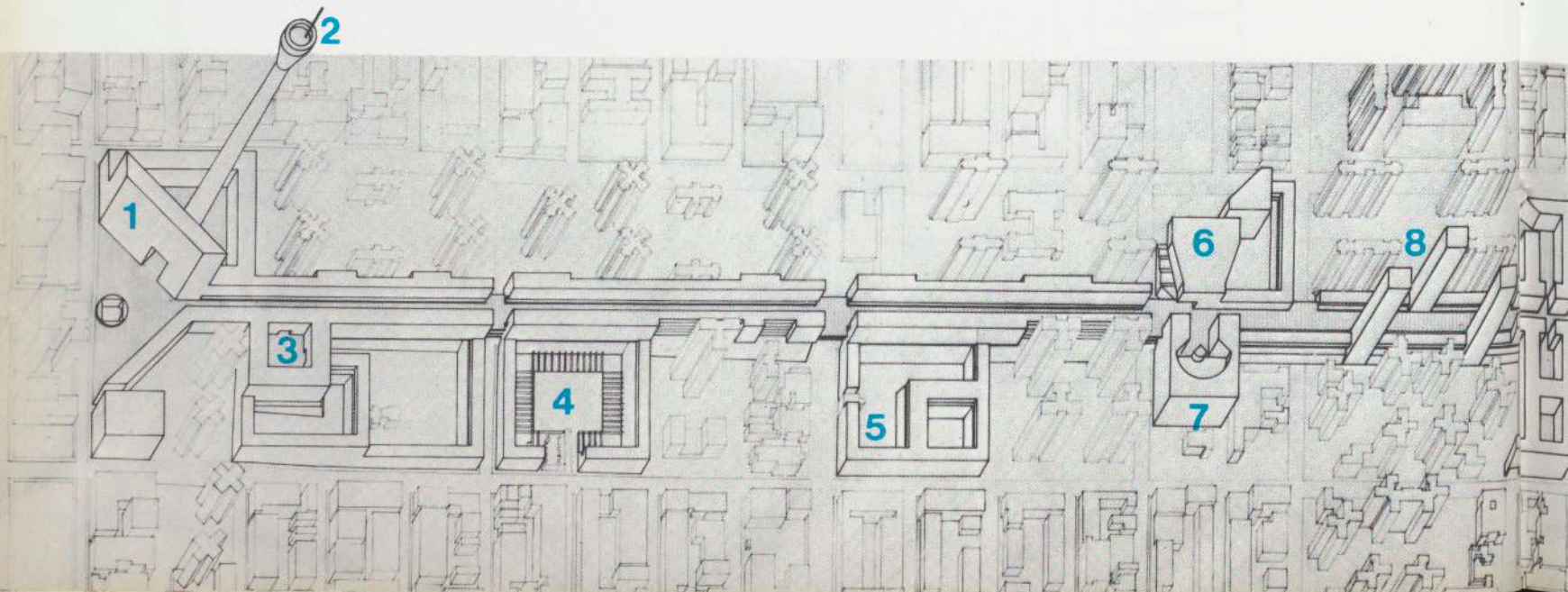
Model shows integration of new structure with existing streets and housing projects. Television tower and observation restaurant in foreground; in background, office towers straddle vault at 125th Street.
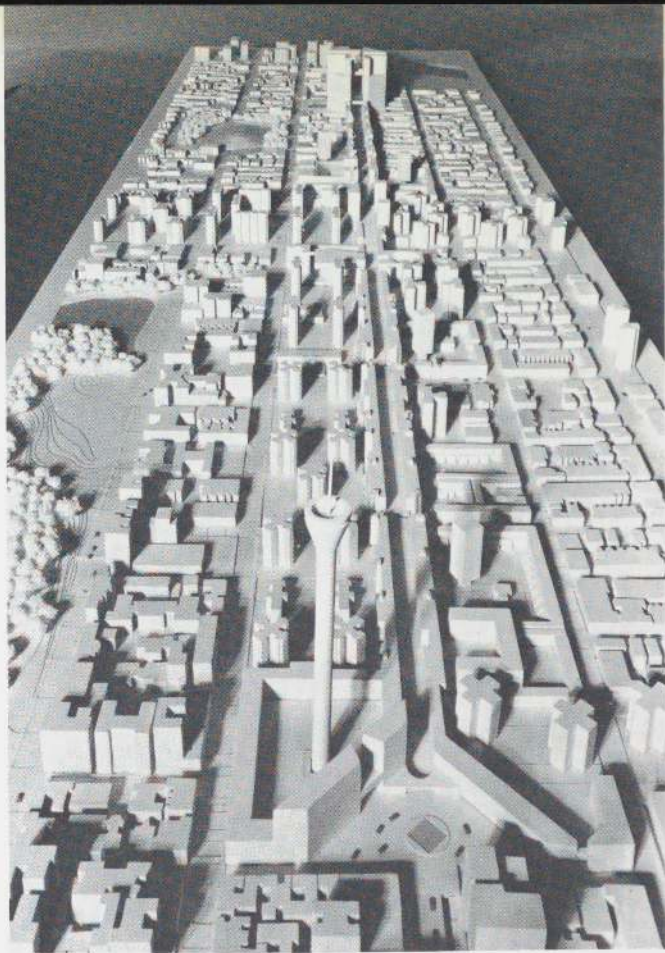
Town-house units flank vault at left, and are continued around newly created city block to enclose pedestrian park and playground.

9 10 11
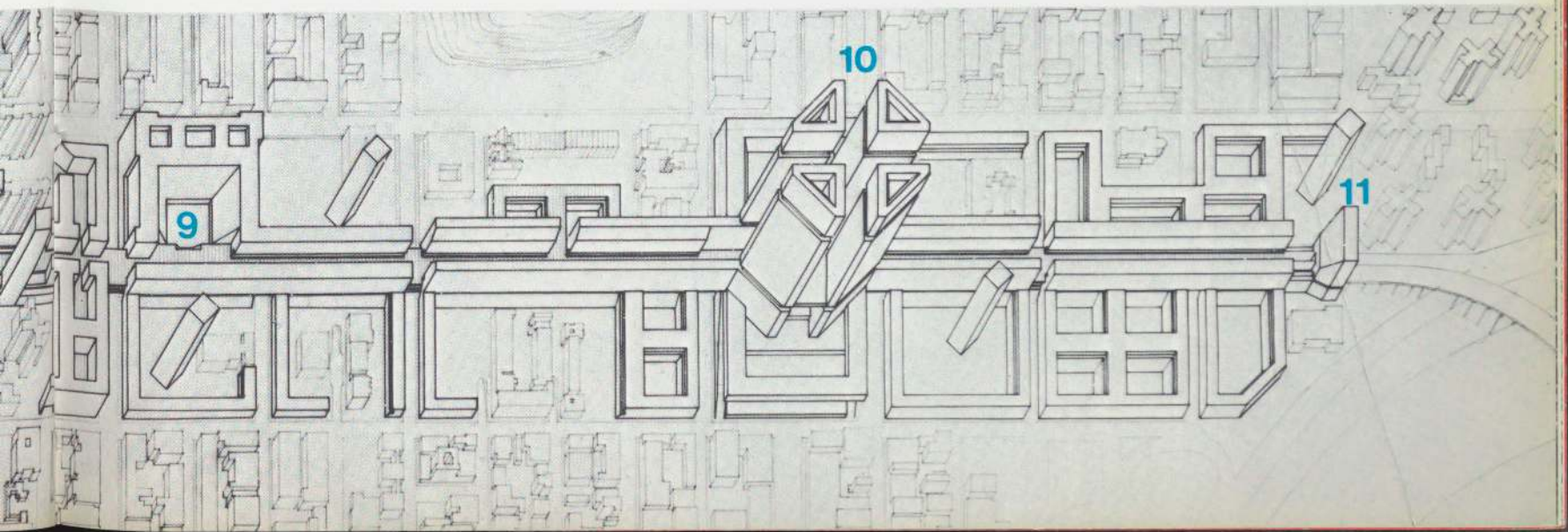
Princeton University

Peter D. Eisenman, Michael Graves;
Assistants: G. Daniel Perry, Stephen Levine, Jay Turnbull,
Thomas C. Pritchard, Russell Swanson

PROBLEM:

How can we make the waterfront both visible and useful, giving it an architectural weight that would relate it to major crosstown streets and lead to the development of new kinds of neighborhood and institutional centers?

Manhattan's extensive waterfront, though occupied by parks as well as piers and highways, has seldom been regarded as a major amenity to be developed for the benefit of the whole city. To do this the waterfront must first be made accessible, and this problem is related to the inadequacy of Manhattan's crosstown transportation facilities. The architects therefore began with the following assumptions:

1. 125th Street is potentially a major crosstown axis. With new mass transit facilities interconnecting with the north-south subway lines, it could serve commuters from New Jersey, Westchester, and the Long Island airports. Increased and diversified use of 125th Street would help to overcome the physical and psychological isolation of Harlem.

2. The western end of the 125th Street axis provides a point, or node, from which waterfront development on the Hudson River could extend north to 155th Street and beyond.

3. The waterfront and the crosstown axis should amplify the existing park system, by connecting with it and introducing additional parks.

4. New centers of building should relate to such existing institutions as Columbia University and The City College of New York. Research laboratories, for example, would be able to draw on the faculties of nearby universities as they do in Cambridge, Massachusetts, and would provide employment for many other people as well.

5. Finally, the architects assumed the new areas should make use of viable aspects of the existing grid plan. At the same time the grid street system should be modified to yield a more varied urban scale.

PROPOSAL:

The project calls for the termination of the 125th Street axis by a public plaza opening onto the Hudson River. The plaza provides the connecting link between adjacent neighborhoods and the other elements of the new project. Largest of these is a two-building structure built over the river and extending thirty blocks north in a straight line. For almost two-thirds of this length the structure stands in the river well away from the shoreline; a third building

along Broadway runs parallel to it and encloses a sixteen-block length of waterfront land developed as a new park. The waterfront itself is new: the railroad tracks are re-routed under the buildings, the land they now occupy is excavated up to the existing embankment, and the Hudson River is thus brought into the park.

The plaza, which opens onto the river, would accommodate a 15,000-seat outdoor concert theater to replace Lewisohn Stadium (destined to be demolished) as well as outdoor art galleries, a museum, and a library. Cafés and restaurants would be sheltered under the existing Riverside Drive viaduct, which crosses the plaza and divides it into outdoor "rooms" of different sizes and shapes.

The southernmost of the two river buildings would accommodate hotels, convention halls, and offices; the northern building would house research and laboratory facilities and large spaces devoted to institutional or academic uses. It also incorporates and conceals a sewage disposal plant now contemplated by the city, the roof in this case being designed as a public arena for minor sports events. At 115th Street a terminal node (corresponding to the plaza) is provided by a large aquarium.

The new building along Broadway would be devoted primarily to housing but would also accommodate shops and offices. This structure is so placed as to provide a view from Broadway over the new park to the water, and the river buildings are elevated so that one can see under them to the Jersey shore.

The new park and its accompanying waterfront would be enclosed by a coherent architectural frame. Sheltered by the river buildings, the water could be used for boating. The recreational advantages of this park are echoed in another feature of the plan: a thirty-foot-wide quay extending from the south end of the plaza all the way down to 110th Street. This promenade over the water would be another kind of park.

An important achievement of this plan is its delineation of different kinds of urban space. By allocating different functions to different levels, continuity of use is maintained. Individual details of the buildings, more developed in this project than in the others, suggest an exhilarating urban architecture.
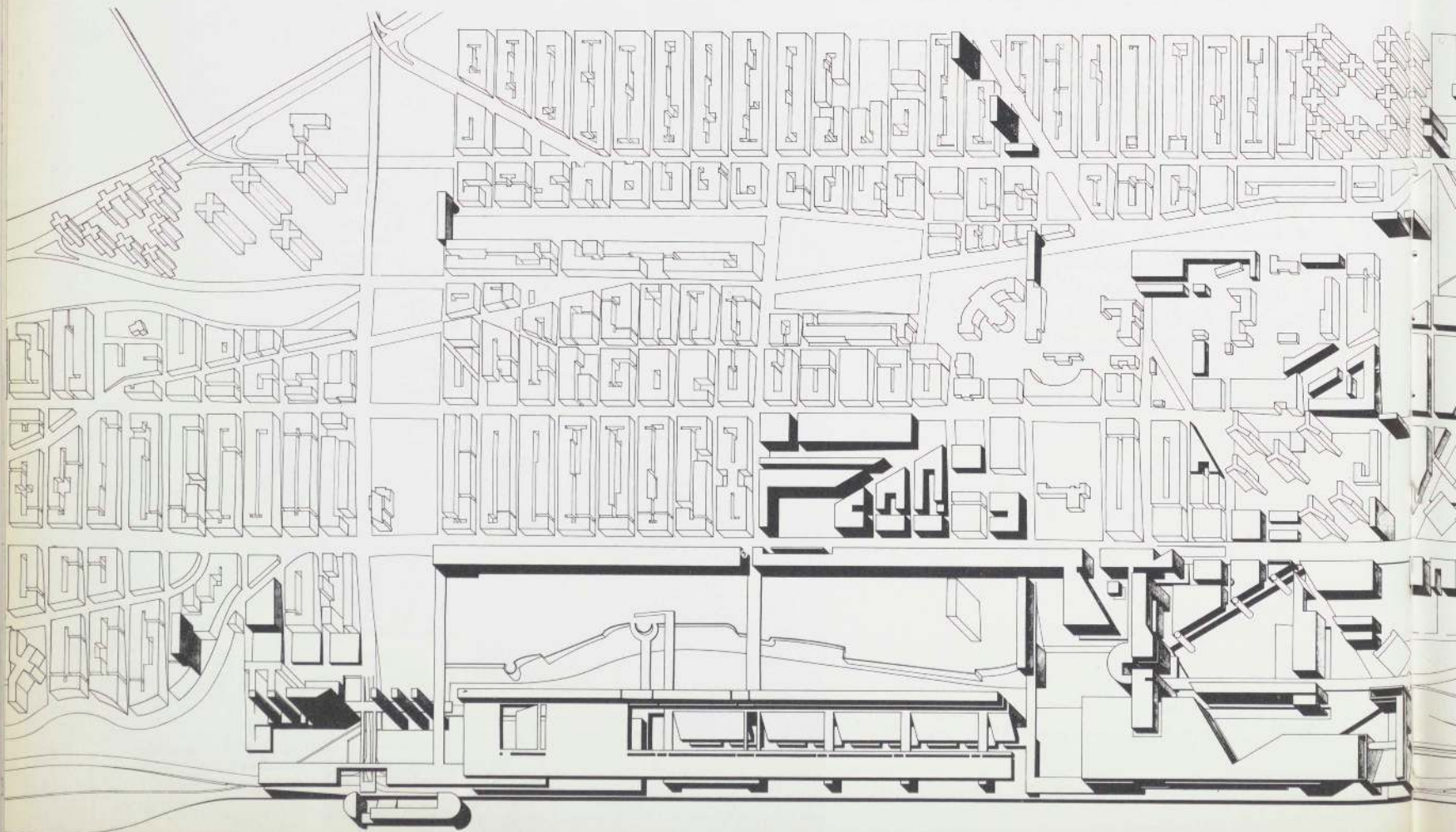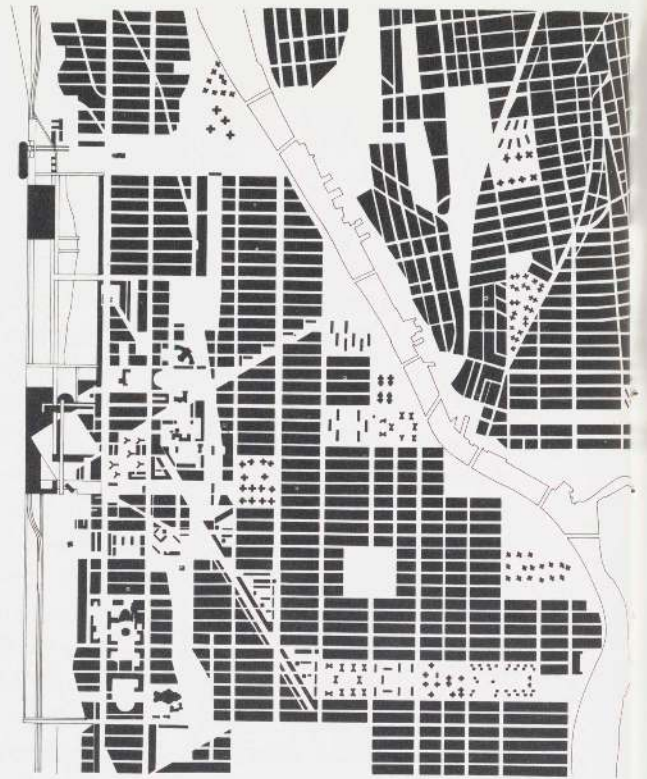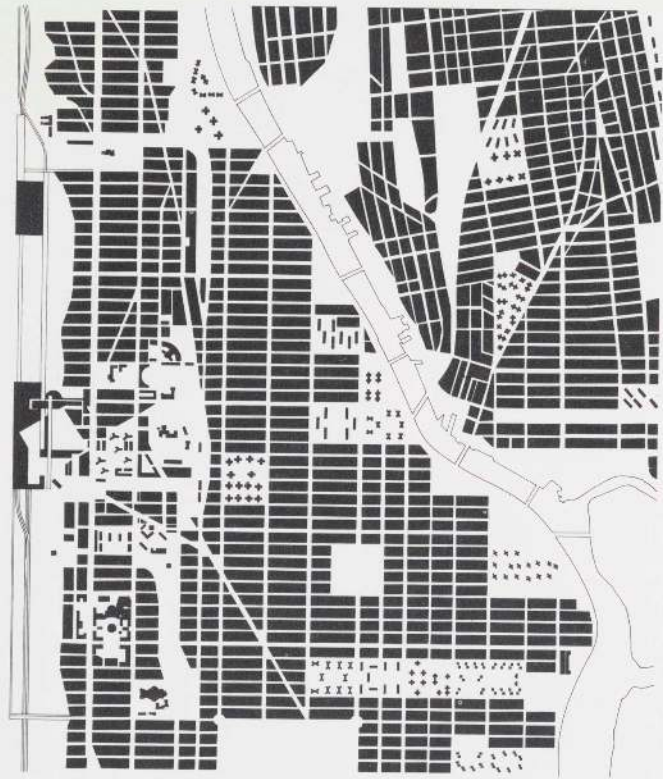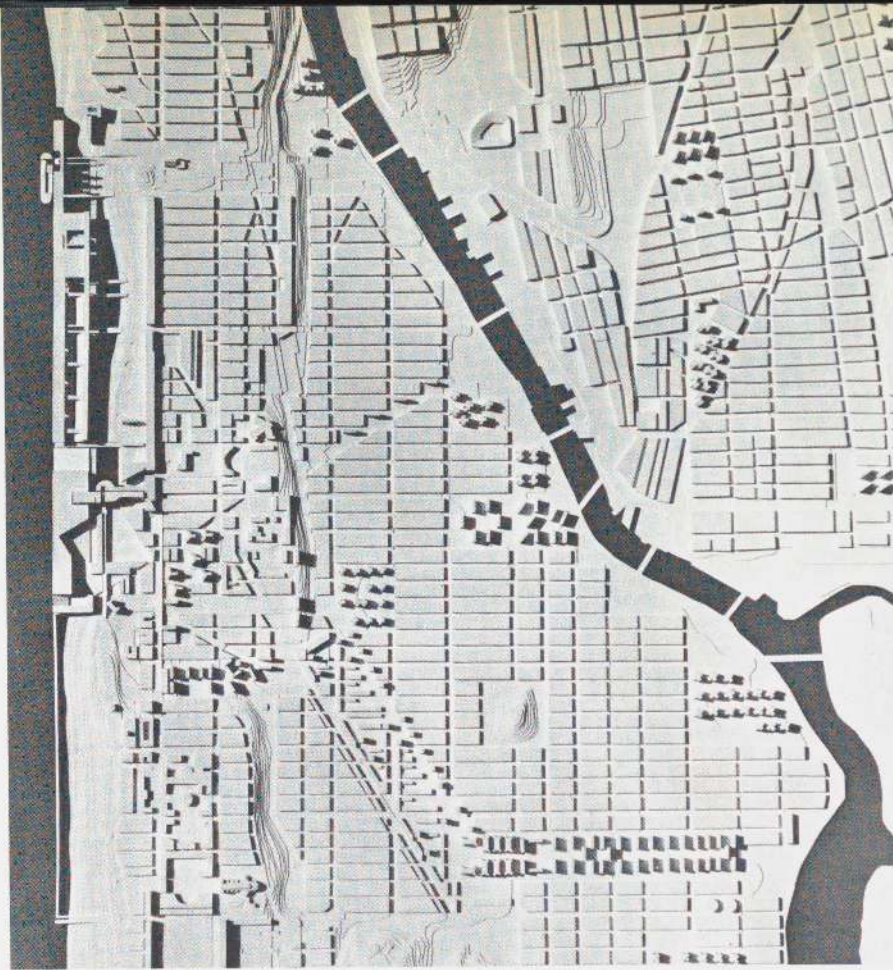
Site Plan

☐ *New buildings*
▨ *Paved pedestrian areas*
▧ *Parks*
▨ *Water*

1   Aquarium
2   Stadium (above sewage disposal plant)
3   Lagoon
4   Park
5   Housing, offices, shopping
6   Research offices
7   Conference and convention center
8   Hotel
9   Public plaza with outdoor stadium, museum, cafés
*10   Pedestrian quay*

Facing page: Plan shows initial phase in development of waterfront at 125th and 155th Streets. Plaza at 125th Street is turned to align with diagonal grid that would eventually connect to the Harlem River at the northeast and Central Park at the south. Adjustment of West Side Highway and railroad tracks provides space for river inlet.

Second phase shows additional buildings and opening up of diagonal axes.

Left: Model shows completed plan with new park fronting on lagoon. Buildings in river are linked to grid pattern with a continuous building on the west side of Broadway. New vehicular and pedestrian connections link existing and proposed facilities.
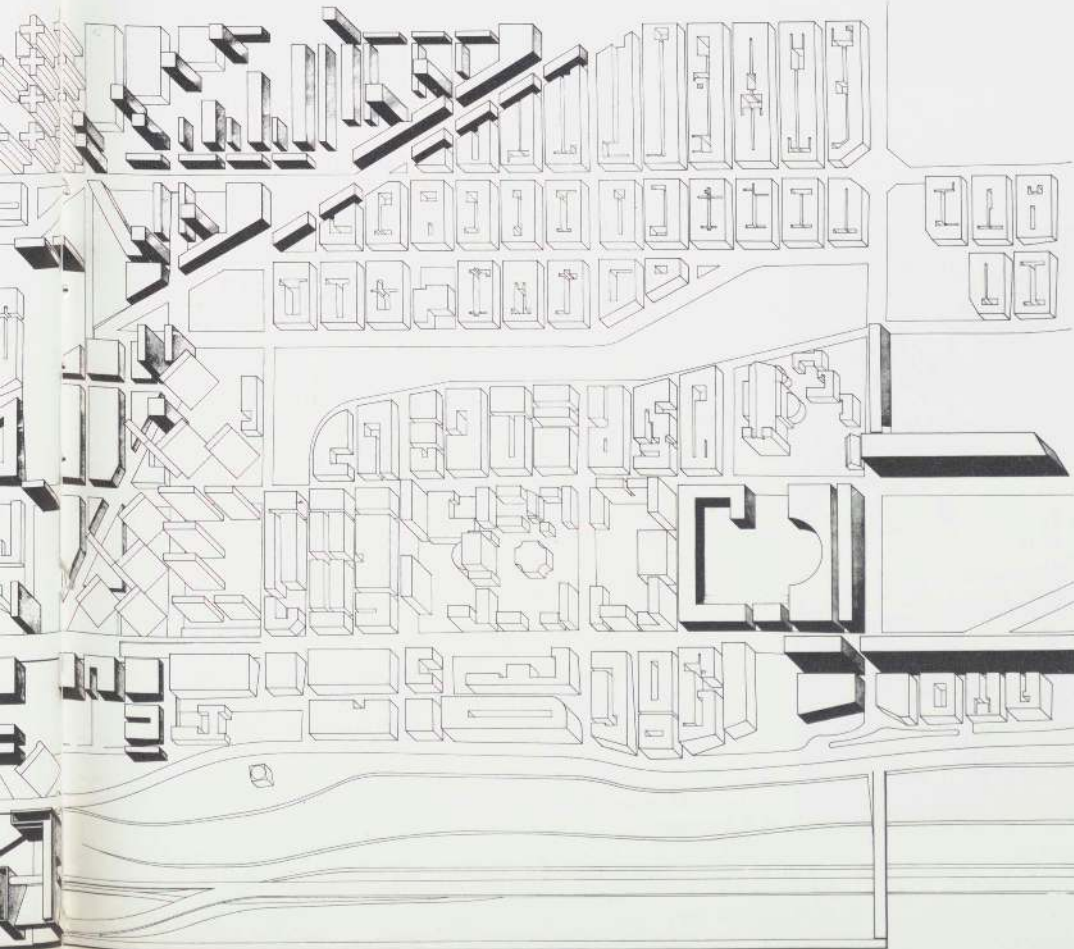
Axonometric view looking east.
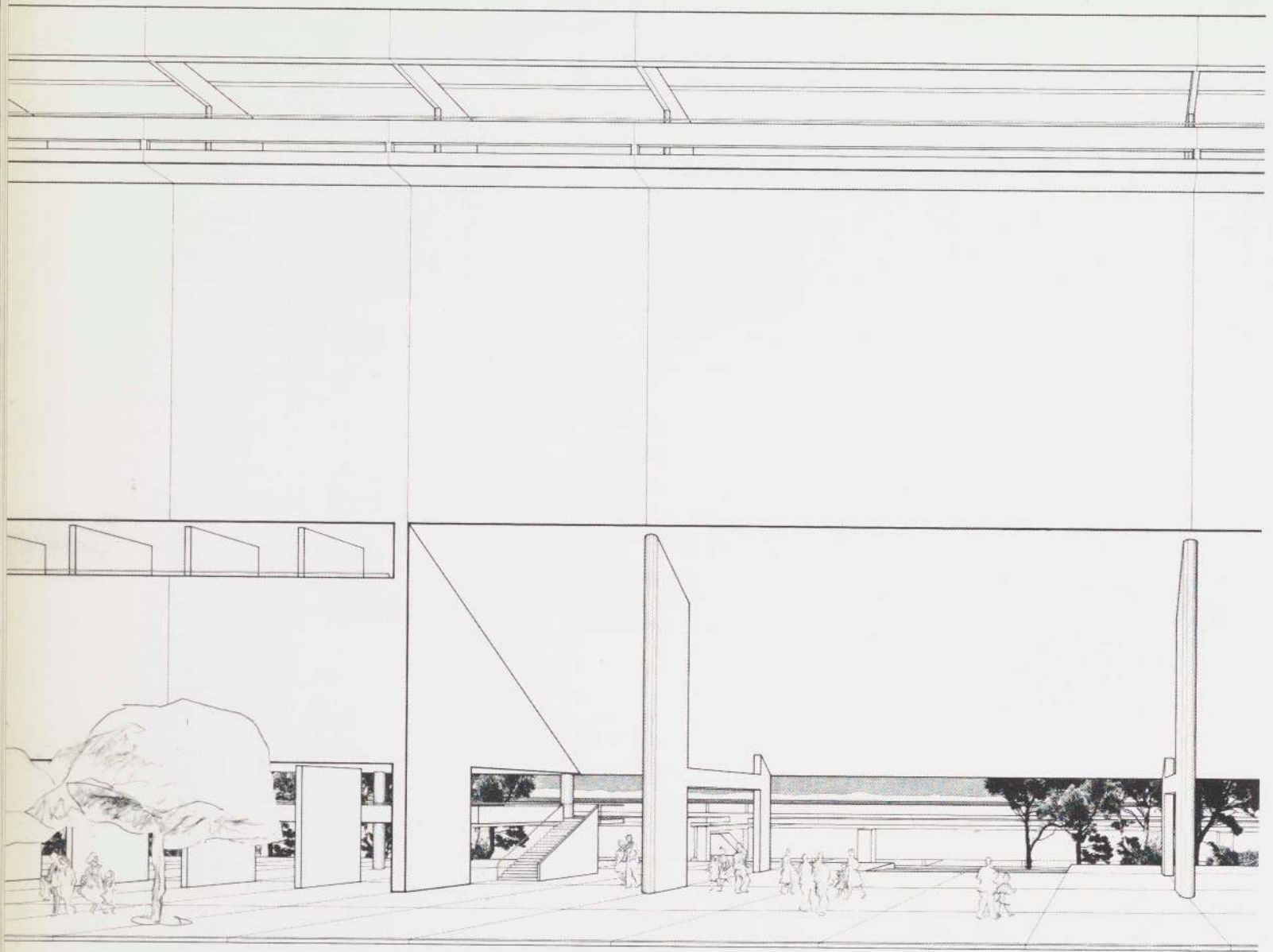
Perspective looking from Broadway through new shopping arcade, with housing above, to the park, lagoon, and river building beyond.
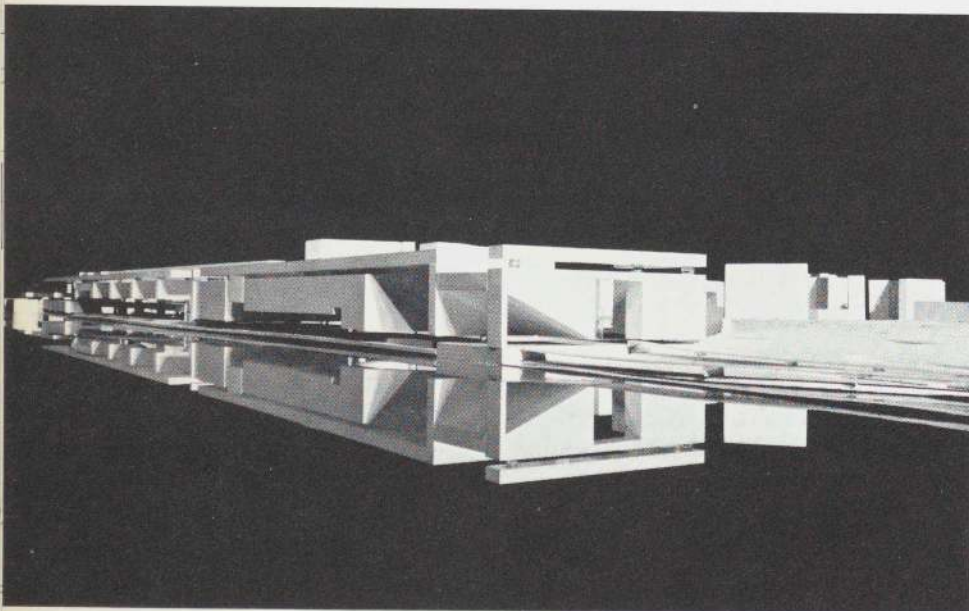
Model shows hotel and convention facilities in foreground, research laboratories and aquarium in left background.
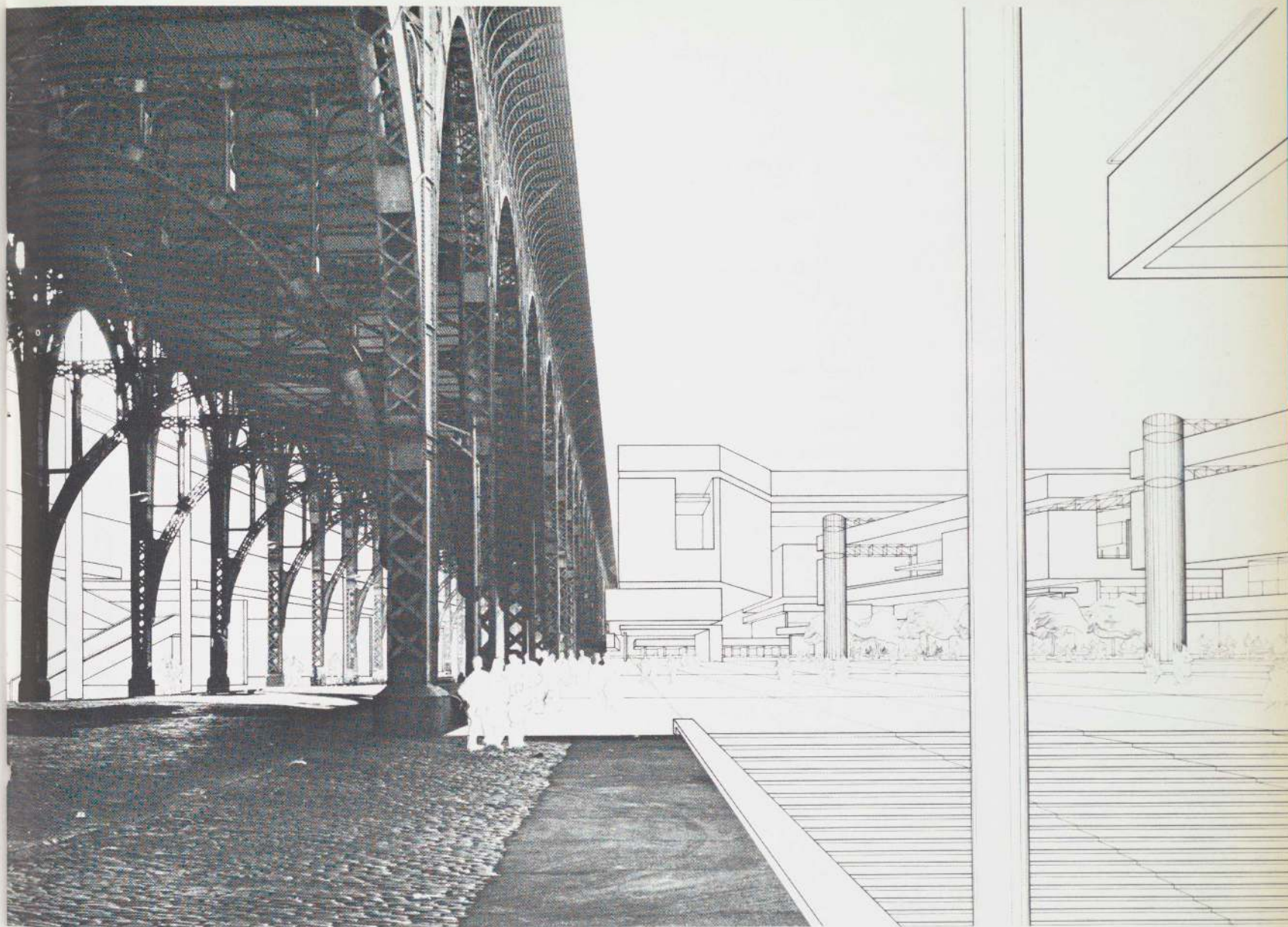
*Perspective looking north in the public plaza at
125th Street. Existing Riverside Drive viaduct is on
the left, and new outdoor stadium in the right
foreground. Shops and cafés are in commercial office
building at the right; university offices and theater
in the rear. Viaduct could be glass-enclosed to
accommodate promenade cafés.*

Massachusetts Institute of Technology

Stanford Anderson, Robert Goodman, Henry A. Millon

PROBLEM:

How can we develop large segments of new land out of relatively under-used, or mis-used, peripheral areas, so that they alter the character of existing neighborhoods by providing important new amenities?

Harlem residents need more opportunities; they need a wider range of choice in employment, in housing, in education, in recreation. The demolition of great parts of the existing city for public housing—whatever its immediate advantages may be—usually forces out of the area just those people who are least able to create their own new opportunities.

Choices must be provided without displacing the population. The existing community must be rehabilitated and its good features preserved. If the existing community is made viable, and new opportunities are created in relation to it, both new and old can then continue to change and develop in a normal piecemeal fashion.

Fortunately, this aim of providing new choices without disrupting the existing community is facilitated by a major resource of the East Harlem-South Bronx area: under-used or mis-used land, especially Randall's Island, Ward's Island, and the railroad yards of the South Bronx. In these areas new living patterns can be encouraged, while in the adjacent parts of the city the emphasis can be on rehabilitation of old buildings as well as remedial action for large units of unsatisfactory public housing.

The physical rejuvenation of the city should be regarded as part of the larger process of positive social change. For example, the development of new building elements and construction technique envisioned in this project could support local research activities, job training, and new local industry.

PROPOSAL:

Randall's and Ward's Islands and the southern tip of the Bronx should be developed. Land fill operations already undertaken by the Triborough Bridge Authority should be part of a consistent plan: the two islands should be connected to each other and to Manhattan.

The old North Channel (Bronx Kill), now unused and almost filled in, should be straightened out and widened to connect the Harlem River to the East River.

Earth dams several blocks wide at 116th Street, 101st Street, and 90th Street would allow easy access to new neighborhoods around two new lakes, one of them about 80 acres in extent.

Both bodies of water can easily be purified for boating and swimming; the surrounding shoreline, landscaped and equipped with marinas and waterfront restaurants, could become one of the city's major recreation areas. Earth required for the dams can be excavated from the present railroad yard site in the Bronx, thereby creating a third new lake in that section and a comparable series of developments.

Reshaping of the land would begin with the cutting of the North Channel. At the same time construction would begin on new subways and the relocation of certain parts of the East River Drive and the Major Deegan Expressway. When the channel has been completed the earth dams can be put in place. Construction of new buildings would begin in the areas closest to these connections with Manhattan.

During the same interval, the edge of the Manhattan grid as it approaches the East River would gradually be transformed by new areas of multiple-use buildings, parks, and recreational facilities.

When completed the whole project would have made accessible for development some 510 acres, of which 270 acres would be new land accommodating 14,000 housing units. It would also yield about 187 acres of purified water in its three lakes. The total cost for earth moving, changing roads, and water purification would be approximately $150,000,000 —or six days of United States expenditure in Vietnam during 1966.

This proposal necessarily deals with broadly defined goals rather than specific detail. It considers familiar problems in a new light, because it introduces a new factor: the manipulation of the city's geographical configuration as part of the renewal process.
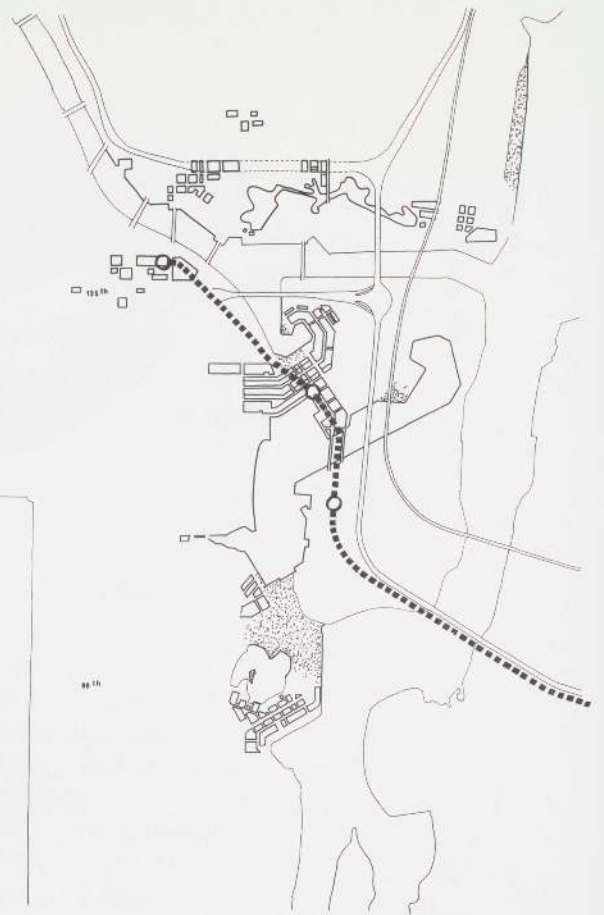
Site plan

- ■ *East River; North Channel; Harlem River*
- ■ *Lakes for boating and swimming*
- ■ *Parks*
- ■ *Paved areas*
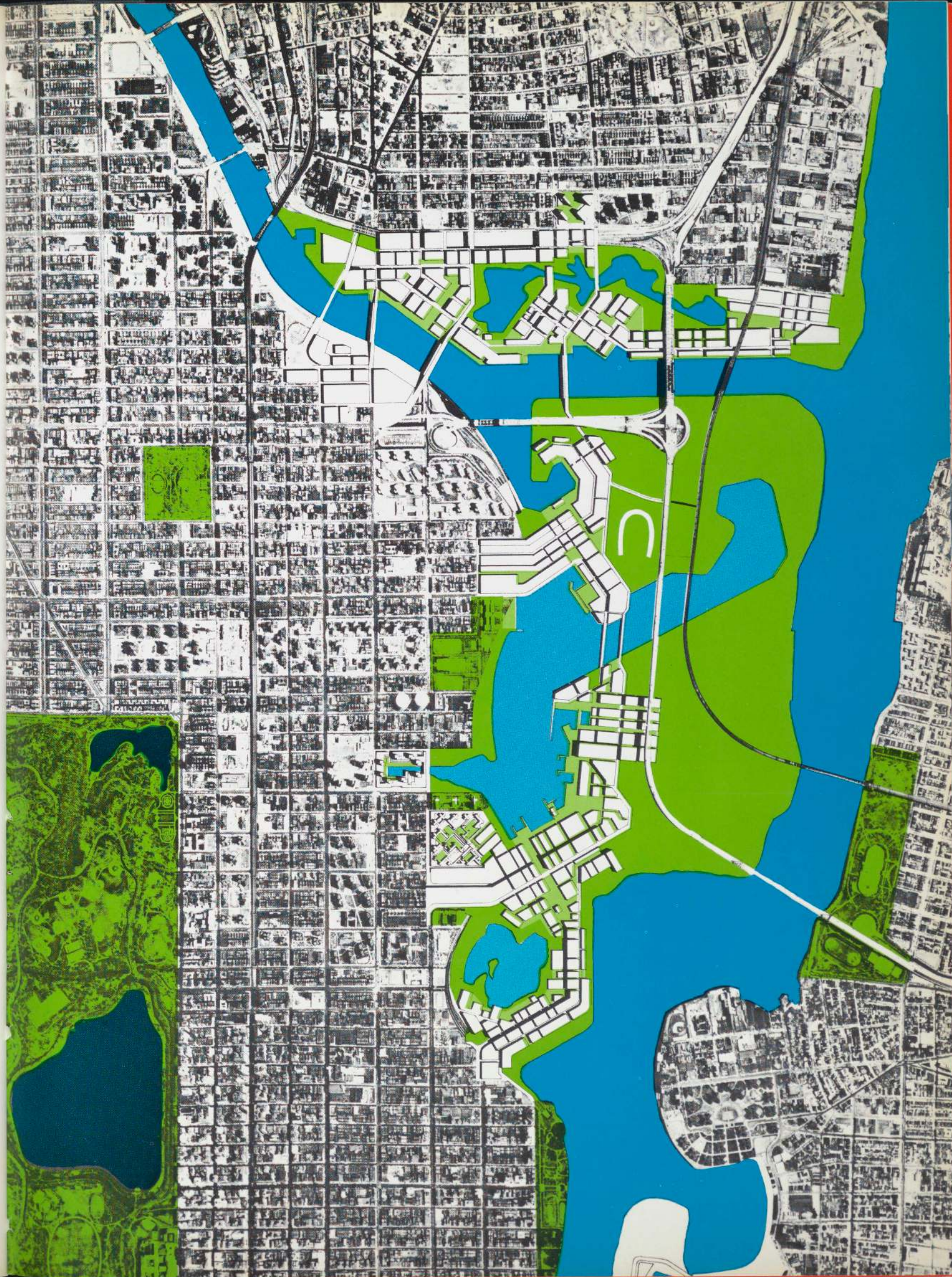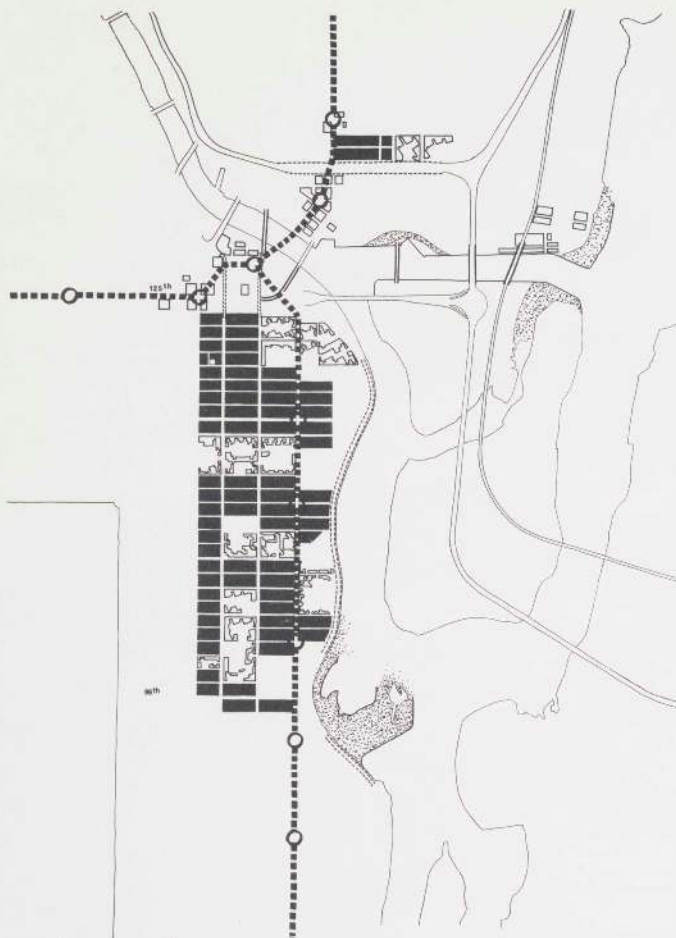
Stage 1

Stage 2

Stage 3

These three diagrams illustrate successive stages in the linking of Randall's and Ward's Islands to Manhattan.

Stage 1: Channel is cut between Bronx and Randall's Island; construction begins on new subways and the depressing of parts of the East Side Drive and Major Deegan Expressway. Earth fill begins in dotted areas. Black rectangles indicate blocks scheduled for rehabilitation. Irregular shapes among these blocks are new residential, commercial, and institutional facilities at ground level in existing public housing developments.

Stage 2: Construction of earth dams from Manhattan to the Islands with fill provided by excavation of a lake in the South Bronx. Work continues on subways, rehabilitation, and new construction in Harlem and the South Bronx. Construction of first buildings begins on man-made land near bridges.

Stage 3: All earth work and major public investment completed. Gradual extension of new built-up areas. Piecemeal intensification of commercial and institutional activities along 125th Street and in the Harlem Triangle is a continuing aspect of the proposal.
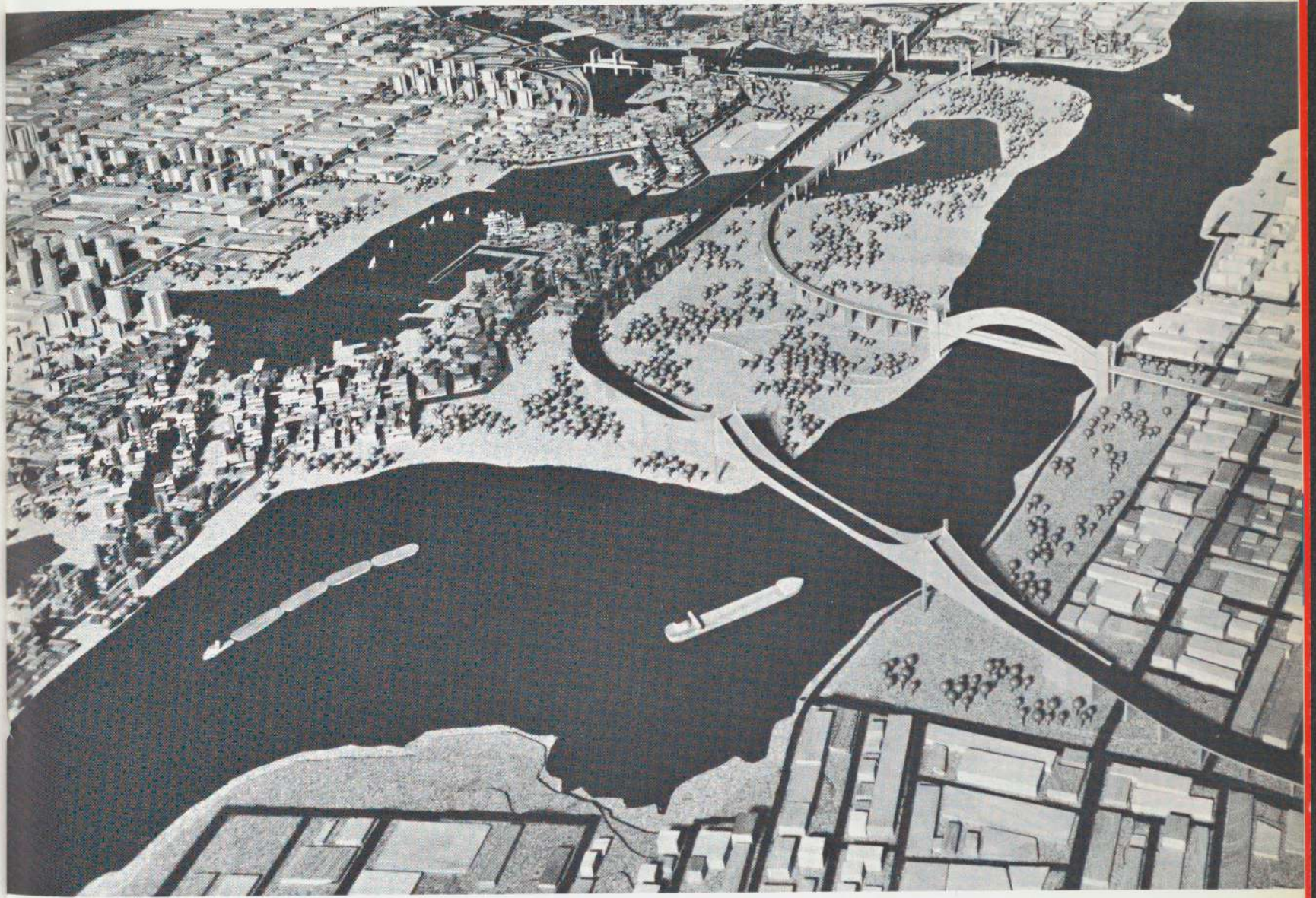
Model of view to the northwest shows development of housing and other facilities around new lakes in Manhattan and the South Bronx.
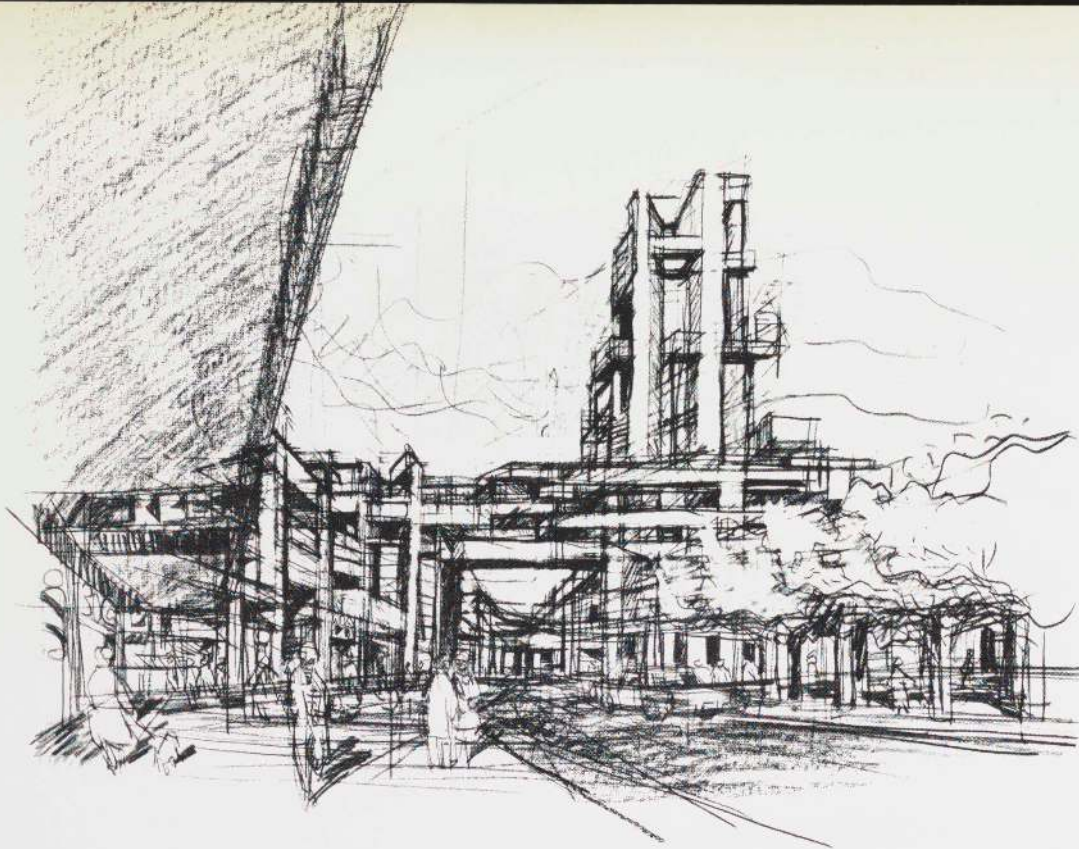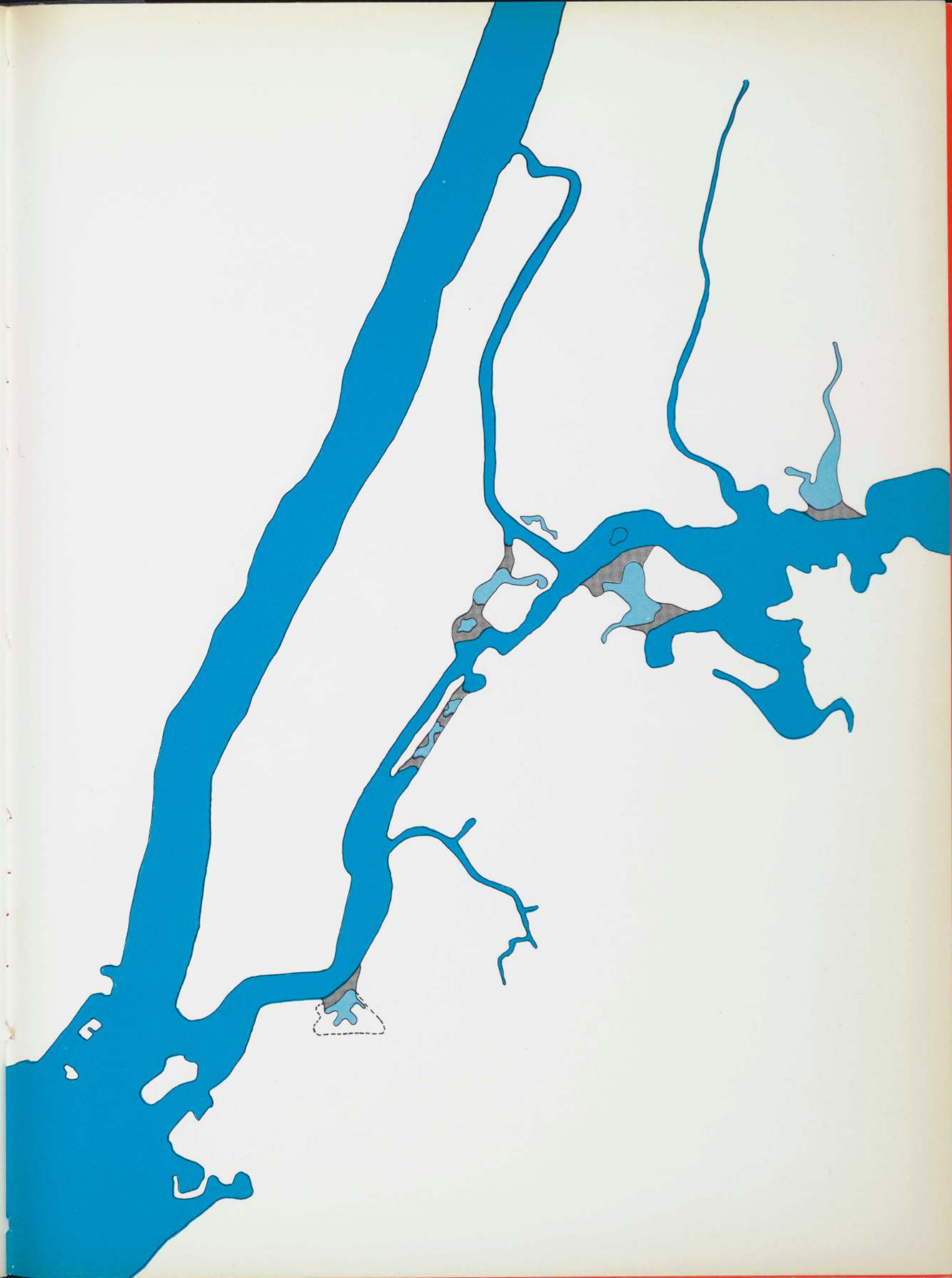
Proposed new housing developments would relate
closely to waterfront areas and would preserve open
space within the massing of the buildings themselves.
In drawing below, building units bridge a street.
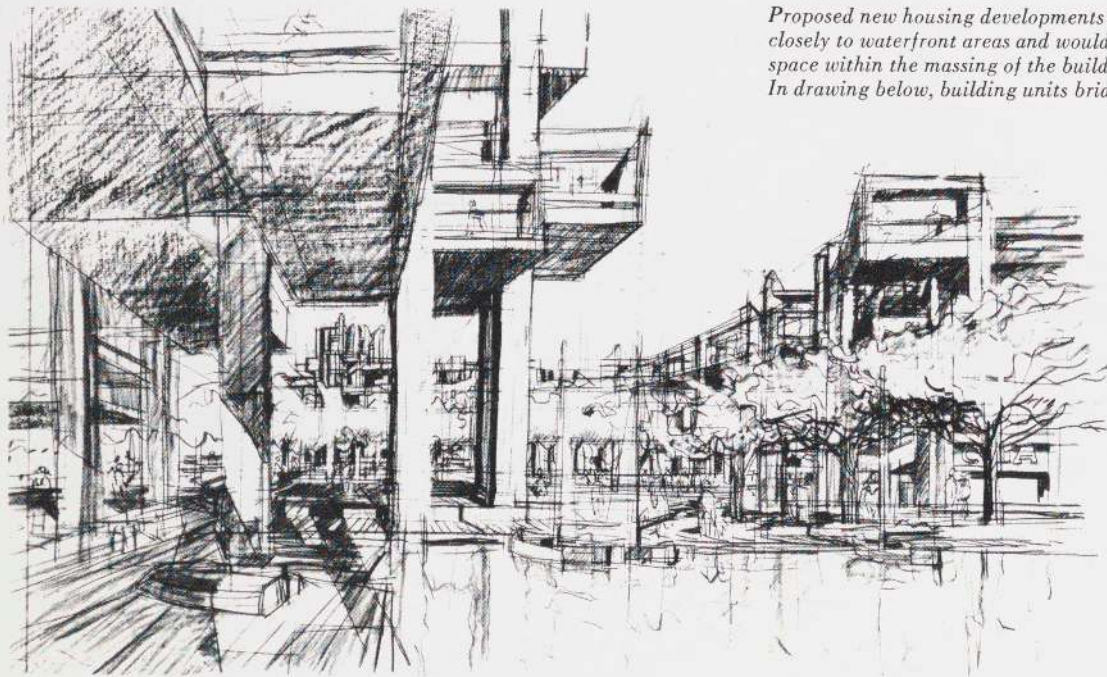
Land fill operations could be carried out at many sites
around New York City to reclaim areas presently
under-used or mis-used. On this map Westchester Creek
is shown converted into a lake by a single land fill
operation. Riker's Island is connected to Queens by two
land masses, to produce a lake somewhat larger than
that yielded by the Ward's and Randall's Island plan.
Welfare Island is connected to Queens by three
land masses plus additional contouring to produce two
lakes, and a single land mass produces another lake by
sealing off the Brooklyn Navy Yard from the East River.

- Filled land
- New lakes with purified water
- Rivers

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