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The Second Regional Plan

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THE SECOND REGIONAL PLAN

a draft for discussion

November 1968

Regional Plan Association

REGIONAL PLAN ASSOCIATION
230 West 41st Street
New York, N. Y. 10036

FOREWORD

This Second Regional Plan draft has grown out of a decade's research and public discussion.

This draft will be discussed at the 23rd annual Regional Plan Conference, November 19, 1968 and at meetings for each county of the Study Area open to everyone. These county meetings will be conducted jointly by the Metropolitan Regional Council, a voluntary association of chief elected officials of the counties and major cities, and Regional Plan Association. The Ford Foundation is contributing to the financing.

The detailed research that stands behind the Plan is set out in a series of volumes beginning with a study carried out for the Association in the late 1950's by a Harvard University research group, published in ten volumes:

Anatomy of a Metropolis, by Edgar M. Hoover and Raymond Vernon, 1959, 349 pp., 16 charts, 55 tables, appendix

1400 Governments, by Robert C. Wood, 1961, 267 pp., 12 charts, 4 tables, appendix

Freight and the Metropolis, by Benjamin Chinitz, 1960, 211 pp., 16 charts, 32 tables, appendix

Made in New York, by Roy B. Helfgott, W. Eric Gustafson and James M. Hund, 1959, 388 pp., 59 tables, 8 charts, appendix

Metropolis 1985, by Raymond Vernon, 1960, 252 pp., 20 charts, 23 tables, appendix

Money Metropolis, by Sidney M. Robbins and Nestor E. Terlickyj, 1960, 294 pp., 36 tables, 25 charts, appendix

The Newcomers, by Oscar Handlin, 1959, 171 pp., 31 tables, 1 chart, appendix

One Tenth of a Nation, by Robert M. Lichtenberg, 1960, 326 pp., 10 charts, 52 tables, appendix

Projection of a Metropolis, by Barbara Berman, Benjamin Chinitz and Edgar M. Hoover, 1960, 119 pp., tables

Wages in the Metropolis, by Martin Segal, 1960, 211 pp., 33 tables, appendix

Staff research by the Association has been published in the following major studies:

Park, Recreation and Open Space Study

The Law of Open Space; Legal Aspects of Acquiring or Otherwise Preserving Open Space in the Tri-State Metropolitan Region, by Shirley Adelson Siegel, 1960, 72 pp.

The Dynamics of Park Demand; Present and Future Demand for Recreation and Open Space in the Tri-State New York Metropolitan Region and the Nation, by Marion Clawson, 1960, 39 pp., 4 tables, 11 charts

Nature in the Metropolis; Conservation in the Tri-State New York Metropolitan Region, by William A. Niering, 1960, 64 pp.

The Race for Open Space; Final Report of the Park, Recreation and Open Space Project, 1960, 95 pp., 24 tables, 6 charts, appendix

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The Area under study for The Second Regional Plan: 12,750 square miles, including NewYork City, 23 other counties in New York and New Jersey, and 8 regional planning areas in Connecticut (where there are no counties). Regional Plan Association's earlier studies dealt with an area of only 6,900 square miles, which conforms much more closely to the Association's definition of a metropolitan region — a single economy with the transportation system, land values and type of business enterprises that choose to locate in each part strongly affected by the rest of the Region. The Study Area goes beyond the Region, as defined this way, in order to test the possibility that the population and job growth that might come to this area would enlarge the present Region. The term Region is used in the Plan where the area referred to is not precise. Where specific numbers are used, they apply to the whole Study Area.

map 1

I. INTRODUCTION AND SUMMARY

A plan for a region

This is a plan for what man will build and reserve unbuilt over the coming generation--homes and apartments, factories and offices, highways and railroads, schools and colleges, stores, museums, theatres, parks.

Where people build, what they build, how they build affect all of the urban problems that fill today's newspapers: opportunities for the poor, relations between Negroes and whites, smog, traffic jams. They also affect the abiding issues that do not make headlines: man's relationship to nature, conditions that promote a good society, the form of a great civilization.

So the plan that begins with buildings also gets into questions of costs and values, taxes and government, welfare and recreation, jobs and health care.

Faced with the daily tensions of urban areas related to poverty and race, The Second Regional Plan is shaped to help resolve them. But recognizing, also, the steep climb in income that this economy could provide for everyone if recent economic trends can be continued and the prosperity widely distributed, the Plan also concentrates on arranging the activities of the Region to best allow people to enjoy their new wealth and leisure and use them to genuinely enrich their lives. In seeking the best arrangement of what is built for the New York Metropolitan Region, the Plan paradoxically addresses both the needs of poverty and the tremendous potential of wealth.

The Region of this Plan consists of New York City and more than 12,000 square miles around it in New Jersey, New York and Connecticut (Map 1). The area was chosen because its parts are closely related in jobs, housing and transportation. (The outlying parts, not yet closely related, may become so during the Plan's life.)

A firm locating a plant or office first decides to locate it somewhere in the Region and then looks for the best place within the Region. So the Region is almost a single economy.

Similarly, a person moving his family to a job in the Region is likely to look in any of dozens of towns or villages--even several counties--for the right place to live. So it is almost a single housing market as well.

The price of a piece of land, then, is related to the value of land throughout the Region, and major highways are located as part of a regional system. In these and other ways, the Region is a unified place and must be planned as a whole.

In different ways, New York City must be planned as a unit, each county in the Region must plan itself and each municipality. The Second Regional Plan does not replace the plans of any of these areas. It provides a view of what is happening and could happen all around them, allowing each to plan more realistically for itself.

This Plan concentrates, therefore, on those activities that affect more than one local area, issues on which only a wider view can assure solutions that best satisfy the needs of all the people of this Region.

Public concerns that launched the Plan

The Second Regional Plan was begun when it became clear that large numbers of people were dissatisfied with the prospects of the New York Metropolitan Region of the future. Through meetings, conversations and a formal public response project involving 5,600 volunteers, Goals for the Region, Regional Plan Association identified eight major concerns:

1. Uncontrolled urbanization: the swift spread of building without saving enough green space. A general sense (expressed by a significant minority) of too many people, too crowded together with too many more to come.

2. A segregated society: the growing separation of rich and poor, Negro and white. The movement continues of white, middle- and upper-income families from the older cities to the suburbs. Unskilled unemployed--mainly Negroes and Puerto Ricans--fill almost every housing unit left by the fleeing middle class. Newark's Negro-Puerto Rican population is about 60 percent, New York City's about 30 percent and both percentages are growing rapidly. Outside the Core (Map 1) and a handful of older cities beyond it, the percentage of Negroes and Puerto Ricans is only 7 percent and growing very little.

3. Lengthening work trips: the growing separation of worker and workplace. Many unskilled jobs are moving out but housing is unavailable outside the older cities for unskilled workers; increasing white-collar jobs are in the center while white-collar workers move farther from the center.

4. Inadequate shelter: the tight housing market, low rate of replacement of obsolete housing and limited choice of types of new housing even for middle-income families with children. One cause is the zoning by suburban governments, almost uniformly requiring one-family houses on very large lots. One result is that about 1 million people still live in old-law tenements, declared inadequate in 1901.

5. Few urban advantages: the lack of big city advantages for the 10 million people in the Region beyond convenient range of the Region's Core (Map 1). Most of the future population is likely to live beyond this range, also. For example, only a small minority outside the Core is served by hospitals large enough to provide a broad range of medical skills. High quality library services, adult education, museums, theatres and professional sports are very limited outside the Core compared to large cities elsewhere in the country with many fewer people. And for almost all trips, there is no alternative to driving.

6. Low transportation standards: extremely low standards of transportation in most parts of the Region: subways overcrowded, slow, noisy, uncomfortable, infrequent service off-peak; public transportation non-existent in most places; highways congested, local traffic jams in most of the Region. And now traffic jams in the sky, too.

7. Lack of community focus in many parts of the Region.

8. A general tawdriness about what is built; a system of development that encourages mediocre design, from the individual building to the

regional pattern, and an indifference to natural beauty and functioning of nature.

And on the horizon. These problems already are evident. Without any effort to combat them, they would get worse and they would affect far more people.

They would get worse if present trends continue because:

* Population will be rising by 60 percent between 1965 and 2000 and, with rapidly rising incomes, demand for most regional facilities will rise even faster--automobiles and miles driven will go up by about 85 percent, college places by 260 percent, park use by 175 percent--assuring slipshod response if there is no advance consideration of how the demands should be handled.

* The economy has been making a sharp turn from factory jobs which favor spread development to office and service jobs, which often do better in compact urban centers, but plans for future development have scarcely responded to this change.

* The band of spread city--spread and scattered development--wrapped around the Core and older suburbs would cover more land between 1965 and 2000 for the additional 11 million people expected than all the land now urbanized in the Study Area on which 19 million live.

* The islands of the poor and black would enlarge to continents, diminishing the hope for one society.

The problems would affect more people in two ways:

* There will not be enough room in the cities and older suburbs for the children of those who live there. So the city lover, contemptuously dismissing suburban inadequacies as fitting punishment for those who left the city, will find that those inadequacies are the lot of his children. (If all the children of today's 8 million New York City residents remained to live in the City, the population would be 12½ million by 2000, surely unnecessarily crowded.) Similarly, the Scarsdale or Great Neck, Ridgewood or Tenafly residents who feel they have it made--having both the opportunities of the City and the pleasures of a suburban community, must recognize that the older suburbs have no room for their children either, and the new areas are not being built to that mold.

* Fewer city residents would find it convenient to reach large outlying parks like Great Piece Meadows or Bear Mountain because the added population will have filled in between the cities and the parks. At the same time, smaller percentages of non-city residents would find it convenient to get to Manhattan. And there would be no substitute for either outlying regional parks or for Manhattan's opportunities.

Programs to overcome these concerns

To turn the trends now causing these concerns, The Second Regional Plan proposes programs in five areas (each treated in detail in its own chapter):

1. Urban centers and metropolitan communities.

To change the amorphous spread of urbanization into genuine metropolitan communities capable of supporting high-quality services in health, retailing, the arts, entertainment (including professional sports), libraries, and adult education (including job training) and to provide a real community framework for civic and political action, The Second Regional Plan proposes the creation of about two dozen partially self-contained metropolitan communities within the Region (Map 2). These new metropolitan communities would include Brooklyn and Queens and possibly the Bronx, which would be strengthened as distinct communities within New York City.

New metropolitan communities would be formed by clustering most of the major metropolitan facilities of those areas in a main center, a modern "downtown" for each metropolis. Typically, the facilities would include 30,000-100,000 office jobs, one or more colleges, a major hospital, several department and specialty stores, theatres, a museum, a concert hall, a central library. Around this center would be a large percentage of the apartments the population of the area will need, primarily for households without children.

In addition to providing services that otherwise would not be available and creating communities which can carry out needed civic and political activities, the proposed metropolitan centers offer the following advantages over scattered offices and metropolitan facilities:

a. Convenient meeting for persons involved in frequent face-to-face relations--particularly for high-level office activities.

b. Base in collecting a large number of employees or a wide range of employee skills; and vice versa, ease for the individual in finding a wide range of job opportunities.

c. Availability of supporting services for office workers, such as restaurants, messengers, printing, letter services.

d. Public transportation, otherwise not possible.

e. Easier comparison shopping and more convenient errands because several can be done on one trip.

f. Stimulation for people to do what they otherwise might not bother with, for example, taking part in adult education or job training, visiting a museum, attending a concert.

g. Chance for informal meetings, finding the unexpected, more excitement, variety and interest.

h. Residential areas left quieter, with fewer local traffic jams.

i. Most of the Region left free of ugly roadside stores and work places.

j. More people living close to their jobs if the apartments wanted by the people in the area surround the center.

Most of these centers would grow up where smaller centers are now. First efforts should go toward increasing the office jobs and modernizing the facilities in Jamaica (Queens), downtown Brooklyn and downtown Newark. They are advantageous sites for offices and relatively cheap to

serve with added transportation. Equally important, these centers would improve the opportunities for minority groups living nearby. They also would maintain the interest in the old cities of middle- and upper-income people and keep a strong economic and tax base there.

The Manhattan central business district (south of 59th Street) seems likely to gain about 500,000 more office jobs, 35 percent of the Study Area's prospective increase, if new, faster transportation can be provided beyond present plans to build new subways to handle gross overcrowding.

Areas outside the Core will absorb about half the prospective office growth, 650,000-750,000 jobs.

2. Housing.

Housing now being built for families with children consists predominantly of one-family houses on lots of half-acre or larger. (As a measure, houses in Levittown, Long Island, have yards of one-seventh acre; one-family-house neighborhoods in Queens and the Bronx have about ten houses to the acre.)*

The principal reason that almost all new houses are set on large lots is that local governments require it. They want to limit the number of families, and therefore of school children, who can live within the school district because each school child costs the district more taxes. They also want to increase the cost of each house so families pay more taxes. Some favor the policy because it keeps out lower-middle-income families.

The result is that almost no new housing is being built for families with incomes of under $10,000 a year, except government subsidized housing, which is mostly in the old cities. So these families remain crowded into obsolete housing in the older cities. By far the majority of Negro and Puerto Rican families are among these families, and their segregation from the rest of the Region is growing.

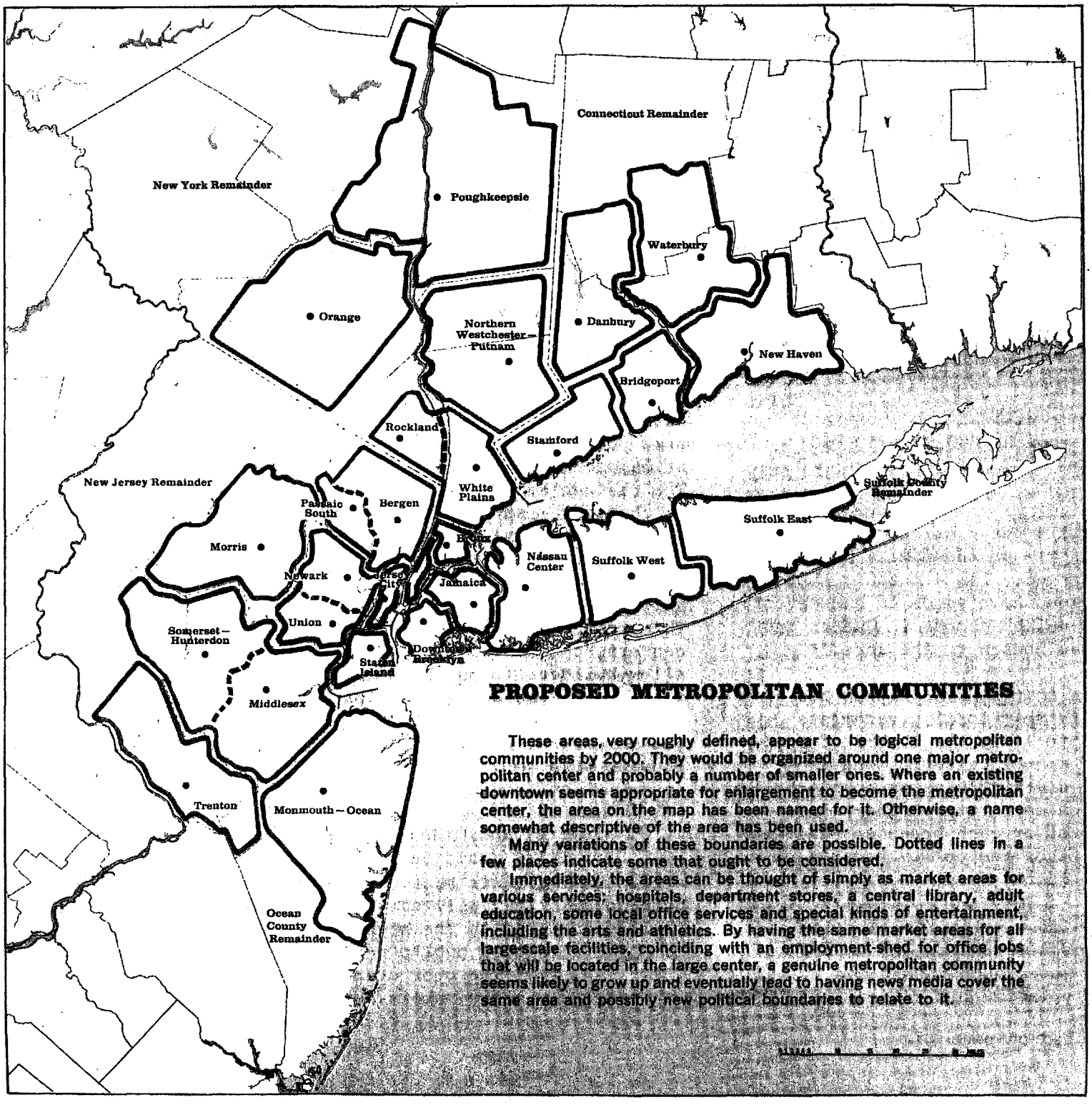
Another result of large-lot zoning policies is that even families with enough money to buy a new house have little choice of lot size or type of neighborhood. A third result is that open land is wasted and urban facilities are inefficiently spread out.

The proposed metropolitan communities should have varied types and prices of housing, including some publicly assisted, so these communities are as balanced economically and ethnically as possible. The new centers throughout the Region would help to change the spread housing pattern because there would be a strong demand to live close to them. (Notice the way Manhattan's jobs and activities create a demand to live near them and therefore a willingness to give up living space to do it.) This prospective demand to be close to the new centers, coupled with a change in local zoning to allow builders to put up houses on small lots, attached houses and garden apartments for families with children, would produce a variety of houses and neighborhoods, including cheaper types of housing than we are now building and possibly a restraint on booming land prices.

3. Poverty and older cities.

Older cities would be helped by the policy of strengthening their business centers, but that is not enough. They will never be pleasant places to live compared to the newer areas until the cost of poverty-related public services is lifted from them. Nor will the poor ever have the quality of education and other public services needed to

*Lot sizes are illustrated on page 15.



PROPOSED METROPOLITAN COMMUNITIES

These areas, very roughly defined, appear to be logical metropolitan communities by 2000. They would be organized around one major metropolitan center and probably a number of smaller ones. Where an existing downtown seems appropriate for enlargement to become the metropolitan center, the area on the map has been named for it. Otherwise, a name somewhat descriptive of the area has been used.

Many variations of these boundaries are possible. Dotted lines in a few places indicate some that ought to be considered.

Immediately, the areas can be thought of simply as market areas for various services: hospitals, department stores, a central library, adult education, some local office services and special kinds of entertainment, including the arts and athletics. By having the same market areas for all large-scale facilities, coinciding with an employment-shed for office jobs that will be located in the large center, a genuine metropolitan community seems likely to grow up and eventually lead to having news media cover the same area and possibly new political boundaries to relate to it.

Table 1

Population 196

Connecticut	
New Haven	
Bridgeport	
Waterbury	
Stamford	
Danbury	
Connecticut Remainder*	
Totals	
New Jersey	
Bergen	
Newark	
Middlesex	
Monmouth-Ocean	
Morris	
Trenton	
Union	
Jersey City	
Somerset-Hunterdon	
Passaic south	
New Jersey Remainder*	
Ocean Remainder*	
Totals	
New York excl. N.Y.C.	
Nassau Center	
Suffolk west	
White Plains	
Orange	
Poughkeepsie	
Suffolk east	
North Westchester-Putnam	
Rockland	
New York Remainder*	
Suffolk Remainder*	
Totals	
New York City	
Brooklyn	
Queens	
Manhattan	
Bronx	
Richmond	
Totals	
Total New York	
Total Region	

*Peripheral areas

Note: Details may

map 2

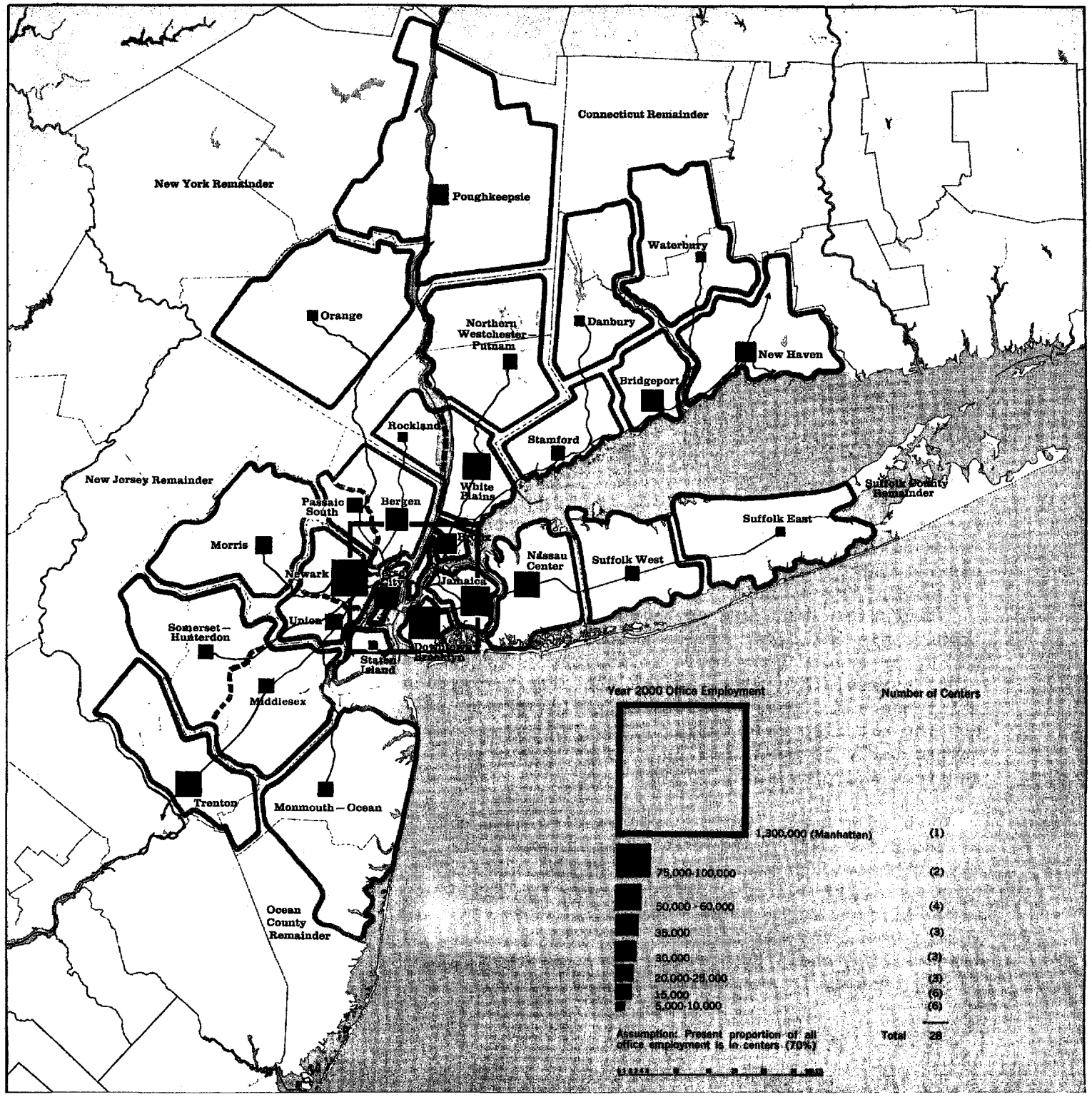
COMMUNITIES

to 2000 (projection)

1965 Population (000's)	Change 1965-2000 (000's)	% Change 1965-2000
490.9	436.1	88.8
323.2	192.8	59.7
279.2	235.0	84.2
303.0	181.0	59.7
112.6	174.4	54.9
63.1	108.7	172.2
1,572.0	1,328.0	84.5
849.3	600.7	70.7
1,015.4	341.6	33.6
516.8	708.2	137.0
435.4	752.0	172.7
319.3	640.7	200.6
319.0	481.0	150.8
539.5	160.5	29.7
561.6	81.4	14.5
186.8	337.2	180.5
402.5	57.5	14.3
166.3	399.3	240.1
107.0	321.0	300.0
5,418.9	4,881.1	90.1
1,397.0	503.0	36.0
685.8	702.2	102.4
718.0	311.8	43.4
205.7	594.3	288.9
275.0	525.0	190.9
190.0	519.0	273.2
177.0	453.2	256.0
186.9	173.1	92.6
112.1	147.9	132.0
51.0	152.0	298.0
3,998.5	4,081.5	102.1
2,698.7	101.3	3.8
1,941.5	358.5	18.5
1,565.2	64.8	4.1
1,527.8	-27.8	-1.8
258.3	411.7	159.4
7,991.5	908.5	11.4
11,990.0	4,990.0	41.6
18,980.9	11,199.1	59.0

metropolitan communities by 2000.

totals due to rounding.



map 3

raise themselves from poverty as long as the cities must contribute a large share of the costs. They just can't afford the substantial added investment in poverty-related public services that are needed. Poverty is a national problem even though free migration within the country has allowed it to concentrate in cities. It should be counteracted by federal funds, not by city and state funds. Furthermore, states should provide more of the cost of education (apart from special education programs to overcome the effects of poverty). Then, cities will have enough tax money to provide much better education for all children, more parks, better maintenance of public places, better public transportation, policing and waste disposal.

With improved public services and modern, growing business and cultural centers in the cities and with housing outside the older cities for those of all incomes who want to live there, these cities will be in a position to attract a diverse population that really wants to live there.

There will then have to be housing and neighborhoods in the older cities suited to middle- and upper-income families. In many parts of the older cities, this will require not only better maintenance and possibly rehabilitation of the housing but also redesigning of neighborhoods, particularly to open them up so they have more sunlight and play space.

Even if all the families who want to move out of the older cities are enabled to do so, there may not be enough pressure taken off the cities' housing market to renew neighborhoods for families with children who want to live there if housing vacancies in the older cities are quickly filled by unskilled unemployed moving in from other parts of the country in search of adequate income.

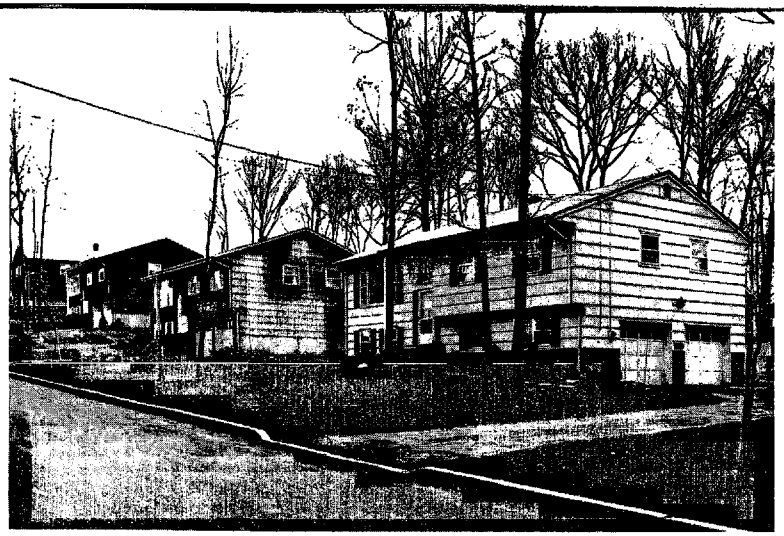
If the federal government established national welfare standards in taking over welfare financing, this in-migration pressure could be eased.

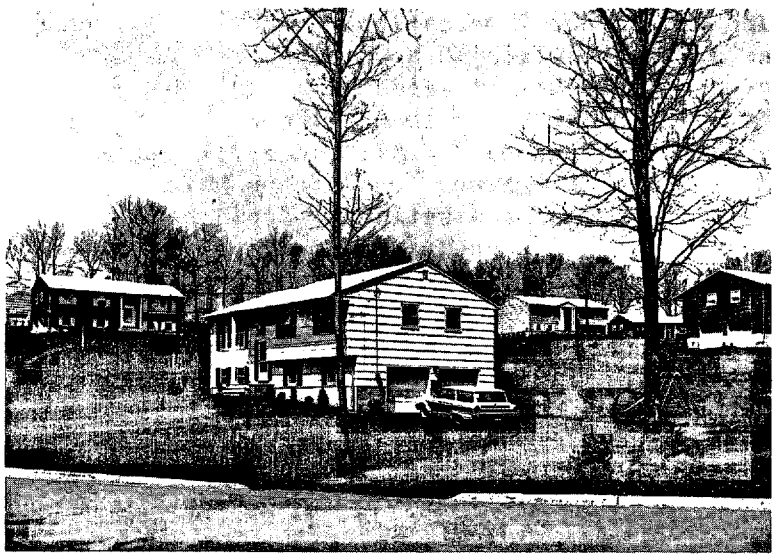
All of this is essential to keep our Region from completely dividing between black and white, rich and poor: making cities attractive to live in, opening housing for families of all income groups outside the older cities, investing much more in education and other special services for the poor but freeing the cities from their share of the financial burden, and slowing in-migration of Negroes and Puerto Ricans so that the older cities have breathing space to renew themselves at much higher quality for families with children.

Two further steps are needed for the poor:

1. Training and education must be provided for all who have the potential to step up the ladder of skills. Jobs requiring skills might be analyzed and broken down so less skill is needed to undertake them at first.

2. Unskilled jobs must be available for all who cannot do more skilled work. Manufacturing still offers the largest number of low-skilled jobs of any segment of the economy, but factories are rapidly moving out of cities to the fringes of the urban area in search of more space. For unskilled workers, it is almost impossible to find housing near these outlying plants, and public transportation is not generally available. While we recommend that housing within the price range of unskilled workers be provided near these plants, we cannot expect all factory workers to want to move out as fast as factory jobs are moving out. Therefore, efforts must also be made to keep factories near the centers, where they can be reached by public transportation. There are





Crowded neighborhoods like the one above in Manhattan should have more sunlight, play space and variety in design. This would be possible only if enough housing were built outside of the older cities at a price that city residents can afford so that pressure is taken off the cities' housing supply. Other policies also would be needed, probably, including national welfare standards to slow in-migration and energetic urban renewal programs in the cities.

Lot sizes are illustrated here by the same house on (at left from top to bottom) a fifth-acre, half-acre and one acre. Municipalities have been requiring larger lots in recent years, primarily to limit the increase in school children and raise the cost of the house and so the taxes paid on it.

still some large tracts in the Core which can house extensive factories, including the Hackensack Meadows and Southeast Brooklyn. Also, the expressway network in the Core of the Region (New York City, Hudson County and Newark) should be completed so trucks can get in and out efficiently to factories which then would have less reason to move away.

But the Region's economy cannot rely on factory jobs alone to employ low-skilled residents. Production jobs in factories are actually declining even as the labor force grows, so additional low-skilled jobs must be available as long as there are unskilled persons seeking work who cannot be trained for more skilled jobs. There are hundreds of unskilled jobs which would make the Region a better place to live--just look around our cities and compare them to European cities that Americans flock to admire every summer. It would be doubly productive to employ people to build a better environment than to leave them unemployed.

Finally, wages for unskilled work must be adequate to keep a family healthy.

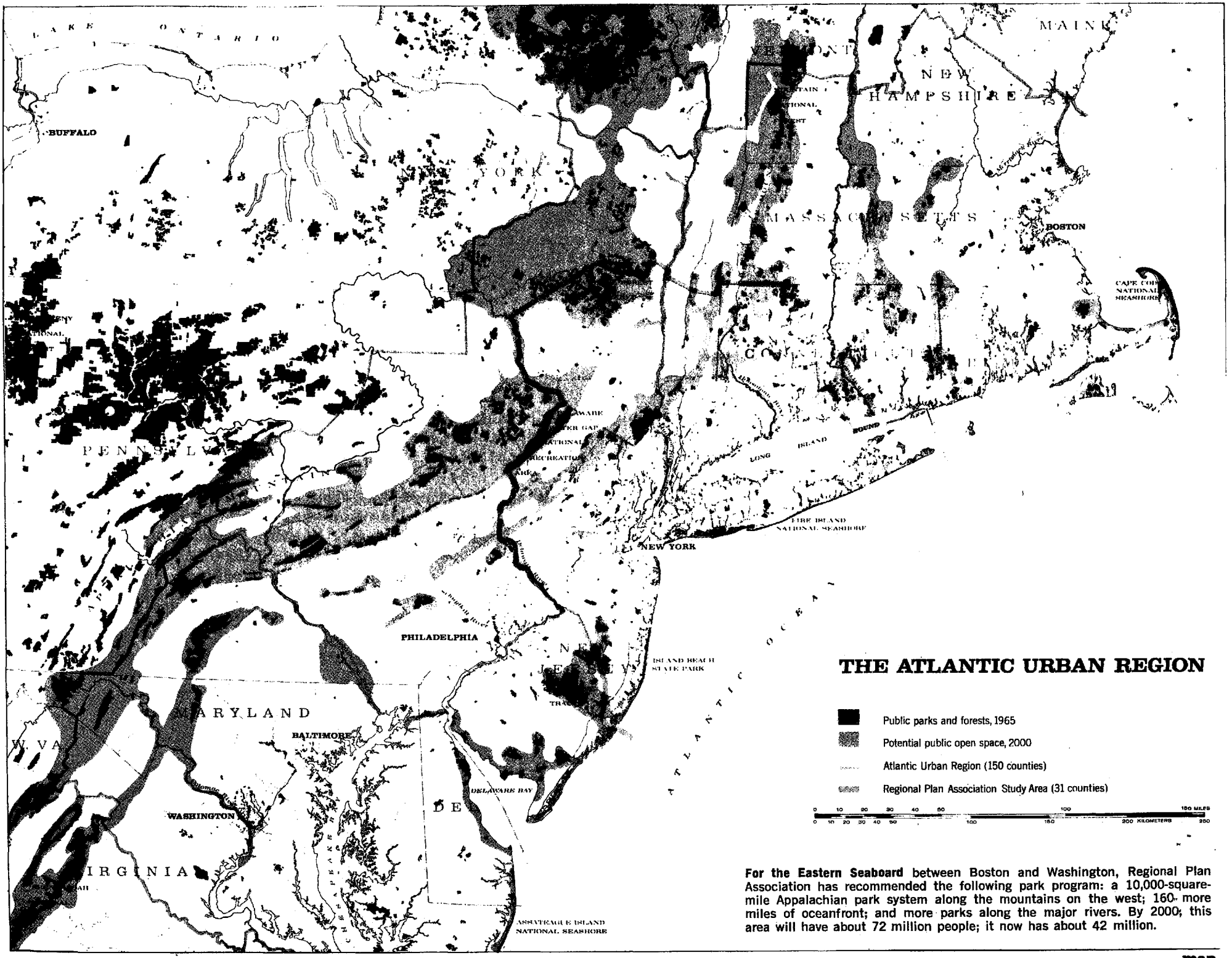
4. Nature and design.

Nature. More attention should be paid to a body of knowledge now widely called ecology, which deals with the life cycle of earth, water, plants and animals. Generally, ecologists warn, man should stop upsetting the balances of nature as much as urbanization now does. There is too much draining of wetlands; too much clearing and building on steep slopes, allowing water that once soaked into the ground to pour into the sea; too little concern for animal, bird and fish habitat; too many wastes in air and water.

In general, advice from ecologists adds up to keeping a larger proportion of the Region in a natural state than present development patterns would allow. Instead of scattering housing, factories and things of the city throughout the countryside, city and country should be more clearly distinguished, with city taking less of the earth's surface than our recent spread-city pattern does.

Parks. Much more public parkland either in or near the Region is needed to meet fast-rising demand for outdoor recreation. About 10,000 square miles of the Appalachian Mountains from Vermont to Virginia should be set aside as a green backdrop and recreation area for the residents of the Atlantic Urban Seaboard. All the remaining open oceanfront and large portions of the major river valleys, bayfronts and wetlands should be set aside for outdoor recreation, conservation and aesthetic enjoyment. (Map 4.)

A new principle of open-space acquisition should be accepted: immediate public purchase of all open space that will be needed by the Region when it is fully populated, insofar as population can be projected. The total cost of purchasing the land now and paying interest on long-term loans almost certainly would be lower than the total cost of the land later on, after it is surrounded by houses, stores and highways. This is particularly true if governments wait to buy a prospective park until a builder has purchased the land for a project, which has happened several times recently. Furthermore, political opposition to the purchase will be much less before development creeps in on it, and important parcels will not be lost because a developer moved faster than the public.



For the Eastern Seaboard between Boston and Washington, Regional Plan Association has recommended the following park program: a 10,000-square-mile Appalachian park system along the mountains on the west; 160 more miles of oceanfront; and more parks along the major rivers. By 2000, this area will have about 72 million people; it now has about 42 million.

map

Repayment of the bonds over a long period places most of the cost on the future generations, who will use the parks.

Open-space planning should weigh the cost in time and money of the trip to play, both public costs (i.e., roads) and private. Parks like South Mountain Reservation and Jones Beach, once built with city residents in mind, have become surrounded by suburban dwellings. Central city residents find them hard to reach by highway and crowded when they arrive. Costly as city land is for parks, it may be cheaper than buying parks farther out and cutting additional highways through the suburbs to them. One method that might prove feasible in providing outdoor recreation in cities is to depollute rivers and beautify their banks. Pools can be built on the river's edge if the current is too strong or the water not pure enough for swimming.

Environmental quality. Wastes should be managed more rationally so the air and water in the inner parts of the Region are restored to a more natural state, landscapes are kept free of junk, and most remaining wetlands are protected against filling. Five steps would lead to better waste management:

1. Much more research should be done on the damages to the environment from waste disposal (e.g., air and water pollution) and on improving methods of disposal.

2. Costs of waste handling and of the damages to the environment caused by wastes should be charged to those responsible for the decisions that determine the wastes that are generated. This would encourage people to cut down on wastes and to search for more efficient ways of treating them. For example, if the costs of disposable bottles and cans included the full costs of their disposal, including their negative effects on the land, more efficient ways of reusing the glass and metal or destroying them would be sought.

3. Public waste handling should be organized more efficiently, particularly larger units should manage collections and disposal of solid wastes and sewage.

4. A regional organization is needed for research and monitoring of damages from all three forms of wastes--solid, liquid and gaseous.

5. The costs of various levels of environmental quality should be made clear to people so they can register their choice and see that their governments achieve it.

Design and amenity. The Region should be arranged so people can somewhat sense its form. Particularly, the regional highway network should be laid out and rights-of-way acquired immediately to assure a network that is continuous and easy to grasp in one's mind. There should be a number of places with high buildings alternating with low.

County rights-of-way, too, should have a clearer form, best achieved if the county can acquire them in advance. In general, county and municipal planners should begin to design their areas, not just plan them. On a large scale, they should insist on such design principles as variety and image-ability. On a smaller scale, they should make sure that buildings relate to their surroundings for beauty, efficiency and enjoyment. (The New York City Planning Commission recently hired an urban design staff; other major

planning units of the Region should, too.)

Municipalities should rewrite zoning ordinances to give incentives for construction that achieves the locality's design goals. Building codes and subdivision regulations also should be geared to these goals.

All county planning agencies should be staffed to advise on subdivision plans filed with local planning bodies (who are not likely to have professional design advice).

Urban centers must be carefully designed. Downtowns have survived despite poor organization over the centuries because there was no alternative. But since World War II, the automobile has made possible a revolt against working or shopping downtown, and centers will be avoided if they are inefficient and dreary.

The design of these metropolitan centers should provide for several levels of movement so pedestrians can avoid walking alongside and in front of motor vehicles. Transit generally should operate below ground and passageways to it should be open to light and air wherever possible and should not be cramped and dark.

High buildings should be clustered not only to relate closely to key transportation points but also to vary the high images and the low so it is easy to find one's way around and dull sameness is avoided.

There should be places to sit and interesting things to see from a pedestrian level.

More green should be introduced in the cities. Outstanding natural features such as rivers and ridges should be preserved and the view made accessible to as many people as possible, for example with parks, restaurants and apartments along rivers and on the ridges.

Generally, there should be more money invested in making the Region a beautiful and enjoyable place--better design, better maintenance of public places, elimination of ugliness (like overhead utility lines and elevated highways and rail lines) and more pleasurable places like parks of all sizes.

5. Transportation.

The recommendations already made have important transportation implications. They require certain transportation action to make them work; they make possible certain transportation goals if we follow them.

Without metropolitan centers in the outlying areas, there is unlikely to be good public transportation.

On the other hand, large centers will require good public transportation. Centers with more than 10 million square feet of non-residential floor space (offices, factories or stores) in a square mile are too large for everyone to arrive by car. (Ten million square feet would house about 40,000 office workers and 10,000 service workers in restaurants, shops, etc.) Travel corridors in which 15,000 persons or more want to move toward a center in the peak hour also require public transportation. Good public transportation must be available before the center becomes so large that it is essential, or developers may resist locating in the center in fear of growing congestion on approaches and streets.

The Core downtowns of Brooklyn, Newark and Jamaica can tap onto the rail network to Manhattan, but the outlying centers will be served mainly by automobile and bus. Clearly the expressways of each new metropolitan area should be focused on the main center in each area. Buses should have their own right-of-way at least during rush hours. Otherwise they can never compete with the automobile in speed door-to-door, and everyone who can afford to will try to drive, clogging the highways and slowing everyone down.

Metropolitan centers linked to Manhattan by railroad will have a distinct business advantage over downtowns outside of the Region.

People should be able to move within the centers more easily than they circulate now in downtowns around the country. This can be done partly by better design, particularly by tying transportation directly to the main activity places in the center. For example, the largest office buildings should rise over and connect directly to the main rail station.

Furthermore, walking should be easier and pleasanter.

Finally, new types of mechanical aids to circulation will be needed, moving sidewalks or some other vehicle that can be taken at almost any time and place to reach almost any other place in the center.

In sum, good public transportation and expressways to each center, good rail service throughout the day from each center to Manhattan, and good circulation within the centers are the transportation requirements of successful metropolitan centers.

Reciprocally, the existence of centers will provide transportation advantages. It is the centers with housing clustered around them (section 2) which will provide people with a transportation choice they would otherwise not have--bus (or possibly rail) as well as automobile. This is especially important for the young, the old, the sick and the poor, who cannot drive. It also will help to hold down the number of expressways needed.

Two transportation proposals relate to section 3, making the old cities attractive places to live. Just as new development policies are needed in the newer areas if residents are to have a choice of bus or train as well as car, so new transportation policies are needed for some parts of the older cities to allow residents there to use a car more readily: completion of the expressway network in the Core (for example, the Cross-Brooklyn Expressway, Lower Manhattan Expressway and a connector between the Holland and Lincoln Tunnels in New Jersey) and redesign of many residential neighborhoods to make driving and parking easier.

More important, public transportation speeds in the Core must be sharply increased, and the comfort, convenience and aesthetics of the subway system drastically improved. State programs to modernize commuter railroad service have begun in New York and are planned in New Jersey and Connecticut. When they are finished, it will take no longer for a typical suburban commuter to reach Manhattan from a home 25-35 miles away--seated in an air conditioned car--than it takes a typical New York City resident to come on the subway--standing in a sweltering car--from 10-12 miles away. Additions to subway capacity under the Metropolitan Transportation Authority program must be pressed to eliminate gross overcrowding. But subway speeds

are very slow compared to speeds of commuter railroads and automobiles on suburban expressways, so wholly new transit technology is needed if city neighborhoods are to retain the advantages of being near the central business district. This technology must provide for very fast starts and stops without discomfort to the passenger, because in a city, stations must be close together. Speed of starting and stopping is more important in cutting trip time than the top speed of the train.

The only technology that seems likely to do this at reasonable cost is one which has the motion of a pendulum and uses gravity and a vacuum as part of the power to move it and stop it. Priority in transportation research should be given to proving this technology so that cities can become more attractive places to live. Otherwise, transportation advantages of the suburbs will drain from the older cities increasing numbers of residents whose rising incomes will enable them to leave, further isolating the poor and particularly Negroes and Puerto Ricans.

But important as public transportation is for the Region, even if all the public transportation proposals in this Plan were implemented, probably about 70 percent of all trips in the Region will be made by car in the year 2000 just as they are today. As incomes, number of automobiles, leisure and population all go up substantially, travel by automobile also will skyrocket, if the trends over many years continue. So highway construction also must be continued at almost the pace of construction of the past two decades.

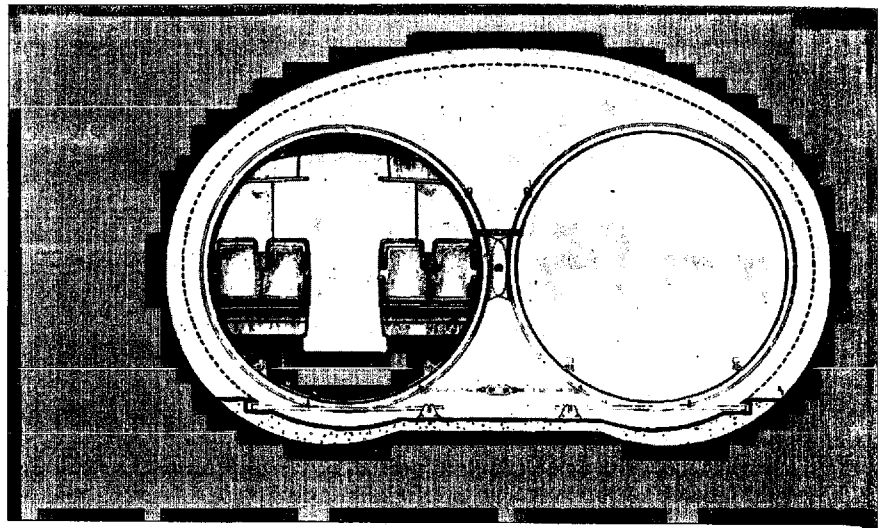
Because expressways allow twice the speed of other roads with a third to a fifth the accident risk, and because they use only a fourth the space for the number of vehicle miles travelled, they should be available for most relatively long trips by car (at least a few miles). They should be built only where a lot of trips will be made, however, not through sparsely settled areas.

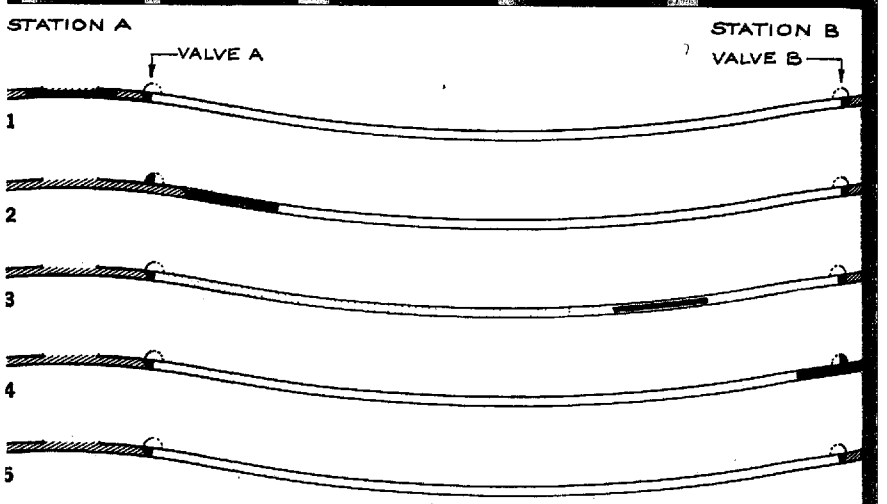
The standard of expressway service we recommend is roughly that existing now in Queens, the Bronx and Westchester (comparing total miles driven with total miles driven on expressways--about 35 percent of vehicle miles travelled in these counties are on expressways). Increasing trips on local streets and roads would make some added expressways necessary there. In New Jersey, enough new expressways should be built to double their share of all miles driven and to provide for increasing car-miles driven.

Since improved highways induce people to drive more, there is no precise total of expressway miles that exactly matches the driving demand. Build more and people will drive more. But would they prefer to drive less and have fewer miles of highway cutting through communities and countryside? That must be decided highway by highway. The totals recommended here are our estimates of a reasonable balance over-all, between easy travel and landscape unspoiled by too much highway.

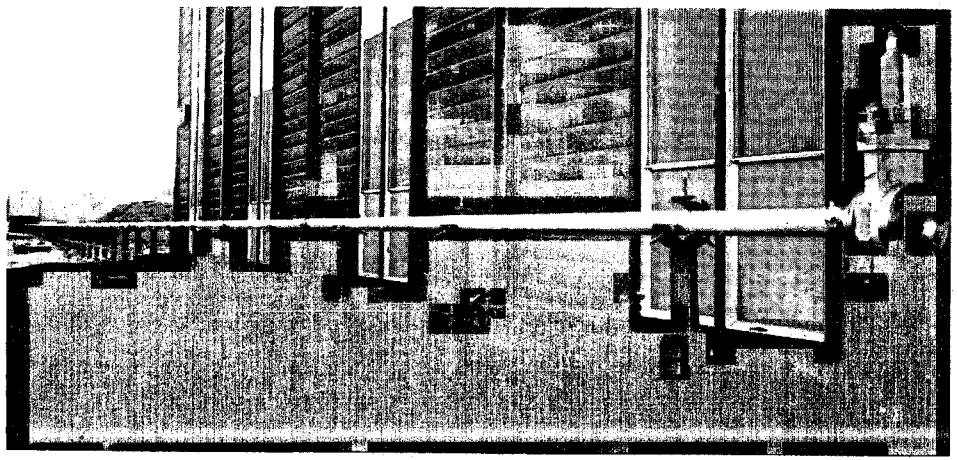
These recommendations call for a large increase in spending for transportation. Comparing the proposed improvements with other goods and services we might buy with the same amount of money over the next decades, this program probably would be worth the cost to most residents. But if we cannot increase the total expenditure on transportation,

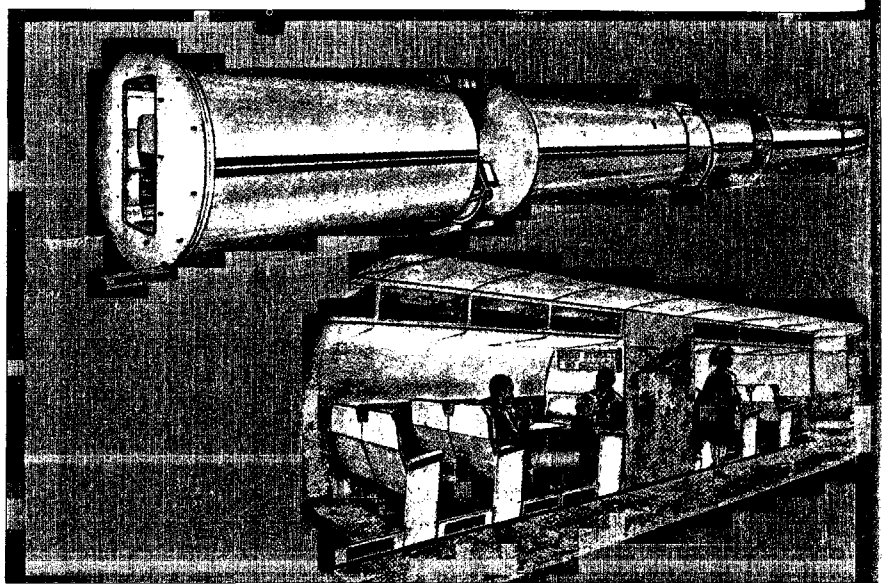
Drawings of a design of gravity-vacuum transit show the use of gravity and the pendulum principle, which allows extremely fast acceleration and deceleration without passenger discomfort, and the relatively small tunnel cross-section needed, reducing the construction cost.





The gravity-vacuum tube, a new transportation technology which could greatly speed in-city transit while cutting operating costs, is now being tested in a one-fiftieth scale model (below). Speeds of the vehicle in the scale model--powered by partial evacuation of the tube (without gravity)--have reached 280 mph. About $10 million is needed to build a full-scale model for testing.





this Region would benefit from giving priority in transportation spending to the public transportation proposals. Even motorists would gain more from these programs than they would from many highway projects that would be built if highways continue to receive transportation investment priority.

Interregional travel. Every day, there are about 260,000 trips between the New York Region and places outside the Region. Although they are well under 1 percent of all trips taken by people in the Region, they are very important to New York's role as an international business center and headquarters of the United Nations and of hundreds of national and international civic and professional organizations. So the Region needs excellent long-distance travel facilities.

Proposals on air travel to and from the Region will be released by Regional Plan Association in the near future.

What do the proposals add up to?

That is the Second Regional Plan in summary. (The full draft Plan, with the arguments for the policies recommended and some of the alternatives we considered and rejected, are in the following chapters.)

What does the Plan add up to?

It affirms the city's function: bringing people together. But it accepts the suburban value of a one-family house on its own lot for most families with children.

It proposes that each of the Region's residents have both a small local community and a large, metropolitan-sized community. It demonstrates that these communities, though joined like beads on a string along the Eastern Seaboard, can retain their identity.

It provides for a much wider choice of jobs, housing, goods, services, activities and friends than man has ever had before, particularly enlarging these choices for the poor and minority groups.

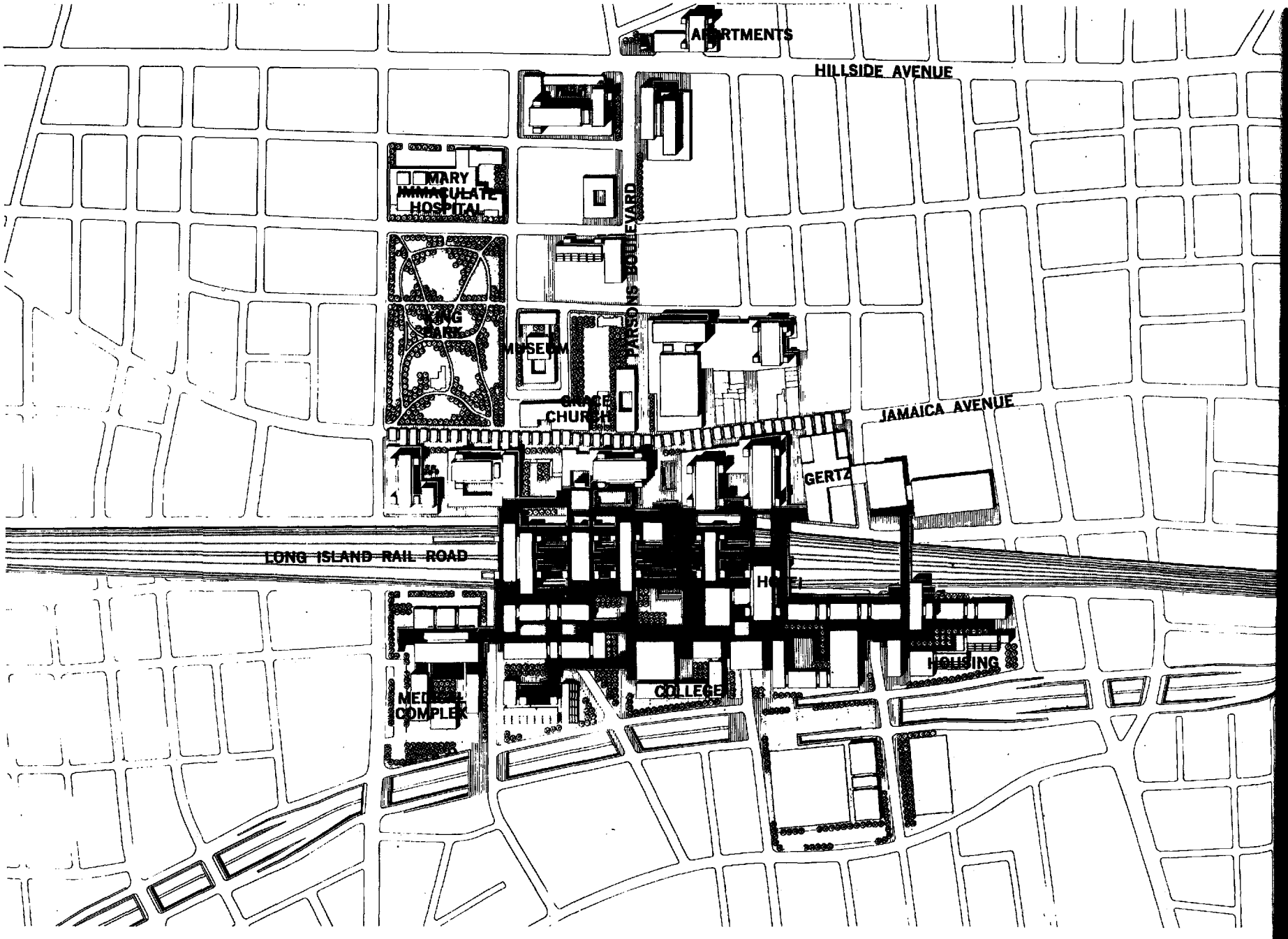
It sets a goal of increasing participation of Negroes and Puerto Ricans in the full life of the Region.

And it issues a call for man to live in greater harmony with nature even in a huge urban region and to devote more resources to making the urban setting efficient, pleasant and image-able, to which end it offers some principles and processes.

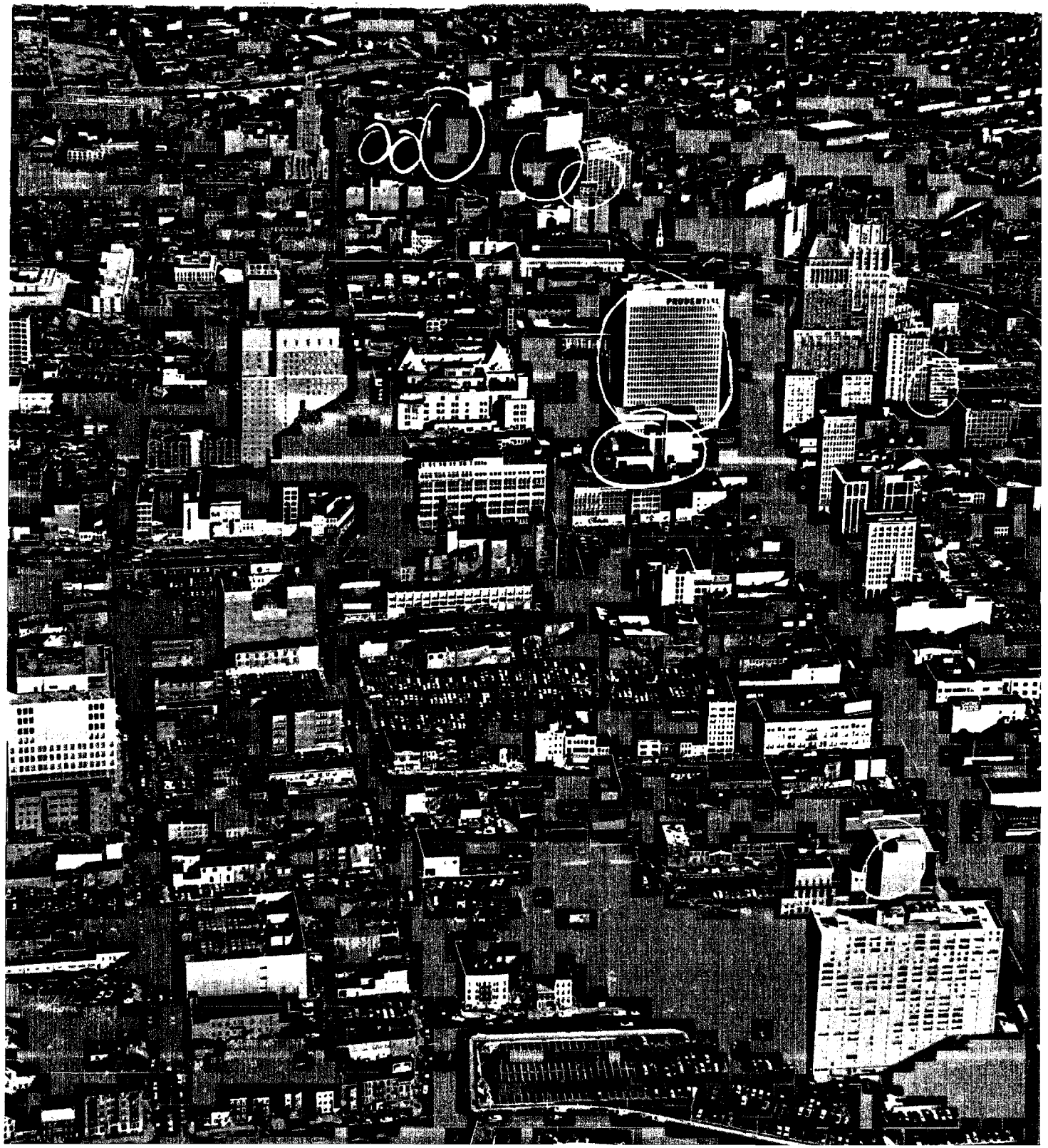
How will the Plan be achieved?

Discussions of this draft Plan are being scheduled for the full year of 1969 and into 1970. All kinds of groups will be asked to read and consider it and comment by questionnaire.

Their comments will be carefully considered by the Regional Plan staff before a final Plan is published, but the discussions already will have put the Plan ideas into the opinion stream of the Region (along with any widespread criticisms of it that come up).



A plan for Jamaica Center was prepared by Regional Plan as part of an exploration of the problems and potential of the three proposed metropolitan centers in the Region's Core outside Manhattan--Jamaica, downtown Brooklyn and Newark. The Greater Jamaica Development Corporation, a business-civic group formed to foster the new center, and New York City officials have taken several steps toward its accomplishment.



Downtown Newark gained 7,600 office workers between 1959 and 1965, a 15 percent increase. Postwar office buildings are circled. Nevertheless, the State's decision to put the New Jersey State College of Medicine and Dentistry there instead of on a suburban campus was valuable in maintaining business confidence that public investment would not pass Newark by.

II. HOW MANY MORE PEOPLE?

National economic trends indicate that the economy of the New York Metropolitan Region will generate an increase in jobs of about 70 percent between 1964 and 2000. This will be slightly greater than the number of young people expected to grow up here and look for work over those years, so we have assumed that enough new people will enter the Region to fill the additional jobs and make up for working-age people leaving. Many will bring families with them.

Figuring both the natural population increase (the greater number likely to be born here than die here over this period) plus the in-migration to fill new jobs, we have projected that the population in the area under study (Map 1) will rise from 19 million in 1965 to 30 million in 2000.*

In fact, whether the population reaches 30 million in 1995 or 2005 doesn't matter much in our planning. The important policy question is: should the population reach 30 million at all?

*Note that this estimate of population in 2000 is not based on a prediction of the future in-migration of unskilled unemployed in search of jobs or higher welfare payments. It starts, rather, with an analysis of how many jobs business will generate here and does not include in the population projection those who come into the Region without a job nor does it count jobs that may come here to use a large pool of unemployed should one develop. It simply estimates the growth likely in the Region's economy and the work force needed to man it.

Many react strongly: no more people! They say we are already too crowded, that nature already is pushed too far away, that there are few nearby places where one can get away from crowds, that we will be overwhelmed by our own wastes, that the spread of population has made the urban area too big and too complex for people to control it easily.

Many of these are valid complaints and fears, and we have considered them all.

Too crowded?

More people do not necessarily mean more crowdedness. This Plan proposes that some areas become less dense (for example, many neighborhoods in Brooklyn and the Bronx that need more play space and openness) and that some areas become somewhat more dense (for example, along the Hudson River in New Jersey across from Manhattan, near stations on new public transportation lines and around proposed centers). But there will be little addition to the population living on land already developed; the additional number will live and work on land that is now vacant. The new families will be living at densities that are less, on the average, than present densities in the Region or densities of recent development in smaller metropolitan regions elsewhere in the country.

There will be plenty of room for the additional population. Of the 12,750 square miles of the Study Area, only 2,350 square miles are covered with buildings, their immediate yards or landscaping around them and streets. There are 1,150 square miles of public parks, reservoirs and military camps. The other 9,250 square miles (over 70 percent) are rural, with more land converted from farm to woodland recently than is bulldozed

How the Plan works. The Plan is not a precise blueprint of everything that should be built, mile by mile. It is a framework of basic principles which can be applied over the years when development decisions are to be made. Nothing will happen just from the publication of the Plan. But a great deal happens when a regional plan principle is laid alongside a prospective public program or private investment so the public can judge the long-term effects of the program. For example, without the broad and long-range look of Second Regional Plan research, it would have been impossible to see the value and feasibility of building a major office center in Jamaica, Queens, the importance of the Lower Manhattan Expressway and putting it underground, or the high priority that should be given to developing a new transportation system that provides fast starting and stopping.

The principles must then be worked out in greater detail to fit specific situations, just as the general idea of new metropolitan centers was carried to a detailed analysis of how to build one in Jamaica. That concept has been persuasive enough to win the backing of all the key City officials. It also is accepted by the chairman of the Metropolitan Transportation Authority, which operates the subways and Long Island Rail Road. The current reorganization of these two rail systems will have direct effects on Jamaica's potential as a center. Businessmen have begun exploring investment opportunities in Jamaica, and Queens leaders have come together to facilitate development. The leadership of City officials and South Jamaica community organizations won the location of York College in Jamaica rather than on the edge of Queens where the Board of Higher Education had contemplated putting it. All of these actions grew directly from the Second Regional Plan idea of metropolitan centers.

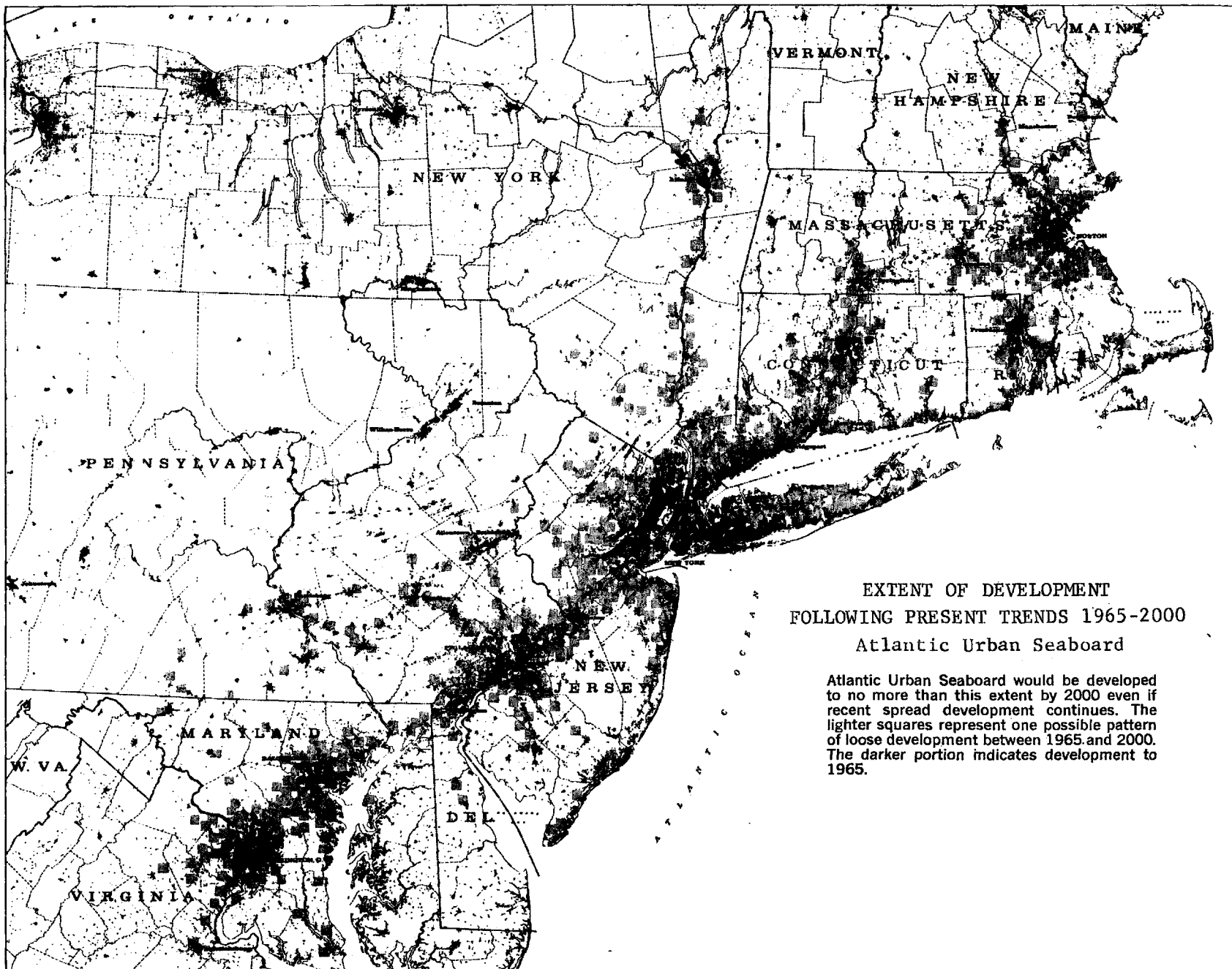
Government changes needed. Much of the Second Regional Plan can be carried out by present governments--local, county, state and federal. But some reorganization of governmental functions may prove essential to achieve all of these planning goals.

The housing proposals, for example, certainly require some change in the real estate tax system and probably will require participation of some level of government above the municipal in zoning, building code and public housing decisions. Some ways this might be done are suggested in Chapter IV.

Other governmental changes may seem advisable in combination with the Plan to give citizens more chance to influence the important decisions about their lives. For example, as the areas around the proposed centers become real metropolitan communities, they may want their own governments. If these communities are large and balanced socially, ethnically and economically, they could well carry out a number of public programs which now are left to the states and federal government because there does not seem to be an appropriate local unit to which they can be entrusted.

Some of these new metropolitan communities will conform fairly closely to existing governmental boundaries, such as a county, very large town or New York City borough. The present government might simply become the metropolitan community government, though the existing form may not be suited to the cohesive urban community that is anticipated here.

On the whole, the Plan is presented as a set of policies which citizens of the Region can achieve through the present political system. Where this proves impossible, the benefits anticipated by the Plan's proposals can be weighed alongside the necessary changes in the system to see if they are worth doing.



EXTENT OF DEVELOPMENT
FOLLOWING PRESENT TRENDS 1965-2000
Atlantic Urban Seaboard

Atlantic Urban Seaboard would be developed to no more than this extent by 2000 even if recent spread development continues. The lighter squares represent one possible pattern of loose development between 1965 and 2000. The darker portion indicates development to 1965.

for urban uses. Even if future development over the rest of the century used as much land per added family as the development of the last few years, and this Plan recommends somewhat more compact development, there would only be 5,600 square miles of buildings, yards and streets by 2000, with perhaps 2,650 square miles of public parks, reservoirs and camps, leaving 4,500 square miles of forests and farms, still 35 percent of all the land. (Map 5.)

Would the additional urbanization decrease the possibility of a good life for everyone here?

Too little nature?

Access to natural places depends on the development pattern as well as on the numbers. If the mountains are left open on the west, the oceanfront and bays on the east, and much of the major river valleys threading between them, and if each locality provides small but continuous open space in its natural state among the houses and yards, nature can remain accessible even as the population rises. It may be more difficult to find outdoor isolation, empty ski slopes, empty beaches, a lake or a bay without a flotilla of boats. But as income and leisure time expand, there will be alternatives. More people will be able to slip away from work in uncrowded periods, more will have personal recreation facilities--their own swimming pool, for example. More will be able to travel further in search of aloneness.

In short, 11 million more people in the Study Area need not overwhelm nature if urban development is disciplined.

But what of the ecologists' argument that the less land urbanized the better? From a conservation point of view, this is true, but if the children are born and must have a place to live, the only question is how much land is urbanized for each, not whether they should be housed at all.

Too much waste?

Already, we have let wastes get the better of nature, blackening the air, polluting water bodies, filling needed wetlands. How will we handle wastes of 11 million more? Waste Management, one of the background studies of the Second Regional Plan, suggested a course through which improved policies concerning the generation and disposal of wastes would make waste management so much more efficient that the Region could improve the quality of the environment even while absorbing 11 million more people. (See Chapter VI.)

Too complex for self-government?

Will added population overwhelm self-government? Again, the answer relates much more to how the population is added than to how many are added. The size of the community probably does affect the ability of citizens to shape its policies, but there is no reason why the added population cannot be organized into relatively small local communities like many of today's suburbs, in which local decisions can be made.

Most decisions affecting our environment can only be made on a larger scale, however. At present, these large-scale decisions are occasionally made by the states, at times by

public corporations with jurisdictions of their own, occasionally by the counties, now and again by municipalities in joint agreement. More often, they are simply not made consciously; everyone forfeits the chance. Most of the issues of The Second Regional Plan are of that type--they are being decided by default.

This Plan proposes (Chapter III) that new large-scale communities evolve and present ones be strengthened. They would supplement local communities. If people wished, these new metropolitan communities might control many of the issues that affect them. And by organizing the present and added population into metropolitan communities, it matters little from the point of view of controlling community decisions and feeling a sense of community how large the Region grows. It will enlarge by adding new metropolitan communities rather than over enlarging present ones.

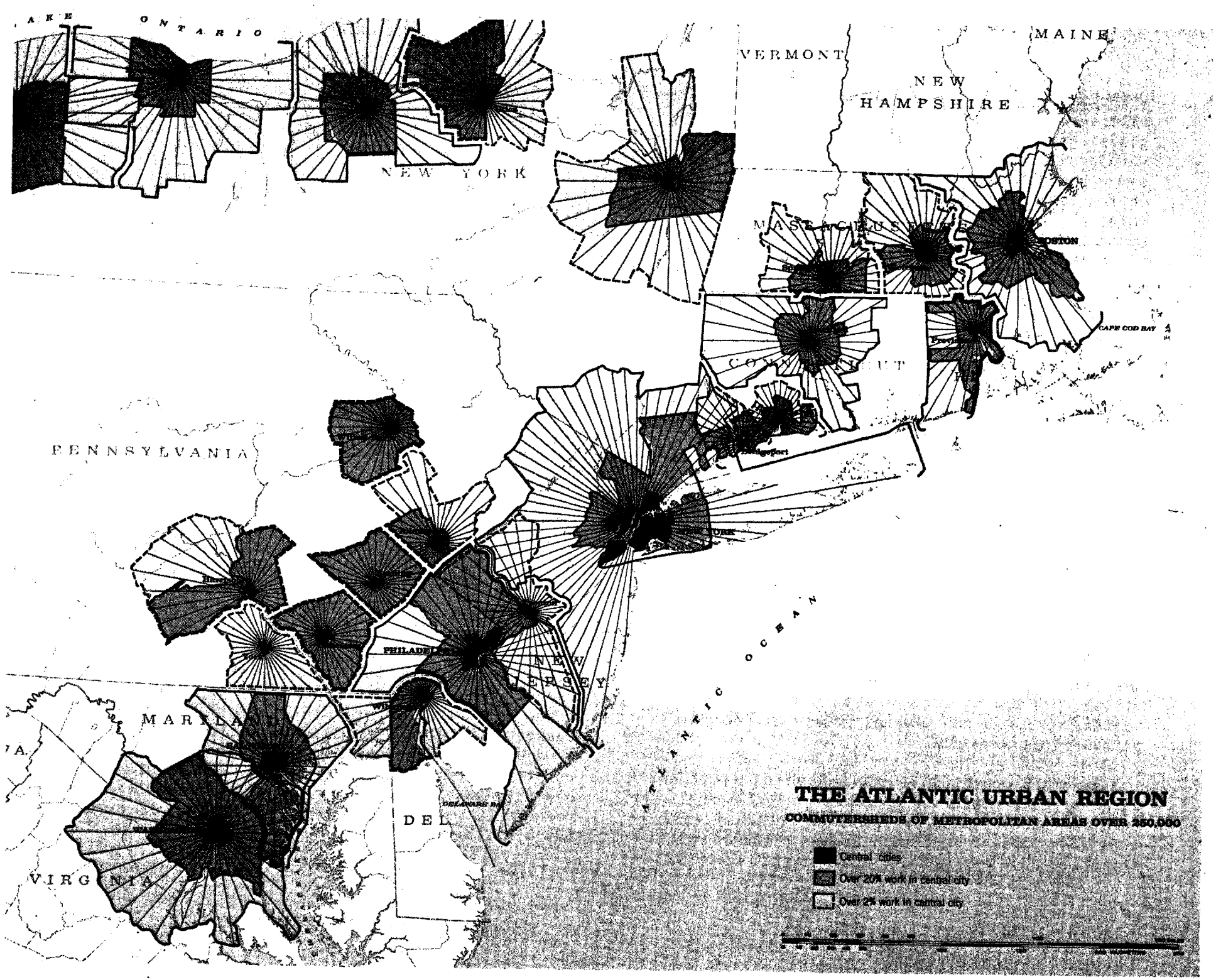
Even the prospect of continuous urbanization between Boston and Washington need not overwhelm people because this whole urban belt would consist of somewhat self-contained communities, both local and metropolitan, which would not grow indefinitely but would be strung together one by one like beads. Without urban centers creating such metropolitan communities, with only a spread city--houses, factories, offices, stores, apartments, roads, scattered evenly along the corridor between Boston and Washington--there would indeed be a confused web of entangled local communities, each affected by the others but with no lever for influencing what happens to the whole. Then every additional layer of population around the edges would add to the confusion. With metropolitan communities, however, overlapping of interests and complexity can be held in check, even though each community would benefit from proximity to the other, in the Region and the Atlantic Urban Seaboard.

The probability that communities can remain separate and pretty much self-contained even though they touch at the edges is suggested by Map 6. This shows that even today's older cities in the Atlantic Urban Seaboard have distinct commuter areas with little overlapping. If the magnetism of the proposed metropolitan centers is stronger than these older centers, as seems possible, their commutersheds probably will become more distinct and the sense of community even clearer. On the other hand, the regional centers--New York, Philadelphia, Boston, Washington, Baltimore, Hartford, Providence--also will become stronger so their commutersheds will overlap even more of the metropolitan communities surrounding them. There will remain, then, some confusion in community identity. On the whole, however, organizing the population into metropolitan communities by strengthening urban centers should clarify and strengthen the sense of community and the process of self-government even as population increases along the Atlantic Urban Seaboard.

On balance: is it good to grow?

These arguments may demonstrate that most of the negative aspects of population growth can be overcome. But wouldn't it still be better not to grow?

There are, in fact, positive as well as negative arguments for accepting growth.


LAKE ONTARIO
NEW YORK
VERMONT
MAINE
NEW HAMPSHIRE
BOSTON
CAPE COD BAY
PENNSYLVANIA
Bridgeport
PHILADELPHIA
NEW JERSEY
MARYLAND
DELAWARE BAY
VIRGINIA
ATLANTIC OCEAN
THE ATLANTIC URBAN REGION
COMMUTERSHEDS OF METROPOLITAN AREAS OVER 250,000
Central cities
Over 20% work in central city
Over 2% work in central city

map 6

Arguments in favor of growth. Added population offers added opportunity and choice--choice of goods, services and friends. At some point, perhaps, more people just provide more of the same, but the continued attraction of large metropolitan regions seems to indicate that the point has not yet been reached. And as leisure and education increase, men may develop even finer shades of differences among themselves which will require even larger numbers of persons to stimulate and support.

But the strongest arguments for allowing growth are the disadvantages of trying to push it elsewhere.

Arguments against limiting growth. The most obvious disadvantage is that 9 million of the added 11 million people will be our own children and grandchildren, not in-migrants. To a large degree, then, limiting the Region's growth means driving either our children or ourselves from the Region by prohibiting jobs from increasing here as the population increases.

Other disadvantages of limiting a region's growth can be inferred from the difficulties other nations have had in trying to do it. England, the Soviet Union, Japan and France all have tried to slow the growth of their largest cities with modest effect--even though the Soviet Union had the unusual powers of internal passports as a weapon.

Japan has consciously changed policies and now accepts urban growth in the Tokyo area, with development organized around nodes of activities like our proposed centers. French planners are divided. Some continue to favor trying to divert growth from Paris to other urban areas; others favor channeling growth that wants to be in the Paris area into an urban corridor west to the sea, with centers of activity along it.

Some English planners have admitted that surrounding London with a green belt and transferring jobs and factories to new towns beyond the green belt have not achieved their aims. The new towns have not provided adequate opportunities for residents, and they are no longer self-contained but are rather residential and job clusters within an increasingly formless spread city around the green belt. Better to have kept green wedges separating urban corridors than a green belt aimed at cutting off urban growth, many now say. Recent British policies call for accepting 3½ million more people in the London region over the next twenty years, organized in large new cities rather than towns.

The reason for this difficulty in limiting growth of large urban regions is that business, civic and governmental executives seem to prefer to locate their enterprises in and near very large centers. The history of urban growth in the world suggests that this is a natural trend. The world's largest urban areas have grown at about the same rate as total world population. Since 1800, in fact, the largest urban areas have grown faster than world population. The explanation seems to be that population increases must be supported by more efficient production, which has always meant division of labor. The growing complexity as work is more divided and specialized seems to require larger groups of individuals personally interacting. (See The Region's Growth, May 1967.)

In this country, production of goods requires decreasing attention, but the things we do with the time freed from production work seem to require still more interaction.

While there is a limit to the number of persons with whom an individual can interact and therefore it would seem that a rather small urban area would satisfy all needs, in fact, it is organizations that interact with other organizations not just individuals with individuals, and organizations are growing larger. The logical result is the continuous urban corridor like the Atlantic Urban Seaboard and similar urban complexes in other parts of this country and in other countries.

Conclusion: accept growth to 2000. None of this argues that the nation and the world are better off with more people. Recent expert warnings that man's interference in the natural cycles of soil, water, plant and animal life may be causing irreparable and serious damages to man himself must raise questions about continued population growth. What we are saying is that this Region, at least until 2000, seems to be able to handle its projected share of national population growth without demonstrable deterioration of living conditions. In many ways, we shall gain some advantage from the location of some of the nation's growth here.

No one need be too crowded, there can be enough open space for visual and spiritual relief, there can be enough recreation land, there can be sense of community. And we have chosen to work on making sure there will be these things rather than urging the course on which no nation has yet fully succeeded, trying to retard the growth of the nation's largest urban area. Growth may make a good environment more difficult to achieve, but if we have the will to achieve it, there is no inherent obstacle.

But not indefinitely. As 2000 approaches, it seems likely that firm national population policies will be required to keep urban life pleasant. When the Atlantic Urban Seaboard rises above 70 million, there may, indeed, become serious obstacles to the enjoyment of open countryside. (All other facilities probably can be duplicated for additional people.) We propose that the federal government begin studies now relating to maximum satisfactory population in various sectors of the country--defining what would be lost and gained by adding population and what policies might succeed in guiding population growth.

Such studies should begin with questions of limiting national and world population growth, not simply proposing where in the country added population should go. By 2030, world population probably will have tripled over 1965, from 3.3 billion to about 10 billion. At fairly tight suburban densities (about six houses per acre), this population would inhabit a tenth of the habitable portion of the world. If world population continued to grow to about 30 billion people, they could still live on only a tenth of the habitable land and densities would not exceed those common in European urban areas--allowing widespread house and car ownership. But if world population is to level off at 30 billion people, the growth rate will have to begin declining by the year 2000 at the same rate as it has been increasing in modern times. Birth rates all over the world will have to decline below the level of advanced countries and far below present birth rates of less developed countries. Undoubtedly, this will take some intensive public education, and perhaps it will require that people have fewer children than they would have liked were there no threat of overcrowding the world.

If the current 2 percent annual population growth rate does continue, world population would increase a thousandfold within 370 years. That population would settle the entire land surface of the earth at the Manhattan density of 100,000 persons per square mile.

Summary

In sum, the policies proposed are:

1. Accept the Study Area's prospective share of the nation's projected population growth to the end of the century (about 11 million more people) and make the most of having them while protecting open space and organizing metropolitan communities within the urban corridor.

2. Press for a national study of the effect on living conditions of projected world and national population growth, including a look at possible national population distribution policies.

III. METROPOLITAN ACTIVITIES AND METROPOLITAN COMMUNITIES

Metropolitan activities

The location of key metropolitan activities--office jobs, colleges, department stores, major hospitals, central libraries, theatres, concert halls, museums--plus apartments for small households are the most important levers for shaping the New York Metropolitan Region.

Definition. These are "metropolitan" activities because it takes a metropolitan-sized community to support them with high quality.

They are metropolitan, too, because people are willing to travel several miles to get to them--much further than they would travel to a grocery store, for instance--and so they usually travel on highways or public transportation arranged to serve more than a single locality.

Future needs.

Table 2

METROPOLITAN ACTIVITIES: 1965-2000
New York Metropolitan Region Study Area

	Addition needed 1965-2000	Existing 1965	Percentage increase
Office workers	1,400,000	1,600,000	87½%
College students	1,300,000	500,000	260
Hospital beds[1]	45,000	88,000	51
Department stores	100[2]	160	62½

[1] General care
[2] Present average size in Study Area

The population in 2000 also could support about 30 more theatres and 30 more museums, though we may not organize ourselves to have them.

Alternative locations

Before World War II, nearly everyone in an urban area had a downtown for his metropolitan facilities. Those who lived outside of a city generally lived close enough to use the city downtown. Their residential areas were really "sub" to a particular "urb." Since the war, this has not been true. Residences have spread far from central cities, and new downtowns have not been built. Instead, metropolitan facilities have been scattering or lining major roadways.

No one consciously decided that downtowns were not needed. It was just that each type of facility--office, college, hospital, store, etc.--was located by different groups without considering the over-all result. Usually, the cheapest, easiest-to-develop site was chosen; employees, students, patients and customers were expected to get there somehow. In most places, they get there by automobile or not at all.

There is still time, however, to consciously choose the location of most of the new metropolitan facilities that will be needed by the 20 million residents of the Region of 2000 who will live too far to use Manhattan as a downtown. We can even reshape to some degree the metropolitan activities of the other 10 million residents who will be living in the Core.

The basic choices for locating these new facilities are:

1. Continued spread and scatter, with only a little planned relationship of the facilities. (The planned relationships would be clusters of department stores in shopping centers or strings of department stores along a highway like Long Island's Miracle Mile; and office parks, planned sites for a number of office buildings like industrial parks for factories.)

2. Small centers, each with a variety of activities but not large enough to have all types of facilities of large enough size to provide full services. For example, hospitals in small centers would be too small to offer a full range of medical services, and department stores would be rather small for extensive choice. Probably there would be no legitimate theatres, concert halls or museums. There might be bus service but highly limited in schedule and territory covered because not many people would be using it.

3. Large centers with large enough market areas to support all types of metropolitan activities.

In a very large region, all metropolitan activities will not end up in only one of these three kinds of locations. Even if several large centers are built (number 3), there will still be some scattered office buildings and shopping centers (number 1), and there will be many small centers with a mixture of metropolitan activities (number 2). Furthermore, a "large" center may be one that serves anywhere from 350,000 to 3 million people, a "small" center, say, 100,000-350,000, so there would be differences among large centers as well as between large and small centers.

Nevertheless, by concentrating on large centers and organizing the Region to build them, this Plan could make a considerably different Region--we think much better--than would otherwise be built.

Advantages of the alternatives. The principal advantage of spread and scattered metropolitan facilities is that each can be built without lengthy planning by government or coordination between the builder and those who will be building other facilities. Each organization can choose its own site; each municipality can decide which facilities it will allow in. Despite local traffic jams at certain times, all the facilities can be reached by car and there will be enough parking space.

Small centers also can absorb all comers by car, but they are likely to require more lanes of expressway than either spread and scattered facilities or large centers. (See Chart 1.) Small centers almost certainly would be more attractive than spread and scattered development and much easier to make clean, sunlit and pleasant than larger centers. They probably would be more relaxed, less crowded, less bustle-y than larger centers. Small centers would require considerable coordination and planning if they are to work well but not as much as larger centers.

However, only large centers satisfy the needs of each metropolitan activity to the fullest, and their benefits seem to us to be worth the cost.

Location needs of each activity

"Headquarters"-type office jobs--those related to policy-making of large organizations--almost universally locate in large centers. There they

have a wider labor market for the range of talent needed, they are handy to outside services such as advertising agencies and specialized law firms, and there is a chance to keep up with what related organizations are doing. About 40 percent of the 1.4 million additional jobs in office buildings projected for the Study Area by 2000 are expected to be headquarters jobs.

One measure of how well the three different types of locations satisfy these needs of headquarters office jobs is the number of other persons at work that an office worker can reach within ten minutes of his desk. (This seems a reasonable trip for a business meeting during the day and roughly indicates the availability of business services and other necessary interchanges.)

Small centers and spread-scattered facilities work about equally well. For example, one of the 100,000 workers in the scattered work places in central Nassau County could get in his car and get together with any of 11,000 other workers within a ten-minute trip. In downtown Paterson, a small center, there are 36,000 employed persons working close enough to allow one to meet with about 9,000 others within ten minutes on foot, about as efficient for higher level office activities as Nassau County. But in Newark, the range of convenient services and talent within a ten-minute trip is twice that and in Midtown Manhattan twenty times. (Chart 2.)

For headquarters office work, the Newark-Manhattan range appears to be preferred.

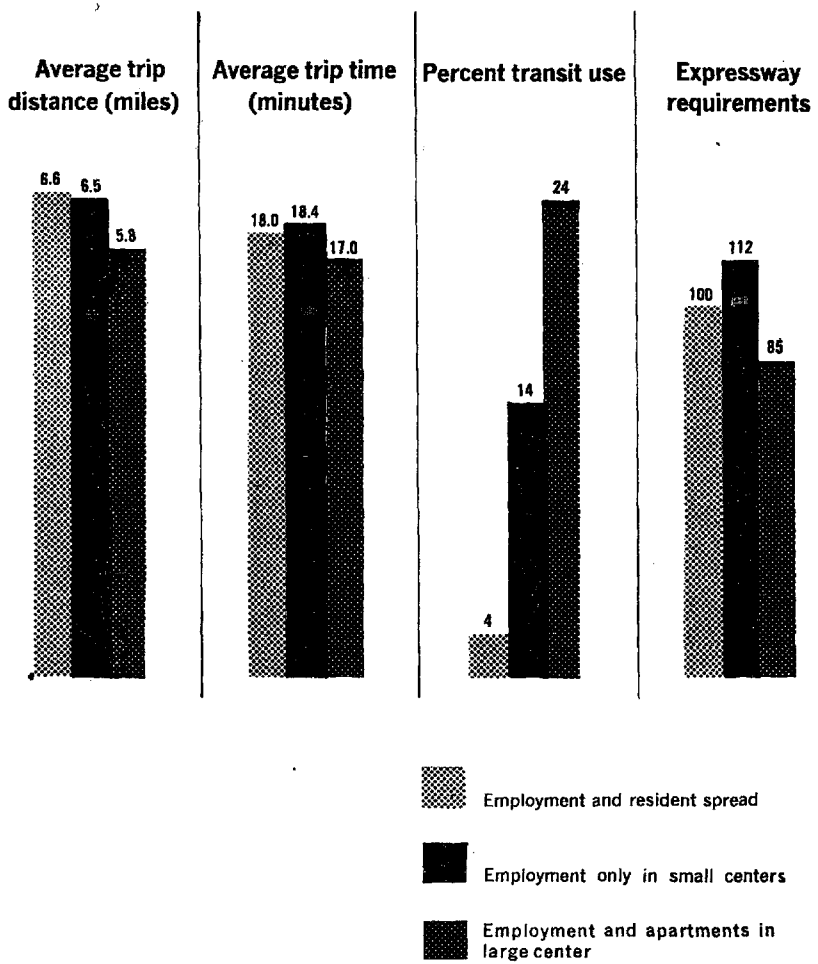
For more routine office work and sub-regional headquarters, small centers would suffice unless a firm needs a very large number of employees, when it would want to be in a large center (at the center of a large labor market), or unless it retains frequent relations with headquarters in Manhattan, when it would find a large center convenient because it could offer good rail service to Midtown.

Local offices. The office worker serving a local population, like the local accountant, lawyer, doctor, dentist, insurance agent, government clerk, usually does not need to relate to other office workers or outside services very frequently and so could be in any of these types of locations. But his clients would find it more convenient to reach him if he were in either a large or small center, where many of them would probably have their own businesses and where visitors could do more than a single errand at a time. In spread city now, a group of errands requires a series of starts and stops, parking, getting out, getting in, driving further, getting out, etc.

Higher education. Even assuming that every present college campus in the Region increased its enrollment by 50 percent between 1965 and 2000, we would still need more than 50 new campuses of about 20,000 students each--about three every two years. It is understandable, then, that those seeking sites for new campuses often choose large vacant tracts on the edge of present development to speed the process of establishing the new facilities.

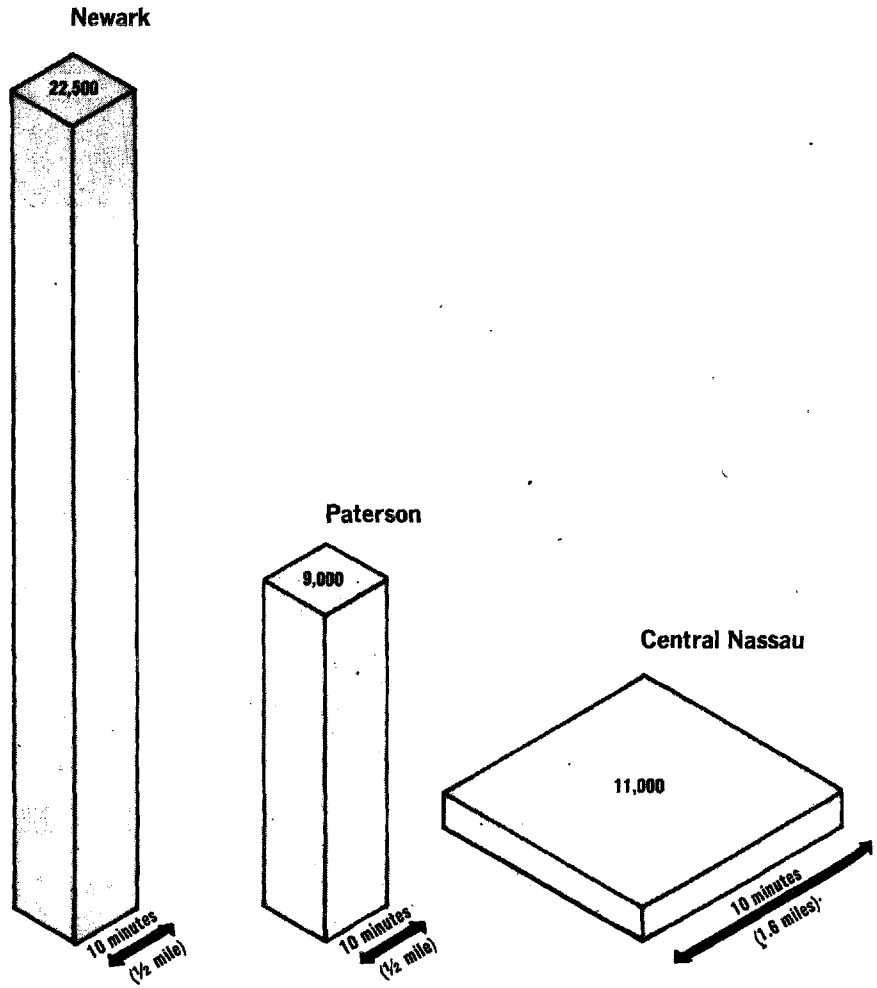
However, fifty large campuses scattered in an unplanned way would surely be a mixed blessing in the Region while campuses in metropolitan centers can contribute a great deal to the kind of metropolitan communities proposed in the Plan. Increasingly, colleges attract business and professional activities to them because the academic

chart 1
EFFECTS ON TRANSPORTATION OF DIFFERENT EMPLOYMENT AND RESIDENCE PATTERNS



Travel responses to the three patterns of location of metropolitan activities: spread-scatter, small centers and large centers. An area fifteen miles by fifteen miles was hypothesized — roughly the size of Nassau County. Bar 1 illustrates the travel likely if both jobs and homes are evenly scattered around the area. Bar 2 illustrates the travel likely if homes are evenly spread around the area but one-third of the jobs are located in five small centers. Bar 3 shows the probable travel if one-third of the housing units are in apartments clustered around a single large center in which one-third of the jobs are located. The projections are based on current travel habits under these different conditions.

chart 2
JOBS WITHIN A TEN-MINUTE SQUARE OF TRAVEL TIME



More of central Nassau County's 100,000 jobs can be reached within ten minutes than Paterson's 36,000 central business district jobs, even though Nassau's are spread over 25 square miles and Paterson's are within a single square mile — because the automobile can operate conveniently in Nassau. But to have many more jobs within ten minutes, a compact center is necessary. More than twice as many jobs are accessible within ten minutes by foot in downtown Newark than in central Nassau by car. In Manhattan, by foot and subway, 220,000 jobs are accessible within ten minutes.

world is making direct contributions to economic, political and social affairs. A campus in the metropolitan center therefore strengthens the center.

At the same time, the center contributes a great deal to the campus. Perhaps most important, it is almost certain to be the place best served by public transportation--in most areas the only place to which service is good at all. This, plus part-time jobs close by, is essential if the opportunity to go to college is to be extended to everyone capable of benefitting from it.

Located at the transportation hub and on rail service to Manhattan, a metropolitan center also would give the college faculty the widest choice of housing and would open the resources of Manhattan to the college. If community support is advantageous for college activities, strengthening the center and identifying the college with the center and community would certainly help the college.

Department stores. By focusing transportation and housing on a large center, more people are placed within convenient shopping range than would be within range of any department store in spread city. Under spread-city conditions, there is no obvious market area. Retailers must do the best they can to carve out a market area that includes enough people so they can provide the shopper with a reasonable range of goods. Yet they must be careful not to go so far from the department stores closer to the center of the Region that a competitor can move in between. In other words, where there is no clear focus of housing and transportation to create a fairly clear market area, department store markets tend to be smaller than they would be in metropolitan centers, though no closer in travel time, on the whole.

Health facilities must be planned to suit future medical practices, not just present ones. The new concept of medical care anticipates "a common site of a medical service center that would offer a wide spectrum of services and facilities for both the in-patient and out-patient. This center would include a hospital offering varying levels of care for short-term as well as long-term patients, housing for the aged, a health service center containing offices for both officials and voluntary health agencies, facilities for private physicians' offices, and a motel for ambulatory patients and for visitors of in-patients." This was expressed by the President of the Hospital Review and Planning Council of Southern New York; it is the view of many medical experts who are looking ahead.

If medical services are organized in that way, they will need large centers.

First, a population of at least 500,000 is needed to support the full range of medical specialties and equipment that can be made available--for example, open-heart surgery and the cobalt bomb.

Second, the medical center must be accessible to out-patients. With increasing numbers of aging and mentally disturbed among them, public transportation and taxi must be available. Good public transportation is only possible in a large center.

Third, many of the unskilled hospital employees will not be able to afford a car and will need public transportation to get to work. Many employees also require easy trips to other metropolitan activities--adult education or college courses to upgrade their skills or keep up with professional

knowledge, shopping and entertainment for nurses and interns living at the hospital.

Fourth, if the offices of health agencies are to be part of the complex, they will want to be close to other offices with which they can be expected to have links.

Central libraries will increasingly be sources of all kinds of information, available by computer. Again, for the widest possible library services, the larger the population served the better. In addition, librarians have long observed the importance of being in the center of things, where many people pass by, if their service is to be fully used. Both characteristics fit the large center.

The arts--theatres, museums and concert halls--as well as professional sports have traditionally required two things: enough community leaders to organize and subsidize them and enough patrons to justify the effort and keep the subsidies manageable. In spread city on the outskirts of the Region's present development, where there is no center to create a metropolitan community, there seems to be considerable difficulty in organizing first class cultural institutions. Although Nassau County has more than $1\frac{1}{2}$ million persons and Suffolk County has about a million, they have no first-quality symphony, museum, opera company, professional baseball, football or hockey. (They do at the moment have a repertory theatre and professional basketball.) Many metropolitan areas outside the New York Region with no more population (e.g., Cleveland, Minneapolis, St. Louis, Houston) have almost all of these.

Nor does it seem that this is because Nassau and Suffolk County residents rely on New York City for this recreation, according to the bits of evidence we have. For example, a Regional Plan survey of persons entering museums (May 1967) indicated that more than twice as large a percentage of New York City residents attended three Manhattan museums (on a Thursday and a Sunday, combined attendance) than Nassau and Suffolk residents. Only Bergen County residents attended these museums in anywhere near the ratio that New York City residents did, and they, too, were fewer. Since there are undoubtedly many more college graduates in the suburbs, and they generally are considered more likely to attend museums, one can conclude that suburban residents are simply missing out on cultural facilities they probably would use if the facilities were available in their own metropolitan communities.

Experts in financing the arts say that it takes about a million residents to support a first class symphony orchestra, museum or repertory theatre; $1\frac{1}{2}$ million to support opera. Again, only a large center which creates a large urban community is likely to achieve the organization necessary.

Of course cultural activities will not be restricted to these top professional institutions. There will be experimental and avant-garde groups--the equivalent of off-Broadway and off-off-Broadway--in all the arts. But the experimental theatre is not far off Broadway. The experimental in the arts, even more than the hit musical comedy, seems to need the large center.

Both establishment and experimental arts also need a source of talent and ideas springing from amateur and local professional groups that should exist throughout the Region. Those metropolitan areas which will have no more than half a million residents need not forego the theatre or galleries for the display of local artists and travelling

exhibits. We can anticipate a flowering of the arts in small communities and large.

Nevertheless, many groups have learned when they tried to put together funds and talent to achieve a really high quality cultural institution, that this flowering often is overestimated. Talent and backing are still found, on the whole, in large communities and busy urban centers.

Links among the activities

Only in centers can all of these activities be mixed together. Office establishments can tap college faculty as consultants and use the library data center. College students can find convenient jobs and use the cultural facilities and library. Office workers can take college courses. Shoppers can go to museums. Housewives can combine a trip to the doctor with a matinee at the theatre. These are only examples of the many combinations that are likely. The museum survey showed that three-fourths of those attending the Manhattan museums and Newark Museum on a Thursday did something else on the same trip, and two-thirds of those attending the Brooklyn Museum.

The whole: greater than the sum of parts

Because of this convenience in reaching activities and the constant reminder that they exist (for example, office workers walking by a theatre), many more people will take advantage of them. This could change the whole tone of life in the Region.

And each activity contributes to the excitement of the place, to the kaleidoscopic color and the unexpected.

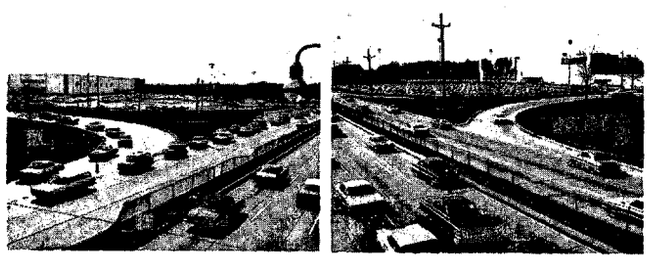
There is much more chance of the facilities being attractive if they are designed in relation to each other than if they are scattered or strung along highways shouting with neon at the speeding motorist.

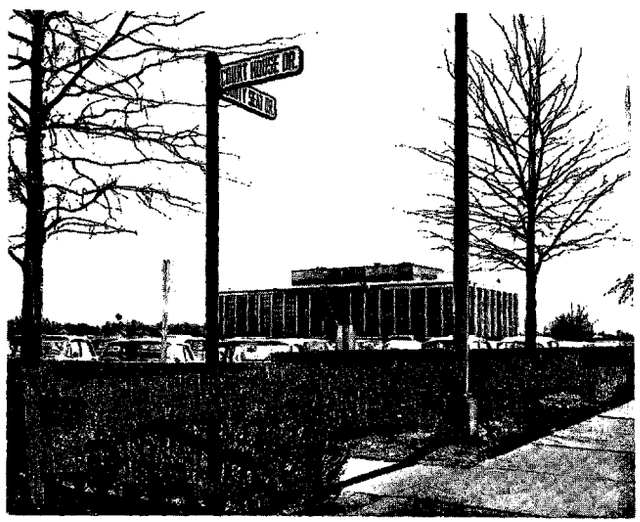
Public transportation becomes possible, saving expressway lanes that otherwise would be needed.

Perhaps most important, only a center which provides most of the metropolitan activities used by the residents of the area will create a genuine metropolitan community, capable of organizing what does not spring up spontaneously--in addition to culture and sports, community institutions for those in need, for civic betterment and for participation in government. Spread city works against a sense of community and therefore against a sense of responsibility for more than a neighborhood (or a school district if the family has children). The local government--village, town, township or borough--may not even cover the same area as the school district. This lack of relationship to the place is even more true of businesses than of individuals. They draw people together from miles around for just one purpose and send them home again. Spread city businesses, unlike those in an identifiable community, often take no part in community affairs. Many churches in spread city are in a similar position. By contrast, the metropolitan community can provide a framework within which individuals and organizations can act responsibly.*

Larger-scale local government (supplementing present local governments) might follow the gradual coming into being of this metropolitan community, along with newspapers, TV and radio. By serving the same area, they reinforce it as a community.

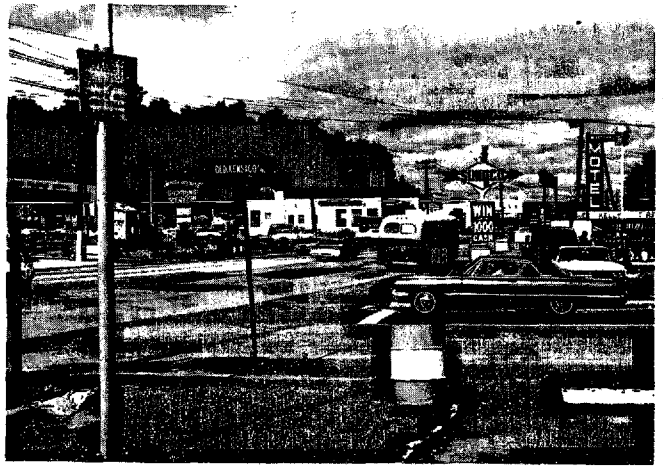
*For example, until the United Fund recently organized countywide in Westchester, a number of large businesses made little contribution to any community chest.

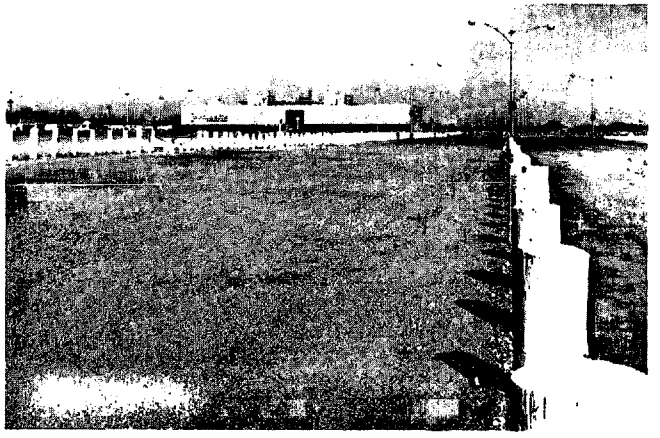


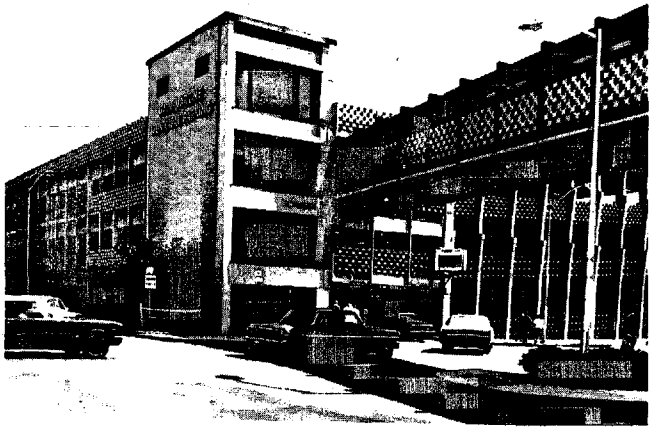


Two disadvantages of spread-scatter development compared to metropolitan centers: broken links between related activities and much less attractive appearance.

Alexander's looks close to Gimbel's (top) at the Garden State Plaza, but in fact it is separated by a busy highway (bottom) and a fence erected when people were killed trying to cross the road to comparison shop. Similarly, law offices traditionally have been a short walk to the court house, as in Mineola, Nassau County--before the new court house was built and surrounded by a large parking lot.







Two inherently ugly characteristics of spread-scatter: 1. commercial roadside development (upper left), which almost always leaves a jumbled and ragged appearance. The reason is that each enterprise has to shout its wares to the speeding motorist, and each tries to compete for attention against the other rather than trying to relate one sign or building to the other as in downtown White Plains (below). 2. Parking fields, almost always used for spread-out facilities, are seldom beautiful, empty or full. Parking structures can be rather attractive, by contrast, like this one in White Plains.

Location of centers

Where should centers be located?

Map 2 shows the rough outlines of metropolitan communities which would be created by organizing metropolitan activities into a major center in each area. Most of the metropolitan centers will be located where smaller centers are now. Where the location of the center seems fairly obvious, it was indicated on the map. However, these locations will be discussed with local and county officials over the coming year and some that are indicated may prove to be inferior to other locations.

Priority: three centers in the Core

First attention should be given to building up the three largest centers in the Region's Core: Jamaica (Queens), downtown Newark and downtown Brooklyn.

These are important because the older cities need strong attractions to hold residents who can afford to move out. Residential areas within easy reach of these three centers can be made satisfactory for middle-class families. But without any strong motive to live in the area, which a center of many jobs and other activities can provide, the middle class won't live there anyhow. Of course, it will take more than these centers to attract and hold middle-income residents--people can commute in from outside to the jobs. But without strong and attractive centers in Brooklyn, Queens and Essex County, it is unlikely that anyone who can afford anything else will live there.

Even if middle-income residents are not influenced by the centers to stay in the city, adding jobs will help these areas survive their problems by keeping employers and employees concerned about the cities and in a position in which they might be stimulated to work on the cities' problems.

Increasing jobs and metropolitan activities such as health services and colleges where they can be reached easily, adjacent to low-income ghettoes, also is important immediately.

Furthermore, these centers might provide a basis for organizing meaningful decentralization of New York City government.

As a bonus, the cost of adding jobs in these three places is cheaper than putting them any other place because subway and railroad capacity is available and some utility capacity as well. (Rail capacity is available in a reverse direction from the main traffic flow and also on trains that can empty in these Core centers and fill up again to go to Manhattan.)

Advantages for offices. Of course none of this would be sufficient to make centers in the Core work if they were not also beneficial for the businesses likely to go there. All three of these places are excellent locations for office jobs of all types. Headquarters jobs can go there because they are very close to Manhattan. Jamaica will soon be little farther in time from Midtown Manhattan's East Side (via the Long Island Rail Road) than Downtown is by subway; Downtown Brooklyn is nearer Downtown Manhattan than Midtown is; and Newark is little farther in time from either than one is from the other.

These Core centers also are good places to assemble large numbers of employees for more routine office tasks and for district or regional

offices as well as for headquarters. Even though the three centers are immediately surrounded by a predominantly blue-collar labor force, very large numbers of white-collar workers already live within easy commuting distance in Brooklyn and Queens. Transportation improvements planned and probable as the centers build up will add to the labor pool. For example, more than 250,000 white-collar workers already live within a half-hour trip to Jamaica. By comparison, there are only 153,000 white-collar workers living in all of Westchester County. (See also Table 3.)

Table 3

EMPLOYED WHITE-COLLAR WORKERS LIVING WITHIN ONE HOUR OF SELECTED DOWNTOWNS, 1960

	Jamaica	Manhattan*	White Plains	Newark
Stenographers, typists, secretaries	171,000	188,000	123,000	112,000
Receptionists, file clerks, other office clerks	240,000	265,000	164,000	148,000
Professional engineers, technical	38,000	24,000	34,000	32,000
Accountants, auditors	40,000	36,000	29,000	22,000

*South of Central Park
Source: U.S. Census of Population, 1960.

How related to neighboring residents? While it is true that most of the work force living immediately around these three locations is unskilled,
1) many can be trained for office work (in fact, with the Region's economy switching so rapidly to office work from factory work, many will have to be trained for office work to have sufficient job opportunities),
2) opportunities for Negro-owned businesses, which many aid programs are stressing now, would be enlarged by these centers near Negro neighborhoods,
3) for every four office jobs there is generally one service job, usually requiring less skill or different skills than office work, and
4) the centers will improve transportation to and from the area, which neighboring residents can use to travel to other jobs.

Relocation of existing businesses and housing may be difficult in downtown Brooklyn and Newark. (In Jamaica, our study showed, it is not a serious problem if new facilities are carefully sited and designed.) Everyone who must move because of new development, tenants as well as owners, should be generously compensated and helped to relocate in at least equally satisfactory circumstances. The extra costs of generous compensation will be infinitesimal in the total cost of building the center and may even save expense caused by delay and resistance to the plans. Both the individuals affected and the community as a whole must feel that redevelopment will benefit them, in the net.

How much growth? We propose that about 150,000 office jobs be located in these three Core centers between 1965 and 2000, more than doubling the 108,000 there (59,000 now in Newark, 40,000 in Brooklyn and 9,000 in Jamaica). The three now

map 7

AREAS WITHIN 30 MINUTES OF JAMAICA
BY LONG ISLAND RAIL ROAD

- **At present speeds.** Persons living within this area can reach Jamaica within 30 minutes total travel time (combination of auto and/or bus plus railroad). Over 180,000 white-collar workers live in this present commutershed (including some of those living within the area of a half-hour subway trip).

- **At future speeds.** Persons living within this area will be able to reach Jamaica within 30 minutes total travel time (combination of auto and/or bus plus railroad). This enlargement of Jamaica's rail commutershed planned by the Metropolitan Transportation Authority will make it possible for many more workers, including those from areas of Nassau County, to have a short journey to work in Jamaica. But, in order to attract this growing labor force, office buildings must be located so that commuters can walk easily to them upon arrival by railroad in Jamaica.

have nearly 7 percent of the Study Area's office jobs. Under this proposal, they would have about 8 percent in 2000.

But will offices go to these centers? A Regional Plan survey of corporate executives taken before the idea of a Jamaica Center became well known around the City indicated that few had ever considered locating an office there. Manhattan or a suburb were the alternatives most of them had in mind. When the advantages of Jamaica were described, many showed immediate interest. Most of the others felt the idea was reasonable, but they did not need office space.

The Core's transportation advantage and the immediate availability of white-collar workers were the most persuasive arguments to businessmen. Reinforcing them is the strong interest of business in strengthening cities and helping the unemployed and underemployed. Business has not seemed to be deterred by city upheavals either. Both Newark and New York City have continued to attract new offices despite them.

Other metropolitan activities should grow along with office jobs. The decisions to put York College in Jamaica Center and the New Jersey College of Medicine and Dentistry in Newark were substantial steps toward growth of these centers, following the concepts of the Second Regional Plan.

Other centers in the Core

New metropolitan centers also might be developed for the Bronx and Hudson County. Office jobs, mainly those serving the local needs of these areas, can be expected to increase--jobs that would go somewhere in these areas in any case and should cluster in the center. Harlem also may get some office jobs. However, these areas traditionally look to Manhattan and Newark as their downtowns, and it does not seem likely that they will be able to compete with the other Core centers for the national market office establishments or the more specialized metropolitan activities, such as the arts. Nevertheless, if they organize to attract office jobs, they very well may get them. Office jobs will go to places that provide for them.

The Manhattan central business district

Nearly a third of the Study Area's recent growth in office jobs (1959-65) has located in the center of centers, Manhattan below 59th Street. If land in the Manhattan central business district (CBD) could be assembled more easily--and there are ways to ease the process--and if transportation capacity were enlarged--which is now being undertaken by the Metropolitan Transportation Authority--it seems very probable that an even greater share of the Region's office jobs would be located in the CBD. Since 40 percent of the 1.4 million more office jobs projected by the year 2000 are expected to be headquarters jobs, for which Manhattan is particularly suited, continuing strong demand for office space in the CBD can be expected.

Should jobs increase in the CBD? The efficiency of one office location compared to another has never been measured carefully, except perhaps for particular companies. No one knows whether grave diseconomies would ensue if enterprises were not allowed to locate where they choose to, in the CBD, for example. However, in considering the advisability of increasing office jobs in the CBD, we surely must give some weight to the considered judgment of so many business, government, civic

and professional organizations--many after a good deal of study--that their activities benefit from being there. And we should place some value on the system that allows enterprises as free a location choice as possible.

So one argument in favor of more jobs in the CBD is that enterprises want to go there. In addition, many of the arguments for more office jobs in Jamaica, Brooklyn and Newark apply.

Some also argue that the CBD can absorb a large number of office jobs more easily than the suburban and outer areas of the Region--that the tremendous number of offices that will locate in the Region in thirty-five years could make a mess of these newer areas. This probably depends on the actions of people living there. If they organize metropolitan centers and prepare for a large number of offices, they may be able to absorb these jobs at least as smoothly as the Manhattan CBD can. But if they are indifferent or hostile so the office buildings are simply poked into any spot where the builder can find a tract that is relatively cheap, easily obtained and appropriately zoned, then the Region would be better off if a large segment of the jobs did go to the CBD.

Against more CBD jobs, the transportation cost for each additional employee in the CBD is greater than for adding them anywhere else in the Region: on the order of $2,500 for every added employee, compared to about $2,000 in an outlying metropolitan center and even less in one of the proposed centers in the Core. Current Metropolitan Transportation Authority plans for improving transportation to the CBD will expand capacity only enough to diminish overcrowding. The transportation investment will have to continue at a very high rate over more than one decade if jobs are to increase in the CBD.

Furthermore, travel to Manhattan jobs already averages some 30 minutes longer than commuting time to jobs elsewhere in the Study Area, and more than half of the 1967 Regional Plan conference respondents working in the CBD said they were dissatisfied with their trip to work compared to about a third of the total respondents. On the other hand, the prospects are for greatly speeded, more comfortable and more convenient commuter railroad service and more comfortable and generally attractive subway service, with the possibility of a totally new and very much faster type of transit toward the end of the century.

Under these circumstances, Regional Plan's stance is this: The public should actively encourage the location of offices of all kinds, including headquarters activities, in the Core centers outside Manhattan and should encourage areas outside the Core to organize centers for emerging metropolitan communities and actively recruit office jobs of all types. These outlying centers should be linked with Manhattan by fast all-day rail service to maximize their attractiveness for enterprises with regular links to the CBD.

But we recognize that for many enterprises, there is no good substitute for being right next door to the tax experts, lawyers, advertising agencies, federal and state government administrators and other special services for which Manhattan is the prime location, and we have concluded, after an intensive design study, that the CBD can readily--even attractively--absorb a large increment of added office employment.

The Plan therefore anticipates an increase of some 400,000 jobs in the CBD. This assumes a rise of about 500,000 jobs in office buildings, an accompanying rise of about 125,000 service workers (store clerks, restaurant workers, letter service employees, messengers, cab drivers, etc.) but a continuation of the decline in blue-collar manufacturing and wholesaling jobs that has been going on for many years. (Manufacturing production jobs in Manhattan declined by a third, 131,000, between 1947 and 1963.) We project the blue-collar decrease, 1965 to 2000, will be about 200,000.

There are now just over 2 million jobs in the CBD, so the net job increase, 1965-2000, would be about 20 percent.

Centers outside the Core

Office jobs. Even if the Core and the CBD absorb two-thirds to three-quarters of a million more office jobs over the rest of the century, the remainder of the Study Area will be absorbing about as many.

These new metropolitan communities should try to attract as many as possible of the jobs its own residents will be working at, varied jobs for a varied population. The more residents working in the market area of the center, the more cohesive a community it will be.

But the many advantages of locating jobs close to the center of the Region must be weighed against this principle and temper it.

Other metropolitan activities. In the Inner Ring of the Region (Map 1), the belt of older suburbs, there probably will be little population increase over the rest of the century (Table 1). Proposed centers will achieve their increased magnetism mainly by attracting office jobs. As office jobs grow, other metropolitan facilities will come in even though the total population in the metropolitan community is not growing. Some of these facilities have lagged behind per capita needs in the Inner Ring and should be increased for the same population, e.g., hospital beds and libraries. In other situations, growth of per capita wealth will support more metropolitan facilities, e.g., department stores. In addition, trade may be attracted from the stores along the roads as activity builds up in the center--improving both transportation and aesthetics.

The Intermediate Ring includes areas that only recently began to grow rapidly in population and others that soon will be growing. Facilities to serve the growing population, department stores, hospitals, perhaps a college campus and office services needed by the local population, all will be looking for sites.

These facilities will come to the area in any case. The only question is whether they go into a planned center or not.

Looking back at Table 2, notice how fast the Intermediate Ring areas will grow. Many counties will double, some will more than double the 1965 population by 1985. Steps will have to be taken almost immediately to gather together the metropolitan facilities or they will quickly spread throughout each area, and the opportunity to form a metropolitan center and keep the still rural places from scattered urban facilities and attendant traffic may be lost.

The cost of large centers

The main price that must be paid for large centers is organization and the need to be coordinated. Governments must plan for centers and all levels of government must agree that metropolitan facilities should be channeled into the center.

The agency planning a new building, whether a public university or a private office developer, now finds it easier to purchase a vacant tract without any clearance of existing structures and relocation of tenants, without detailed zoning requirements, without having to assemble a number of small parcels of land, without fitting a design to a larger conception. If agencies are to want to locate facilities in centers, the coordination must be made as simple as possible.

A public development corporation which can assemble the land in the center and sell or lease it to developers can greatly assist in this.

Limit on driving. To some, a disadvantage of large centers might be a limitation on driving. Perhaps half of all the people entering one of the larger metropolitan centers--100,000-200,000 employees and half again as many persons coming for other purposes--will walk from nearby apartments or come by bus or train.

Will people mind not driving?

Transportation research in this Region indicates that how people travel to work is not as important to them as the kind of place they live and work. They readily adjust their mode of transportation to the place. The most important determinant of whether a person drives an automobile to work or not is the density of his work place--how many people work within the square mile or so where he works. The second strongest determinant is the density of his residential area. Clearly, how one travels was a secondary consideration to the choice of job and home.

Other research suggests, however, that buses are not ridden to work voluntarily but are mainly taken by those who cannot afford to drive--in contrast to railroad riders who could afford to drive. But new bus designs are being developed, and if they run on their own right-of-way, bus riding will be improved.

Dollar costs. It is very difficult to figure the total dollar cost of building and maintaining large centers (including extra administrative costs) compared to the cost of smaller ones or spread and scatter. The costs to businessmen as well as to government, actual expenditures as well as damages to the environment, present costs (for example, building highways) as well as future (for example, time and money invested continuously in travelling) all must be compared. No one has tried to total all the costs, to our knowledge, and the relevant partial studies seem to show that the costs are about the same for the three patterns--spread-scatter, small centers and large. The decision, then, must be made on bases other than cost.

Building metropolitan centers

Why not spontaneous centers? If centers are so good, why aren't most of the metropolitan facilities going into centers now instead of spreading and scattering?

The main reason seems to be that not enough people have yet seen their value to begin the big job of organizing them. Where there is a chance to locate an enterprise in a metropolitan center that is organized and recognized as a center and which has room for expansion, enterprises have chosen them: witness the rapid growth in Manhattan, Newark and White Plains.

Even where these essential elements are lacking, there seems to be a thrust toward centers. For example, shopping centers are adding small office buildings and theatres, and a host of different metropolitan activities often are located close together though not in a planned, coordinated and compact way. Central Nassau County is an example. The County planning department there is studying ways to tie the facilities together to get some of the benefits of a planned center, but in other instances this spontaneous coming together doesn't make a center. It only indicates that entrepreneurs recognize advantages in propinquity.

A center cannot start spontaneously because it usually requires combined government and business decisions. Business must be convinced that governments will take the public steps needed, and governments must have confidence that if they do, business will respond and reinforce them.

Jamaica is a good illustration. The decision to locate York College there and the Metropolitan Transportation Authority (MTA) program for subway and railroad improvements, particularly the City-MTA agreement to tear down the elevated very soon, are providing some of the confidence business needs that government is determined to have a center in Jamaica. Of course the declaration of support for Jamaica Center by the Mayor, City Council President, City Planning Commission Chairman and Borough President also were essential. On the other side, the combined civic-business organizations, Greater Jamaica Development Corporation and the City-wide Economic Development Council, have assured governments that there is hard-headed business confidence in the area's potential. All potential centers probably will need moves of these kinds to maintain mutual public-business assurance until the momentum builds up.

Steps needed to organize a center. Though differing in appearance, functioning and composition and in the process through which they are developed, major centers everywhere in the Region will need to take these steps:

1. A leadership group must initiate the idea of a center, do market research and design plans, survey response to the idea of a center and its location, and persuade entrepreneurs, both public and private. This group could be an official state, city or county agency or a civic group.

Most simply, the initiative could be taken by county planning agencies. Working with regional and state planners (Tri-State Transportation Commission, state planning units, and state transportation departments), the county planners should identify the site of a metropolitan center (and smaller centers that would supplement it), and the county could take the lead in achieving agreement of public authorities and stimulating the interest of private investors. However, if the county does

greater benefits, or the kind of development we can see on the fringes of every urban area in the country now: widely spread, meaninglessly scattered, ending the beauties of the countryside in every corner but bringing few benefits of urban life.

This is what will happen without planned centers in a growing region.

IV. HOUSING

Regional planning and housing

Traditionally, the housing pattern has been left to municipalities to determine, through tenement laws, zoning ordinances, subdivision regulations, building codes and public housing programs. In the Study Area, the housing mosaic has been pieced together by 775 units of government, each looking only within its own boundaries.

Nevertheless, most of the Region makes up a single housing market (though there are local pressures within it). People working in the center, the Manhattan central business district (CBD), can and do commute without too much discomfort from almost any but the outermost counties, so they can choose a house almost anywhere in the Region. People working elsewhere in the Region cannot choose from as wide an area as CBD employees, but travel conditions would allow them to seek housing in many municipalities. As a result, housing costs and quality over the whole Core, Inner and Intermediate Rings (Map 1) are related, and they influence where in the Region people live. Furthermore, the total housing supply of various types ends up as the sum of what each municipality allows to exist without conscious attention to the Region's spectrum of housing needs.

Housing has a regional impact aesthetically, also. Most of what one senses as the Region's pattern, some 80 percent of the developed land area, is made up of housing and the yards and landscaping around it.

Housing also affects the Region's functioning. By far the majority of the Region's trips are to and from homes. Therefore, residential patterns relate closely to transportation efficiency and should be planned in relation to it.

It also affects the economy. Many of the low-skilled jobs have been moved from the old cities of the Region, but the housing supply has kept low-skilled workers, particularly Negroes and Puerto Ricans, from moving to hold these jobs. Some unemployment in the center and some shortage of employees in outlying plants seem attributable to this.

Present housing policies

In Regional Plan's extensive analysis of 1960 zoning ordinances (Spread City, 1962), we found that zoning on vacant land surrounding development required that well over 40 percent of the potential house lots had to be half-acre or larger; well over 20 percent had to be an acre or larger. From 1957 through 1960, the average lot size on newly subdivided land in the Region was about half-an-acre, about double the average lot size of the early 'fifties. Since 1960, all the evidence indicates, land has generally been "up-zoned" to require still larger lots.

Zoning debates in outlying municipalities indicate that the usual purpose of large-lot requirements is to slow and limit the tide of families with school children entering the district. At the same time, large-lot requirements raise the cost of housing in the area. This raises the tax assessment per household, also helping with school costs. Also, it raises the income level of those who can afford to live in the community, perhaps another

motivation. Most zoning ordinances prohibit the relatively inexpensive kinds of housing for families with children: garden apartments, attached housing and large-scale housing developments on small lots. (Garden apartments are being allowed in many places now but rarely with units large enough for households with children.)

Building codes containing specific, outdated construction requirements and differing from one municipality to another further add to housing costs.

Current zoning and building code provisions combine to exclude the construction of new housing in a price range of roughly $15,000 to $25,000 that otherwise probably would be built with private financing within a reasonable commuting distance of most of the Region's jobs.

Finally, publicly-aided housing for low-income families is built on the initiative of the municipality and costs the local government money, if only in tax abatement. Therefore, it is not available to all who need it. And since municipalities do not voluntarily build subsidized housing for other municipalities' poor, local responsibility for public housing also contributes to confining low-income families to the areas in which they happen to have settled.

Six regional housing problems

At least partly as a result of these policies, the Region has six serious housing problems:

1. Obsolete housing stock. The rate of demolition of housing in the 1950-59 decade in the Study Area ran only 60 percent as high as in the nation as a whole, though the housing stock here probably is older on the average than in the nation and population growth was slightly slower than in the nation, which should have allowed some leeway for renewal. There are still 335,600 households--probably close to a million people--living in New York City old-law tenements, built for new immigrants before 1901 and declared obsolete in that year. To eliminate the housing that will probably become too run down to rehabilitate over the coming thirty years, the demolition rate in the Study Area would have to rise more than 50 percent. It would then just reach the national average of the last decade.

In addition to poor housing stock, there are miles of obsolete neighborhoods in the older cities where the housing is in repair but more light and play space and relief from row on row of close-set houses are necessary.

Again, the tight housing market in the lower-middle-income range inhibits neighborhood redesign with selective demolitions and housing rehabilitat

2. Enlarging ghettoes. Lower-middle-income and low-income families are confined almost entire to old cities. More than 70 percent of the population in households with less than $5,000 a year income were living in New York City, Newark, Hudson County, New Jersey, and eight other older cities of the Region in 1960, though these places had only 55 percent of the Study Area's population.

Since poverty in our Region affects a much larger proportion of Negro and Puerto Rican famili than white non-Puerto Ricans, the confinement of the poor in the Region's older housing helps to create racial and ethnic ghettoes as well. For example, two-thirds of the Negro households in New

York City had incomes under $5,000 a year, according to the 1960 Census. In addition, there is almost certainly a set of practices discouraging Negroes who can afford suburban housing from getting it. Statistics tend to substantiate allegations of discrimination. The result is that 84 percent of the Region's non-white and Puerto Rican population lived in the ten older cities and Hudson County in 1960.

New York City's Negro and Puerto Rican population will increase by more than 400,000 between 1967 and 1975 by natural increase alone--more births than deaths--in addition to any in-migration that might take place. It will increase 1,150,000 by natural increase, even with no net in-migration, between 1967 and 1985, just eighteen years. If only Negroes and Puerto Ricans are unable to find housing elsewhere in the Region, New York City's population will be 43 percent Negro and Puerto Rican in eighteen years (assuming a stable total population and no migration to the City). For Newark, the natural increase of Negroes and Puerto Ricans will be about 120,000 by 1985, leaving that city's population 90 percent Negro and Puerto Rican if only whites move out (again assuming a stable total population and no in-migration). Put another way, to keep today's massive ghettoes in New York City and Newark from growing, more than a million and a quarter Negroes and Puerto Ricans must be housed in the suburbs by 1985--more if in-migration of Negroes and Puerto Ricans continues, which seems likely.

3. Limited housing choices. Even those who can afford new housing find their choice of types and prices limited. Over wide areas outside the older cities, apartments of any kind are prohibited. A couple might spend twenty years raising children in a community only to find they can no longer live there when the children leave if they want to move to an apartment.

There is also evidence of more demand for one-family houses on smaller lots than are available.

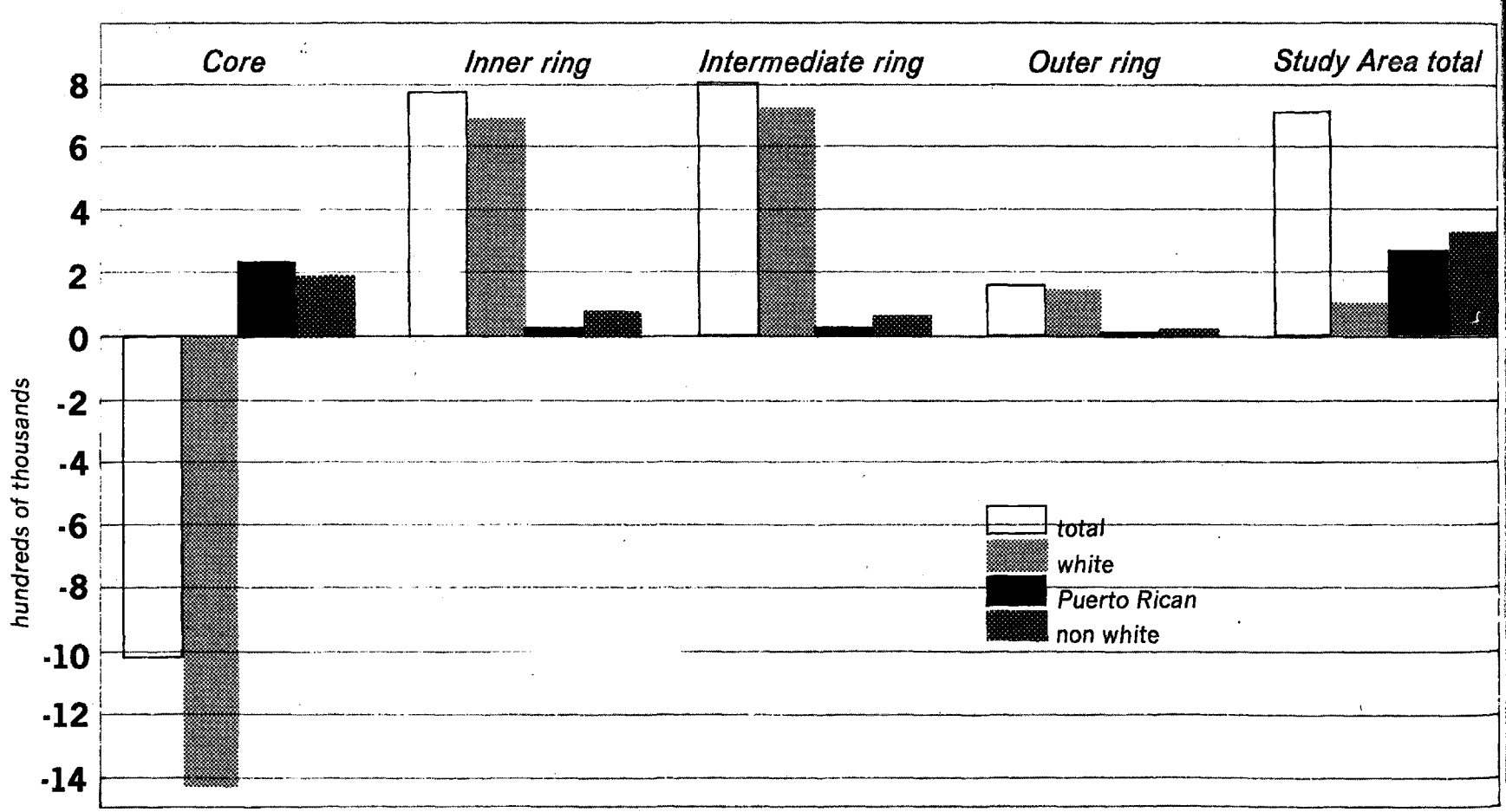
This is not to imply that all municipalities are zoning improperly. But the cumulative effect of all local zoning ordinances prohibits builders from satisfying the housing demand.

4. Extra land urbanized. Large lots hurt the Region as a whole by bulldozing more countryside than is necessary and spreading homes so that interaction is less efficient. Yet people are now encouraged rather than discouraged from buying extra land around their house. A half-acre lot zoned for a single house sells for little more than a quarter-acre lot zoned for one house. A family may be glad to have the large lot at that deflated price but not at its real value. In areas zoned for quarter-acre lots, where the price is closer to a free market value, few people would buy an extra lot to get the additional yard. Then it costs more than they feel it is worth.

The price of a large lot does not reflect the social cost either. Many extra costs of spread development are not placed directly on the householder so that he sees its effect. For example, his mail and milk delivery, his refuse pick-up, his utility lines cost more because of greater distances, but he personally does not pay the extra costs.

Because the housing industry has been forced to build on large lots, there has been no incentive to design houses and neighborhoods of higher densities with many of the qualities for which people now like large lots: a sense of spaciousness

chart 3
NET MIGRATION OF WHITES, NON WHITES AND PUERTO RICANS BY RINGS OF DEVELOPMENT, 1950-1960



(which need not require each lot to be spacious), privacy of both sight and sound indoors and out, an over-all sense of greenness in the neighborhood, convenient play space for children, a sense of individuality in the house. Had land been selling for its full economic value, builders probably would have competed to provide good design at tighter densities, so the Region would have had better living conditions on much less land.

5. Functionally sloppy pattern. Housing does not relate well either to jobs or transportation.

While unskilled workers are confined to the older cities, for the most part, unskilled jobs are moving out of the old cities. Highly-paid jobs have continued to locate in large numbers in Manhattan and Newark, but close-in large-scale renewal to standards that upper-income families with children would accept has been very difficult, partly because there is no relocation housing for families now there. (Also, see Chapter V.)

In many parts of the suburbs, the housing pattern makes it impossible to have public transportation though many people need and want it, particularly when the alternative is an additional highway through their area.

6. Aesthetically poor pattern. Driving through the spread-city portions of the Region, one has a sense of being nowhere in particular. There is no interesting variety telling you where you are and giving a sense of the place. Metropolitan centers are most important in providing a clear image of the area, but housing, which covers most of the land, should carry the image throughout the metropolitan community by responding to the center. The appropriate response--functionally as well as aesthetically--is like the response of iron filings to a magnetic field. Housing should cluster closely together near the magnet and gradually spread farther apart as the distance from the center increases. The older suburbs illustrate this pattern on a smaller scale. Apartments surround the railroad station and the largest lots are farthest from the station. This pattern on a metropolitan community scale would convey a sense of where one is at almost any point.

The common thread in all of these regional concerns about housing is density. Design of subdivisions is a local planning concern, but how many people live in each square mile is a regional issue.

Regional housing policies

In response to the six problems, the following regional housing policies should be established:

1. Housing supply should be allowed to meet housing demand in type and density, research on lowering constructions costs should be encouraged, and financing aid should be provided where required to attain metropolitan communities that are balanced economically, racially and ethnically.

2. Much more opportunity should be provided families with incomes below $10,000 a year to live in the newly-developing areas of the Region if they choose and for families with over $10,000 a year income to find satisfactory housing closer to the center.

3. Housing density should relate to accessibility--to transportation, both present and potential, and to places where many people want to go--mainly present and proposed urban centers.

Particularly apartments for small households should be part of the centers themselves, and other apartments and higher-density one-family house neighborhoods should be close to the centers. Altogether, projecting present preferences by age, household size and income, residents of the Study Area will want about 1.6 million apartment units between 1965-2000, about 43 percent of all housing units that will be built. Density patterns should aim at providing both an efficient and an image-able and attractive Region.

4. Obsolete housing should be replaced at a much faster rate, but housing of comparable cost and better quality must be available for those relocated. More than half the present housing stock in the Core is or seems likely to become inadequate over the rest of the century. This extensive reconstruction should provide opportunity to redesign old city neighborhoods, to open them up and make them more distinctive and attractive.

5. The Region should be kept as compact as possible without sacrificing the spaciousness people actually desire and are willing to purchase at its true economic value and social cost.

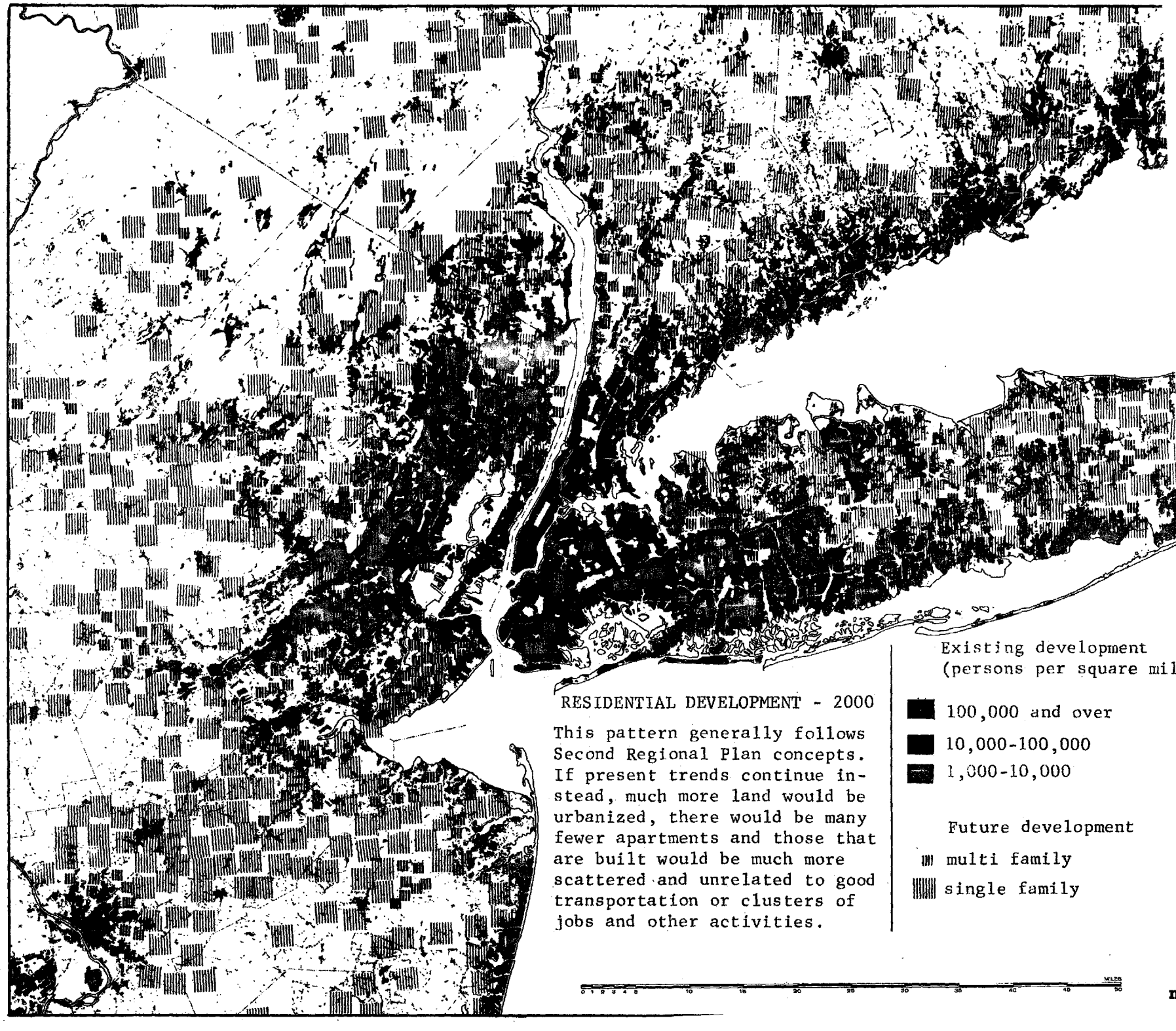
Achieving the policies

Though present zoning policies are the major block to a free housing market and the main cause of the unnecessary spread of the Region, zoning remains a valid public function. It can assure adequate light and air, protect against a mixture of activities that are incompatible, protect particular terrains from unsuitable development. We, therefore, do not want to eliminate zoning nor take it from municipalities insofar as it relates to local design. But density, as we have seen, is a metropolitan concern and therefore must be the responsibility of some governmental unit which speaks for all who are importantly affected.

Neutralized school taxes. Before density is decided by a wider community than the municipality in all fairness, the tax effects on the locality must be neutralized. Large-lot zoning was instituted where suburbs were developing explosively. It was an understandable reaction to tripled school tax bills and double sessions. It was a direct answer: if wave on wave of small houses on small lots produced large numbers of children but not enough tax returns to pay for schools, the municipality should allow fewer houses that cost more money and so pay higher taxes. If we ask for a different policy, we must provide another answer to the school tax squeeze.

There are at least two ways to approach an answer. The real estate taxing area could be enlarged so that the burden of large numbers of school children in one district can be balanced by industrial and commercial assessment--which send no children to school--from other districts. Alternatively, another tax could be substituted for portions of school financing now paid by real estate taxes, for example by raising state aid and adjusting the formula so that the local share of school support is not affected much by the number of school children per assessed valuation. Then there would be little incentive for a municipality to try to limit school children. This seems the simpler solution, and it fits, also, recommendations in Chapter V on improving living conditions in the old cities.

What level of government to decide density and build public housing? Freeing the locality from the conditions that caused large-lot zoning may


RESIDENTIAL DEVELOPMENT - 2000
This pattern generally follows Second Regional Plan concepts. If present trends continue instead, much more land would be urbanized, there would be many fewer apartments and those that are built would be much more scattered and unrelated to good transportation or clusters of jobs and other activities.
Existing development (persons per square mile
100,000 and over
10,000-100,000
1,000-10,000
Future development
multi family
single family
MILES
0 1 2 3 4 5 10 15 20 25 30 35 40 45 50

not free the housing market to respond to demand. By now, localities may prefer large-lot zoning apart from its effect on school financing, either because it keeps out people in general or poor people in particular. So the local interests of a relative few would overcome the broader interests of many more if municipalities had the final decision.

What we are after is a way to blend the interests of the locality and the Region. The regional interest is primarily in the density pattern (with its effect on housing cost and availability and therefore on social patterns). The local interest is assuring a pleasant local community.

The regional interests could be expressed by the state, by a new regional level of government, or by counties (or planning areas like Connecticut's) with the state overseeing.

The blend could be achieved with a single level of government--like the regional body that has been considered in Connecticut which would be run by a council including both local and state representatives. Or it could be achieved by a sharing of powers between the locality and higher levels. Each state and perhaps each area within each state might appropriately choose different ways to share powers, but just to demonstrate how it might work in a real situation, to start a discussion that can lead to the needed changes in each state, here is one way a state could choose to achieve the blend of local and regional interests in housing:

Counties* might be required to prepare a density plan proposing population totals for every area of the county. This would be subject to negotiation with local governments both when the plan drafted and later when the municipality is re to approve a subdivision or amend its zoning ordinance. The county would have a veto over local actions which do not seem to meet the regional housing needs. In addition, the cou would have power to build publicly-assisted housing anywhere within its boundaries. If th county did not act in accordance with regional needs--for example, by not varying its housing stock to balance its population racially and economically, the state might intervene. It m do this through a veto of county and local dec sions and/or by directly organizing the constr tion of needed housing, unrestricted by munici zoning, as the New York State Urban Developmen Corporation now has the power to do.

In instances where a higher level of govern feels it must contravene the interests of the locality as expressed by municipal government, elected official, like the governor or a legis lative body, should be required to take respon bility for the decision, explaining why it is the legitimate interests of a wider community override the narrower interests of the local government. The decision is then open and dem cratic--much more so than if it were made by a public corporation board of directors or by a civil servant not directly responsible to the public.

Making the decision political would encoura negotiation between the higher level and the lower, because no elected state or county offi wants to confront disagreeing local officials. They will go to great lengths to find a mutuall satisfactory solution. On the other hand, pres sures will be on the higher level of government from its constituency to express their wider

*In Connecticut, planning regions.

interests, and state and county officials cannot back down on that responsibility, either. For its part, the local government knows the state or county has the final word and so will be looking for a compromise, also.

What will probably happen. In most instances, in fact, we can expect the lower level of government to try to conform its programs to the policies they know the higher levels will require so that the programs remain local even though influenced by broader needs. This is exactly what we are after--a local housing policy that reflects regional needs.

In practice, we would anticipate that a private builder would propose a large project which provided mixed housing types and prices, conforming to a suitable metropolitan density pattern. Today, such a proposal probably would be rejected by most municipalities. Perhaps it would be rejected even if school taxes were neutralized as a housing issue. But if the possibility of county or state intervention existed, the municipality would be strongly inclined to work out a project with the builder that they felt would satisfy county and state policies and would maintain local control.

If private corporations are to build large housing developments, which seem more conducive to satisfactorily providing a wide income range, varied housing and good design, probably credit and corporate tax arrangements will have to be made to tide the developer over the long years of land assembly, planning, designing and building infrastructure that is not fully paid for until the final house is sold. The federal Housing Act of 1968 aims at that.

Furthermore, it is probable that even with more efficient building processes and cheaper types of housing, the cost of new housing cannot be brought low enough in the open market to assure a wide price or rent range in each metropolitan community. Then subsidies would be needed to achieve an economic, racial and ethnic balance, since many outlying metropolitan communities will not yet have much older housing stock in which families with lower incomes can live.

Effect on city housing and segregation

The policies recommended here would still not reach some of the goals if few Negro or Puerto Rican families wanted to move out of the ghettoes. Of course there should be no requirement that families move out of old neighborhoods if they don't want to, but the choice should be theirs, based on full understanding of the options open to them.

In many ghetto areas, a suggestion to move out is not popular right now. Many living there feel that whites are just trying to get hold of valuable parts of the City for themselves or break up the growing black political power in the City. However, it does seem likely that good housing outside the ghetto would be welcomed by many Negroes and Puerto Ricans, as long as it were convenient to jobs and services and good schooling.

This effort to improve housing quality and promote integration would fail in large part if housing that should be replaced is filled with new unskilled unemployed in-migrants as soon as it is vacated, as has been happening in the Region's Core. Preventing this may require slowing in-migration at the source. (See Chapter V.)

Housing and The Second Regional Plan

Today, there is one great magnet in the Region that creates the only powerful magnetic field for housing--Manhattan. Its power is demonstrated by the most massive urban renewal project in world history, the East Side of Manhattan--done with private funds because housing demand was adequate to pay the tremendous costs. It is further demonstrated by the high and rapidly rising rents Manhattanites pay, the low vacancy rates, the new apartments poking into every vacant space in the Bronx--and filling up--even though the Bronx is probably too crowded already and subway service is crowded and slow. Housing does conform fairly closely to Manhattan's magnetic field--very dense close in, fairly tight in the older suburbs surrounding the City (with the exception of enclaves of estate country) and remaining fairly tight along the major highway and rail arteries, particularly around older cities or villages which have become commuter towns.

But in between these corridors and beyond the close-in ring of suburbs, spread city begins. It is a fairly even spread of housing at quite low densities, with recent housing averaging two houses or fewer to the acre. Most of the people living there do not work in Manhattan and seldom go there. Its magnetism does not affect them, and there is no other magnet, no incentive for home-seekers as a group to live in one place more than another. Places people typically want to go--jobs, shopping, entertainment--are so scattered that one place has no particular advantage over any other. Households therefore do not bid up the price of land in any single area. They just go someplace else.

The centers proposed by Regional Plan would change this. They would be the destination of large numbers of people so that many people would want to live close to them. The price of land would rise where accessibility to the centers was best, and many people would be willing to exchang some of their large yards to be close to all the activities going on there rather than to live in spread-city style.

To allow this to happen, we propose that schoo financing be changed so that zoning does not have to be used to arrest the influx of school childre and raise the tax returns per school child. Seco we propose that zoning and public housing responsibilities be shared by localities with higher levels of government.

The goal is varied housing types and income groups in each metropolitan community, clustered in a natural way around its center; a total regional housing supply that is adequate at prices and rents reflecting the most efficient construction practices possible; housing and neighborhood design growing out of social, economic and aesthetic pressures to provide a sense of spaciousness, privacy and individuality indoors and out for each housing unit but with disciplined use of land so that space is left over to keep nature close to each neighborhood.

Then all households in the Region, of all incomes and races, should have much wider choice than they have now: of location in the Region (which will give them a wider choice of jobs) and of housing cost and type. Particularly, they will be able to choose either good accessibility to places they want to go frequently or lower density living with poorer accessibility--somewhere on the spectrum from a high-rise apartment in the center of a metropolitan community to an isolated house a long commute away.

V. CITIES AND POVERTY

"Center city" or "inner city" has become a synonym for minority groups and poor people. Statistically, this exaggerates the relationship, yet the instant association of cities with minority groups and poverty certainly affects their future. In fact, some commentators feel that the problems of poverty and cities are so identical that they advocate eliminating the cities to get rid of poverty.

The Second Regional Plan, somewhat more realistically, we believe, reverses this: proposing to eliminate poverty to save the cities.

The old cities will not be fit places for the next generation to live without the steady elimination of poverty. Income projections indicate that this is quite within the capacity of the Region's economy. At the same time, elimination of poverty and integration of society will take much longer and cause more agony if those who are not poor turn their backs on the cities.

Costs of anti-poverty efforts and city programs

While metropolitan centers (Chapter III) can contribute to the elimination of poverty over a long period and can inhibit further divisions between the poor and the rest of the population, more direct attacks on poverty are needed. Private enterprise has demonstrated that it can play a part in these programs, but final responsibility rests with government.

Dr. Dick Netzer, Head, All-University Department of Economics, New York University, and a continuing consultant to Regional Plan, directed a New York University team in a Second Regional Plan study that priced the addition in public services needed to help the poor enlarge their economic, educational and other opportunities. (Public Services in Older Cities, May 1968.)

The public programs analyzed were: special education to raise achievements of poor children, welfare, public health, and such special anti-poverty programs as drug addiction control and job training. The old cities analyzed were: New York City, Newark, Hudson County (considered as a single city), Bridgeport, New Haven, Paterson, Trenton, Elizabeth, Waterbury, Mount Vernon and Passaic.

Education. After surveying special education programs for the poor, mainly Negro and Puerto Rican children, the New York University team concluded that the lack of success of these programs did not necessarily demonstrate a wrong approach but only too little time and money invested so far. For example, many of these programs achieved minor gains by cutting class size by 15 or 20 percent; the NYU report suggests that cutting class size much more radically might make significant gains and that a longer period of experimenting would be necessary to really find out whether the approach would work. Teachers and administrators must adjust to the new conditions to make the most of them. One of the main criticisms of current programs is that teachers have continued the same teaching methods for smaller classes that they used for larger ones, so the full benefit has not been exploited.

With the other techniques for improving education for the poor child, such as better teaching materials and more special teachers, the NYU team came to similar conclusions: a little investment has had very little impact, but a much larger investment might well have significant impact. Furthermore, society has no alternative but to try to compensate for educational disadvantages to give every child effective equality of educational opportunity, so we must do what we can until other programs have been proven better.

In the study, it was not necessary to take sides in the disagreement between those who favor bending every possible effort toward integrating races and income levels in schools and those who favor concentrating on improving education for the disadvantaged separately where integration is geographically difficult to achieve. The issue is not essential to the NYU team conclusion, which relates only to the finances needed, because they found that integration programs tend to cost as much as compensatory education programs. School systems raise budgets in the newly-integrated schools to make sure that all pupils feel they will gain from the change. Similarly, decentralization is not at issue here because finances are not in question in that debate.

In all, the NYU team concluded that the cost of an adequate educational program for the poor in the New York Region, to balance deficiencies of early education and home environment in regard to formal education, would be $8\frac{1}{2}$ times what was being spent for these programs in the Region in 1966-67, or about $850 million.

Income maintenance, public health and anti-poverty budgets. The NYU team consulted recent research on welfare recipients and the number of persons eligible for welfare not now receiving compared present payments with sums needed to children with enough dignity and self-confidence to give them a chance to step out of the depend world, and noted the inadequacies of public hea services--particularly preventive medicine and dental care. It figured that payments to the and health services for them should be raised than 60 percent, from $1.6 million in 1966-67 $2.6 million per year in the New York Region's eleven old cities.

Again, it was unnecessary for the study to choose among the several alternatives to the present system of welfare now being proposed, including negative income taxes and family allo ances, though it did point out that the present system in most instances discourages welfare recipients from earning partial income because wages are withdrawn from welfare payments. Fro the point of view of the recipient, this is lik a 100 percent income tax.

Altogether, the NYU team found that public services related to poverty would have to be about doubled to begin to break the chain of poverty that holds each generation down with th previous one.

Who should pay the bill?

A large share of the financing of such pover related public programs falls on the older citi Poverty is particularly concentrated there. In 1959, 71 percent of the Study Area's households with incomes below $5,000 a year lived in the eleven old cities, compared to 55 percent of th total population. Among the Study Area's house holds of three persons or more (mainly those wi

children), New York City had three out of five of those with incomes below $5,000 a year but only two out of five of all households of three or more.

Taxpayers of these older cities, who bear this extra share of the costs of poverty-linked public programs, are below the Study Area's average income, and many of the cities have lower taxable real estate values per capita as well. So those with below average means are being asked to make an unusually high contribution to programs against poverty.

A doubling of poverty-related expenditures by these city governments would simply be impossible. Already, real estate taxes are higher in most of them than in other localities, and higher taxes are contributing to the exodus of businesses, further adding to poverty and subtracting from taxes. Any sharp rise would push out more residents, those financially able to move who are not thwarted by racial discrimination in housing.

Furthermore, the NYU study argued, in a mobile country like ours, poverty is really a national problem. It only happens to take place primarily in older cities now--often after rural areas have failed to educate the poor or find work for them. National policies allow free movement from one section of the country to another. Therefore, the report argues, the federal government should bear all costs of poverty-related public services.

The effect on the federal budget of more than doubling these services and assuming them entirely would be $20 billion a year (in 1966-67 dollars) added to the 1966-67 federal budget of about $105 billion. To compare this sum to federal revenue potential, federal revenues have been going up at the scale of $10 billion a year in recent years, simply from the continuing rise in gross national product. But our argument for federal assumption of these costs is not that it is easy, rather that it is essential to eliminate poverty and save the cities; and it is just.

The effect on the cities. Federal assumption of the financing of poverty-linked public services would have three positive effects on the older cities. First, it would make possible the necessary substantial increase in spending to end poverty. Second, it would free the cities' tax money for public service improvements needed to make city living attractive for all income groups. Third, it would establish national welfare standards, which would make it unnecessary for the unskilled unemployed to move to another state to get enough income to live. Now, the Region's states pay so much higher welfare grants than Puerto Rico or many southern states that there is little hope of stopping the continuing high rate of in-migration of unskilled unemployed to the Region without national policies to provide comparable aid in all parts of the country. (Table 4.)

Table 4
MONTHLY AVERAGE AID TO DEPENDENT CHILDREN GRANT, FEBRUARY 1968

	Per Family	Per Recipient
New York	$241.65	$60.60
New Jersey	229.05	57.30
Connecticut	220.90	56.20
South Carolina	73.25	18.65
Mississippi	34.85	8.45
Puerto Rico	26.00	5.36

Source: U.S. Department of Health, Education and Welfare, Welfare in Review, Vol. 6, No. 4.

More state aid for education

The NYU study also made a case for much higher state aid to education based on four arguments: (1) the great mobility within states which constantly burdens school districts with the inadequate preparation students received from other school districts (nearly 18 percent of the residents of the Study Area in 1960 had been living in a different county five years before), (2) the importance of uniformly good education to a state's economy, (3) the historic and constitutional responsibility of states for public education, and (4) the tremendous variation in financial ability of school districts, which is not now sufficiently compensated by present state aid.

We would add, as in Chapter IV, it is one way to free local planning from its entanglement in local fiscal problems.

The study concluded that the three states should pay about 60 percent of local school costs (double New Jersey and Connecticut's present share and 50 percent larger than New York's) and should tip the formula more in favor of the poorer districts.

This would allow older cities to compete for middle-class residents by offering as good education as the suburbs, and it would further relieve city budgets.

A high-amenity budget for older cities

Because city people live closer together than suburbanites, public places and public services are much more important to them. Poverty problems have so drained city budgets and city political and administrative energy that living conditions there have deteriorated. But with the budget relief proposed here and adequate national investment in overcoming the disadvantages of racism and poverty, the NYU team concluded that city governments could raise the standards of their services so that people who like cities would want to live in them again.

The NYU team estimated that New York City should be spending about $670 million a year more than it did in 1966-67 on services not related to poverty, a 30 percent rise in the operating budget plus $250 million a year more debt service for improvements in transit, streets, parking, waste removal, street cleaning and parks. This would require less than $170 million a year more from City taxes because under this proposal, the federal government would take over about $500 million a year of the City tax burden for poverty services and the State would provide more school aid. Comparable improvements for the other ten old cities would total nearly $350 million, but much of this would be returned from state and federal grants, also.

If poverty-related costs were eliminated from city budgets and state-education aid were increased, the cities could finance the traditional local services at the high standard called for, the NYU team concluded.

Mayors should fight for this program of federal and state aid, a much superior strategy to their present one of, hat in hand, asking the federal and state governments for any amount of funds for any possible program, whether their aid is logically justifiable or large enough to make any difference.

These general recommendations of the NYU team have been adopted as part of the Second Regional

Table 5

OLD CITIES VS. THEIR ENVIRONS: RACE AND INCOME CHARACTERISTICS

	Percent Non-white Population, 1960	Median Family Income, 1959 All Families	Median Family Income, 1959 Non-white families
New York State	8.9%	$ 6,371	$4,441
New York City	14.7	6,091	4,437
Nassau County	3.2	8,515	5,113
Westchester County	7.7	8,052	4,966
Mount Vernon	19.9	6,873	4,950
Bronxville	2.0	10,000+[a]	n.a.[b]
Scarsdale	4.9	22,177	n.a.[b]
New Jersey	8.7	6,786	4,571
Essex County	19.8	6,651	4,450
Newark	34.4	5,454	4,491
Millburn	1.1	14,145	n.a.[b]
Hudson County	6.9	6,151	4,450
Mercer County	12.9	6,707	4,655
Trenton	22.6	5,840	4,602
Passaic County	6.7	6,431	4,403
Passaic	8.8	5,885	4,560
Paterson	14.9	5,541	4,335
Union County	7.7	7,746	5,116
Elizabeth	11.0	6,429	4,585
Summit	5.7	10,768	5,500
Connecticut	4.4	6,887	4,554
Fairfield County	5.3	7,371	4,585
Bridgeport	9.9	5,982	4,411
Darien	.1	12,998	n.a.[b]
Greenwich	2.2	9,588	4,821
New Haven County	5.3	6,718	4,513
New Haven	14.9	5,864	4,205
Waterbury	6.7	6,535	4,513

[a] 75 percent of families have incomes over $10,000.
[b] n.a.—not available.
[c] Including six old cities: Bayonne, Hoboken, Jersey City, Union City, Weehawken and West New York.
Source: U.S. Census of Population: 1960.

Table 6

INDEX OF EQUALIZED PROPERTY TAX VALUATION PER PUBLIC SCHOOL PUPIL: OLD CITIES VS. SUBURBAN COMMUNITIES WITH SUPERIOR SCHOOL SYSTEMS

New York State, 1963-64	
New York City	100
Mount Vernon	75
Bronxville	151
Scarsdale	107
New Jersey, 1964-65	
Newark	100
Hudson County[a]	146
Paterson	99
Trenton	82
Elizabeth	156
Passaic	130
Millburn	260
Summit	199

[a] Including six old cities: Bayonne, Hoboken, Jersey City, Union City, Weehawken and West New York.
Source: Based on state education department data.

Table 7

SUMMARY OF ESTIMATES OF COSTS OF PUBLIC SERVICES IMPROVEMENTS FOR THE REGION'S LARGE OLD CITIES[a]

(approximate figures, in millions of dollars, at 1966-67 price and salary levels)

	New York City		Local Governments Serving 10 Other Large Old Cities[b]		Total	
	1966-67 Expenditures	Cost of Improvements	1966-67 Expenditures	Cost of Improvements	1966-67 Expenditures	Cost of Improvements
Poverty-linked services	$1,400	$ 800	$200	$250	$1,600	$1,050
Public assistance	600	500	100	100	700	600
Other health and welfare services	800	300	100	150	900	450
Education[c]	1,000	1,100	200	200	1,200	1,300
Competitive	900	400	—[d]	50	—[d]	450
Compensatory	100	700	—[d]	150	—[d]	850
All amenity-type services	2,200	700	300	200	2,500	900
TOTAL	**4,600**	**2,600**	**700**	**650**	**5,300**	**3,250**

[a] The New York City estimates are considerably more reliable than those for the other cities; 1966-67 expenditure amounts for the other cities are partly estimated.
[b] Includes activity of county governments, wholly or in part, a proportion allocated on the basis of each older city's size in relation to the county which contains it.
[c] Education here refers only to elementary and secondary education. No provision is made in this table for improvements in the higher educational facilities and services operated by local governments in old cities, notably the City University of New York.

Some proposals on employment

The poor also need assurance of employment.

Thorough studies must be made of the new types of work, mainly office employment, for which the Region's work force will have to be prepared so that training programs can be worked out to prepare for them. It is important to relate training to the growing part of the economy. One approach might be to try to break down work now performed by skilled people into components which require less skill and preparation. This would enable employers to draw on the pool of unemployed and underemployed for positions which are now difficult to fill. With experience and training, some of these new employees might be able to add components that had been part of the job before until they are as skilled as previous employees were.

Second, until new policies described in Chapter IV succeed in opening housing for low-income families throughout the Region, unskilled jobs will have to be kept within commuting range of unskilled workers. This can best be done by making the Core more hospitable to manufacturing and wholesaling by (1) developing the Hackensack Meadows--in the center of the Region's Core--where there is plenty of land for extensive manufacturing in addition to land for parks, housing and conservation, and (2) improving truck routes in the Core, especially the Lower Manhattan Expressway, the Cross-Brooklyn Expressway and the proposed connector between the Holland and Lincoln Tunnels.

Housing proposals of Chapter IV also would contribute to the employment of unskilled workers because they would greatly expand housing construction and particularly types which use a large number of unskilled workers.

Finally, a catalogue should be maintained of jobs that could be performed by unskilled workers that would contribute to the life of the Region, and federal financing should be sought for them. Such programs would cost very little in total resources because they would use the efforts of those who are now unemployed or underemployed. We cannot "afford" cleaner subway stations, better maintained parks, enough recreation leaders, enough hospital aides, or such amenities as double-decker buses (because conductors would be required) and attended elevators in apartment buildings, yet there are thousands of persons not now fully employed who would be able to provide these services for us and who now are a threat to the Region because they are not fully employed.

A number of political leaders recently have stated this proposal another way: the federal government should be the employer of last resort for all who want to work.

Conclusion on old cities

It is sometimes said that few people really want to live in cities; people live there because the only housing they can afford is there. As incomes rise, it is argued, fewer and fewer people will remain in cities. If this assumption leads to reluctance to invest in city improvements, it becomes a self-fulfilling prophecy. Lagging city services will drive people away. Such a course would reserve the cities as dumping grounds for society's rejects. It is unthinkable.

We argue:

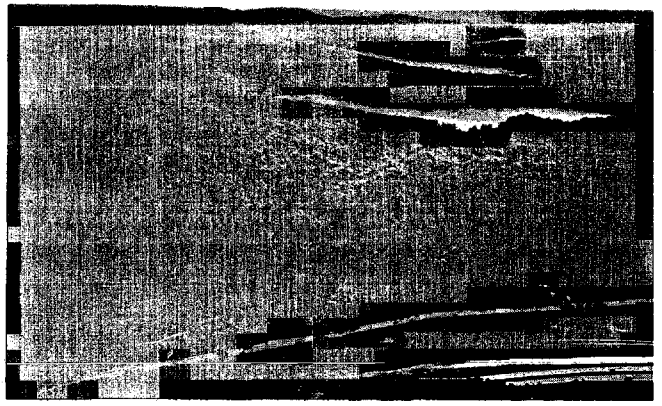
1. The obvious demand to live in many parts of New York City, with all its present problems, is

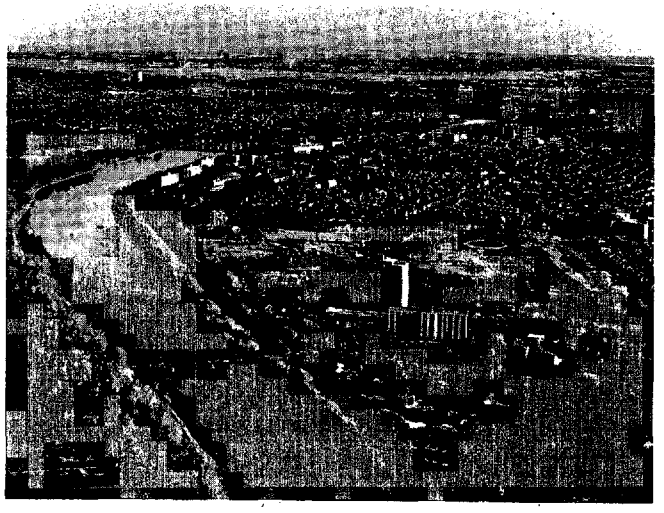
evidence that people do want to live in cities that offer them sufficient return for the limitations high density imposes.

2. If this view overestimates the attractiveness of cities in the future, the only conceivable response would be to gradually renew and open up overcrowded neighborhoods as vacancies occur and population slowly drops.

But we fully expect the cities of the Region to hold at least as many residents as they have now over the rest of the century if

*there is a strong attack on poverty,
*public services in the cities reach the quality recommended above, particularly improvements in public transportation, and
*jobs and other metropolitan and regional activities remain in city centers.





Regional open space should concentrate on the mountains to the west, the ocean and bayfronts to the east and the major rivers running between. Altogether, about 10,000 square miles of publicly accessible open space should be added for the Atlantic Urban Seaboard (between southern Virginia and central Maine). See Map 4, page 17.

VI. NATURE AND DESIGN

One of the themes of the Second Regional Plan is that life in the Region would be improved for future generations if we more sharply distinguished natural countryside from urban places and paid greater attention to conservation and ecology on the one hand and urban design on the other.

Keeping natural open space

The ecological view. Ecologists, who study the life cycles of water, earth, plants and animals, warn that man inadvertently may be damaging the natural mechanisms of the world as a result of seeking solutions to human problems separately, one by one, without observing the effect of all the solutions together. To the demand for cheaper goods, he responds with production processes which dump wastes with the least possible cost to the consumer of the goods--but not to the area. To the problem of overcrowded schools, he responds by restrictive zoning which results in cutting more trees to make larger back yards. To the problem of inadequate transportation, he responds with more cars travelling more distance over more highways, emitting more wastes into the air.

Ecological advice, still incomplete--coming from a relatively new field of scientific study, suggests that as little land as possible be cleared for urban uses, at least until we know more of the consequences.

Natural open space of different sizes is needed in a large urban area and for different purposes.

Large-scale open space. The urbanization along the East Coast is channeled between the mountains and the sea. This offers the advantages of disciplining the development and making completely natural places easily accessible to this largest population concentration in the country. However, the green backdrop and open oceanfront are neither inviolate nor certain to remain open to the public. In large part, they should become public parkland or some other kind of publicly-accessible reservation.

The proposed park system should not freeze out existing private development in the Appalachian chain that is not destructive of park values, but it should assure public access to the mountains all along the East Coast urbanized corridor.

Similarly with oceanfront: existing development could be left, but what is still open should be acquired by a public agency so it is accessible to all.

Note that this policy deliberately and specifically calls for no increase in the private ownership of oceanfront available in the Boston-Washington area. While it does not recommend eliminating present private development over the rest of the century, except where necessary to acquire a large, particularly accessible public park, it does say that no more open oceanfront should be developed that is not open to the general public--so an increasing number of increasingly affluent people will be seeking a constant amount of nearby private oceanfront.

Between the mountains and sea, threading through cities as well as country, are six major river systems and seven great bays. These, too, can become a framework of green for the spiritual,

aesthetic and recreational life of the Eastern Seaboard. (See Map 4.)

Some 10,000 square miles of added parkland and other public reservations would be involved in these proposals. They would be used for recreation trips of all day or longer, for the most part.

Smaller-scale open space. Smaller pieces of open space must be preserved, also. A natural preservation study should identify unique areas worthy of protection, terrain that should remain in a natural state for conservation purposes and land needed for outdoor recreation for both the large-scale community (like the county of today and the metropolitan community recommended in this Plan) and for the local community. Rivers and streams can be important elements of community open space as well as regional. Continuousness of open space is felt by ecologists to be important, and a water course frequently can be the form around which continuous open space is acquired.

Neighborhoods can be integrated with nature under cluster zoning principles in which the builder is told the total number of housing units he is allowed to build on a tract and then allowed to fit them into the terrain with the least damage to natural features, subject, of course, to municipal approval of the subdivision plan. This contrasts with usual zoning ordinances which require, in effect, that each housing unit should be built on the same sized lot regardless of terrain, and the entire area of the subdivision must be cut into lots if the project is to be economically feasible. Several cluster subdivisions planned together can achieve continuous open space, not only protecting natural processes better but giving a sense of a larger space left open.

Regional Plan's 1960 park and open-space study called for county park systems of 12 acres per 1,200 persons or 5 percent of the total area, whichever is greater, and municipal parks of 10 acres per 1,000 persons or higher wherever possible. (The standard had to be adjusted downward for parts of New York City.) These standards are still recommended. They have been achieved in few places.

Acquiring the open space. A new principle of park acquisition should be instituted in the Region: all open space that will be needed when the Study Area is fully populated--for conservation and aesthetics as well as for outdoor recreation--should be acquired by the public immediately. This contrasts with the usual method of acquiring parks only when demand for outdoor recreation requires it or when a particularly valuable tract is about to be built on.

By identifying all of the major open space needed by the Region as far as can be foreseen, fit to efficient and attractive urban development, and then acquiring it immediately for the public, the total cost will be lower than if public open space is acquired piecemeal whenever there is political pressure for it. The price of land can be expected to rise far faster than the accumulated interest on money borrowed to buy it immediately. In addition, there will be less political friction and personal disruption compared to park acquisitions that snatch a piece of land after a developer has worked out plans for it (which has happened several times recently). There will be less chance that a particularly important site will be lost or that whole sections of the Region will be left poor of parks--as many are now--because development moved so fast that land values rose beyond what governments were willing to pay. Finally, if permanent open space is established before urbanization, the

development pattern is disciplined by it to conform to the plan. Until this principle is widely accepted, governments should give priority in open-space acquisition to land that is most susceptible to development--principally along roadways. Inaccessible land can be purchased when additional funds are available. Otherwise, much of the land desired for public open space will be developed before it can be acquired for a park, and most great parks will be approached through a thicket of billboards and hamburger shacks.

Designing urban space

In addition to reserving enough natural open space, urban spaces should be designed more satisfactorily.

Over the past half-century, planning has neglected several important design principles. When applied to the Region as a whole, to broad vistas within it, or to a small but intensively used area like a central business district, these principles can have a tremendous impact on the feeling of life.

They are:

1. Articulation. An undifferentiated urban fabric which goes on for miles without relief is deadening to the senses, be it Brooklyn or Levittown.

2. Geometric clarity. A geometrically clear order, such as a ring-radial highway system or a grid street pattern, is easy to understand, remember, and orient oneself in. Somewhat chaotic village streets may be charming, but chaos in a regional expressway system is not, and seriously weakens its usefulness.

3. Continuity. When moving along a path, we don't like obstacles, even if they are only visual, such as telephone poles along a highway, billboards, or a dark narrow stair which leads from the street into the subway. The flow of space along major paths of movement should be continuous.

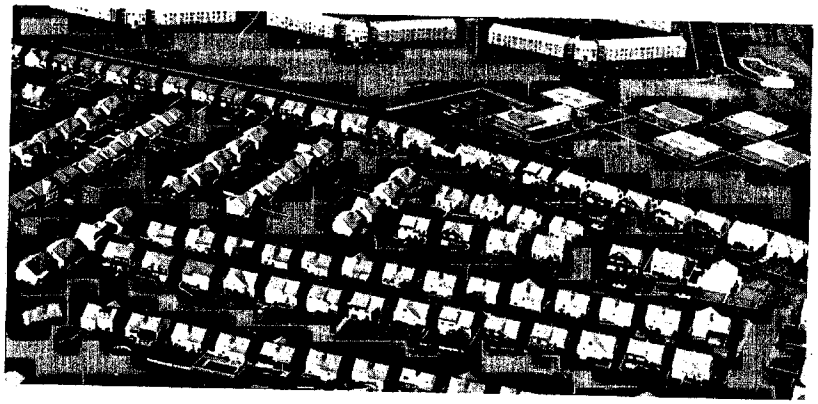
4. Identity. While repetitive elements predominate in any urban area, we remember places by contrasting, unique elements that stand out.

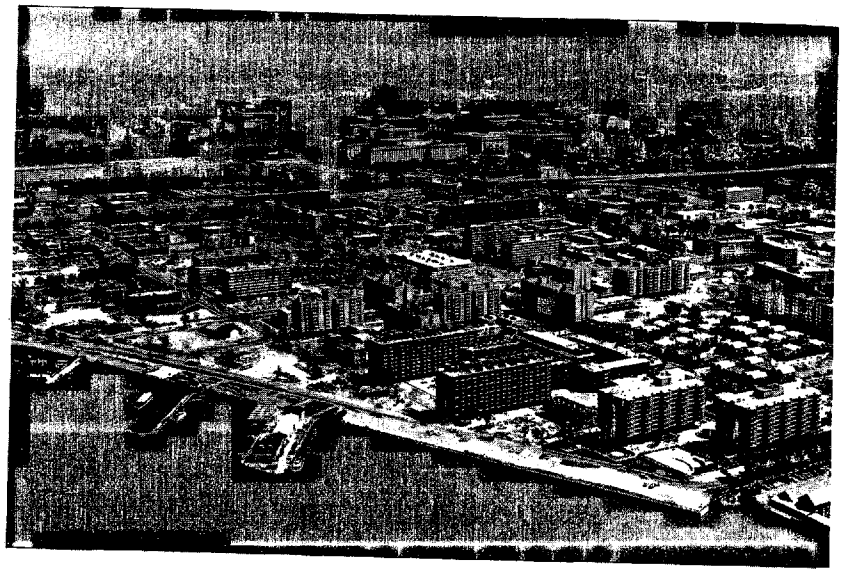
These principles are expressed in The Second Regional Plan in

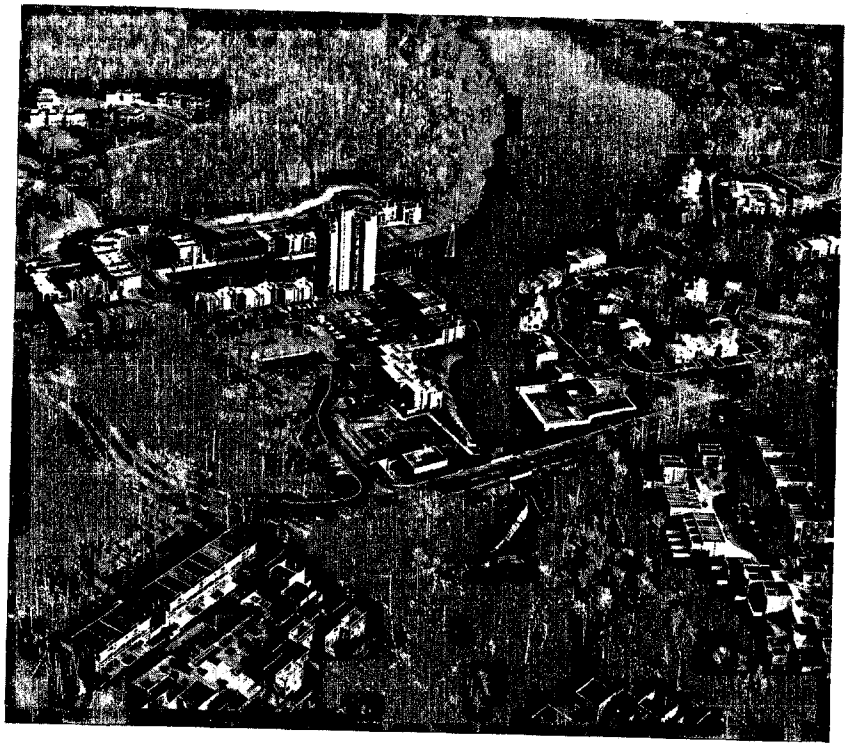
* the framework of nature proposed above--mountains on the west, oceanfront on the east with the river valleys connecting them which gives over-all form to the Region,
* the centers, which vary the urban fabric, give clarity to the over-all form, and provide points of identity,
* the housing pattern which carries the impact of the centers throughout the metropolitan communities, and
* the expressway concepts which emphasize conceptual clarity and continuity (Chapter VII).

At a smaller scale, we recommend that highway networks subordinate to the regional expressway system also be worked out with these principles in mind and that county and municipal planning departments re-establish these principles to the importance they had among planners of the nineteenth and early twentieth centuries and hire designers to infuse their planning with them.

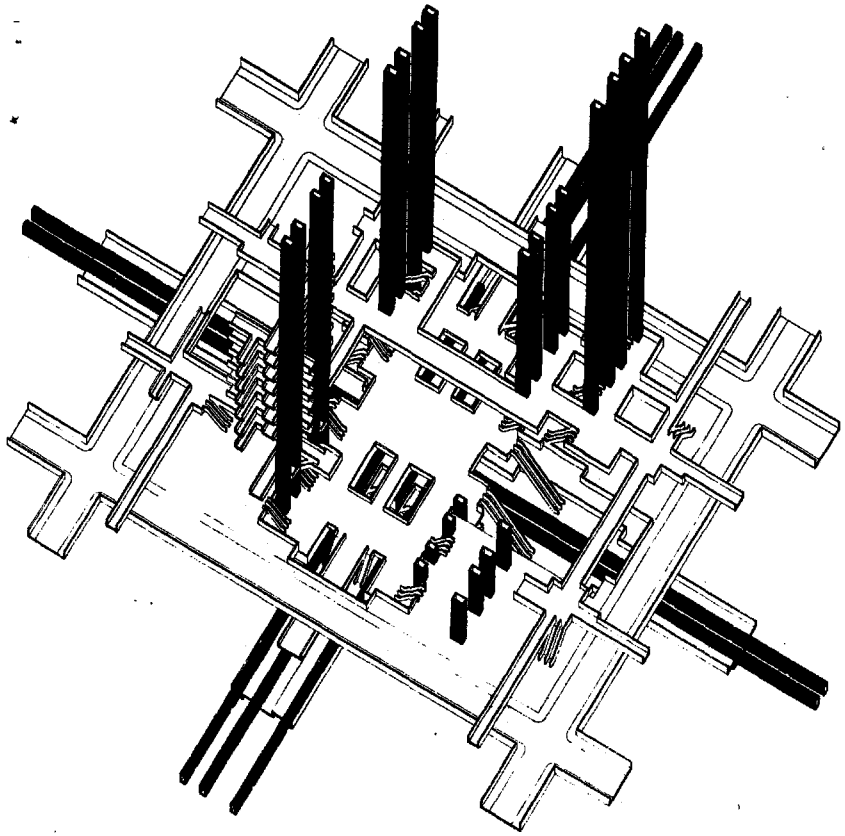
Some specific design recommendations have been made in The Second Regional Plan background publication, Urban Design: Manhattan (to be

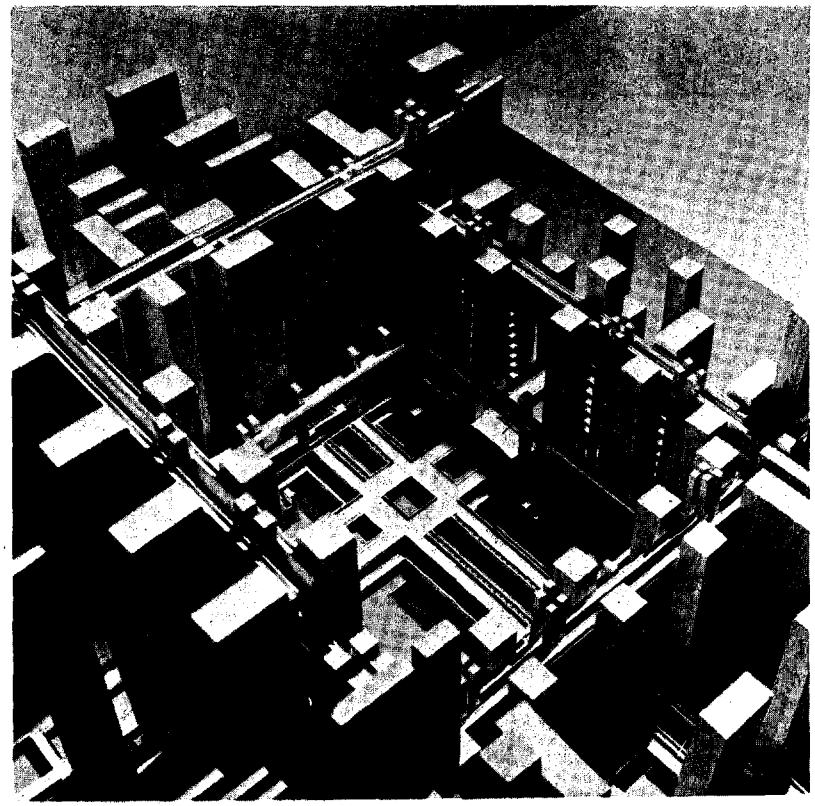






Articulation (or differentiation)--the first urban design principle--is all but missing from many urban places as those on the left, North Philadelphia (top) and Woodbridge, New Jersey (bottom). By contrast, two recent city and suburban developments, Southwest Washington redevelopment area (top) and Reston, Virginia (bottom).





To improve the design of Midtown Manhattan, three proposed design principles are illustrated here (from Urban Design: Manhattan, to be published in The Second Regional Plan background series): (1) clustering of office space within the larger cluster of Midtown to avoid the deadening effect (and poor functioning) of "slab city," row on row of high office buildings, now threatening; (2) relating of transportation (mostly underground to Manhattan) directly to office buildings so the employee has a smooth trip from roots (transit) to trunk (elevators and escalators) to branches (corridors); (3) use of several levels above and below the ground for pedestrian and vehicular movement to provide enough and pleasanter pedestrian space at the right places and avoid conflict between pedestrians and vehicles.

published soon). It carries the design principle of centers--intensive clustering of activities at key points in the Region--to the central business district scale, showing the functional and visual advantages of clustering within the center as well. Among the design recommendations are:

1. Buildings should relate to surface and subsurface transportation as a tree trunk relates to its roots. Wherever possible, transportation should serve a business district below ground level, and the largest buildings should grow up at the major public transportation stops. Transportation to the buildings (the roots) should be designed to relate directly to vertical transportation, elevators and escalators (the trunk).

2. Areas more remote from major transportation points should be correspondingly low.

3. The whole should be designed with the pedestrian in mind--the scale of the whole, what can be seen by the person walking, distances typically traversed between places many people go and from heavily used public transportation to these places, and the allocation of pedestrian space.

4. Several levels should be used to achieve maximum possible separation of pedestrians from mechanical vehicles and to provide quiet places for sitting. Major plazas should be below sidewalk level (77 percent of CBD employees emerge from underground rail stops to go to their jobs). Plazas that are related to underground transit also

   a. open the underground world to sunlight and air,

   b. express rather than hide the multi-level character of the centers,

   c. keep the continuity of the space in which the pedestrian trip occurs,

   d. provide both the transit station and the surrounding buildings with a clear identity (not every station has a plaza), and

   e. facilitate orientation, which is generally lost if one has to make several turns in enclosed underground corridors.

5. Much more investment must be made in appearance and amenity: opening subway stations to light and air, adding greenery to the urban scene, planning spaces among buildings that satisfy aesthetically and function conveniently, arranging the whole so it is understandable to people, so they can find their way easily and relate to the place.

6. Outstanding features should be used in the design rather than blocked out or obliterated, as the rivers around Manhattan now are blocked from the enjoyment of people in the City, for the most part, and the Palisades--unique, beautiful and image-able--are being obliterated. The Lower Hudson (December 1966), another background publication of the Plan, shows how this can be done. It is applicable to other urban rivers as well.

Natural environmental conditions

In the city or out, we want the air to be clear, streams and lakes pure and the landscape free of refuse. But we use these as dumping grounds for

wastes. In Waste Management (March 1968), a background study for The Second Regional Plan, a distinguished consultant group observed that the way back to nature is forward through more systematic use of scientific research and rational management.

The consultants concluded after projecting the amount of wastes that the Region's increasing population would generate that we have the resources to dispose of these increasing wastes and still have junk-free land and purer air and streams than we have now. They proposed that a waste management system be arranged so that the people who decide what wastes are generated pay the full cost of those wastes, including the cost of damaging the environment. For example, the manufacturer who uses fresh water and returns it hot and filled with wastes to a river without paying the community for the damage might choose to use the same water several times at somewhat greater cost if he were forced to pay a great deal for the damages to the river. Or the bottle or can manufacturer, if charged for the extra costs of disposing of glass or metal that cannot be reused or destroyed, might find formulas for reusing it.

Also, the consultants pointed out that the waste disposal system could be organized much more efficiently. For example, sewage and incinerator plants seldom are as large as they should be for lowest cost, and several critical answers are needed to increase efficiency:

1. The real costs of damages caused by wastes in air and water--the health hazards have not been demonstrated scientifically, damages to materials (like buildings and clothing) have not been adequately surveyed, and no effort has been made to put a dollar value on the unpleasantness of turbid air or smelly watercourses.

2. When and where damages occur--they do not occur at all times or places at levels severe enough to warrant expensive counteraction.

3. Applicability of new technology and better administrative organization and methods.

Finally, we need a political process through which the public can choose the quality of environment we are willing to pay for.

Steps to protect nature and improve design

The most important step to achieve these recommendations is arousing more people's interest. Increasingly, citizens are expressing their concern about the general quality of their environment in organizations dedicated to acquiring parks, fighting air pollution and noise, protecting architectural landmarks, and getting better design in new buildings. But the public is not yet so aroused that private builders and government agencies assume people expect them to reach for a high quality environment.

Those making important decisions about the environment should consult competent designers and ecologists. They will do this when the public demands that it be done. The public will not demand it until planners put the issues before them more clearly and persistently. Planners cannot do this until they have more design experts in their own organizations.

Protecting the majority from an indifferent minority. Even those steps would not protect the

environment as long as a small minority is able to flaunt the growing sentiment for higher quality. For example, builders with the approval of small municipalities are destroying the Palisades across from Manhattan with insensitively placed apartments. They are aware of design principles which would allow development with preservation of the main lines of the Palisades, but they care too little to make the extra effort to follow them. It may be necessary, then, to protect outstanding natural features, banks of major rivers, even margins of major highways--any areas that could be enjoyed by large numbers of people. The protecting agency would have to be more broadly representative than a municipality. Perhaps it could be the counties or states or a new regional agency, or federal and state agencies operating jointly.

Immediate acquisition of all open space for the future Region would require a giant loan fund if the idea caught on throughout the country and the amounts needed strained the usual bond market. If needed, this fund logically would be organized by the federal government, but some of the capital could be private.

What governments to buy the parks? To the park user, it makes no difference whether he swims or hikes in a national park or a state park. Only if he is excluded or over-charged as a non-resident, which some municipalities and counties do, will it matter to him what level of government has preserved the space and opened it for recreation. Bought piecemeal, parks cannot easily be classified as appropriately state or federal or county: if all the open space needed for the foreseeable future is identified, the land to be acquired could more easily be assigned to each level according to types of uses and users expected. Even then, however, parks like other public services, are not clearly local, state or national. Consequently, the huge Appalachian park system and the river valley parks recommended above might inaugurate a joint interstate-federal park system. This governmental and design pattern could fit the needs of other of the nation's growing urban corridors ("megalopoli") as well. There is some precedence along the Atlantic Ocean, where the federal and state governments have each created several parks.

Waste management, too, will require cooperation among several levels of government. A regional agency might be best to carry out research leading to policy recommendations for handling wastes more efficiently and distributing costs more fairly. Some policy recommendations might then require federal action (for example, a tax on "disposable" bottles that can't be disposed of), others by states, counties or special waste management districts (for example, charges on those emitting damaging effluents into the air or water plus the actual collection of wastes of all types). The regional research agency should propose an administrative and policy framework to carry out the recommendations.

But the essential ingredient, as in obtaining good design and adequate natural spaces, is vocal civic leadership demanding a clear price list for a better environment and leading a public chorus that says, "We want it better, and we'll pay for it."

VII. TRANSPORTATION

All of the recommendations of earlier chapters on organizing the facilities and housing of the Region and improving social and environmental conditions require related transportation policies. (The relationship is so close that there is some repetition; some of this chapter is the reciprocal of chapters III-VI.)

Facilitating centers

To make centers work, they must (1) be much easier to reach than any place else in the metropolitan community and (2) have public transportation capable of attracting a large percentage of the people coming to the center. But each center will require somewhat different transportation to satisfy the requirements.

Manhattan CBD. Probably the greatest total time saving per transportation dollar invested would result from circulation improvements in the Manhattan central business district (CBD) because so many people are involved and speeds are so slow. The trip from the subway, bus or commuter train exit to the office or store is frequently the slowest and most trying part of the trip.

Part of the problem could be solved by urban design, particularly by locating the largest office buildings over subway stations, with direct connections, and by providing more pedestrian space where it is needed. (See Chapter VI and the forthcoming Urban Design: Manhattan report.) But new technology also can play a part--moving sidewalks or some other pedestrian aid that can be boarded and left easily at many places and is available practically continuously. New crosstown transit of some kind also would open up the West Side of Midtown for office development, relieving the East Side of pressures to increase office density.

Crosstown underground tunnels connecting the Lincoln Tunnel with the Queens-Midtown and perhaps another in the vicinity of 59th Street connecting the Queensborough Bridge to the West Side Highway, with other circulation improvements, would allow sidewalk widening and perhaps even the closing of certain surface streets for use by pedestrians and buses only--such as Broadway in the Theatre District, possibly 42nd Street, and Fifth Avenue from 34th to the Park. (Traffic flow north and south would be speeded, too, by cutting east-west traffic.) Much more attention should be given to the pedestrian, allowing him more direct routes between places frequently traversed, more separation from motor vehicle levels and generally a pleasanter, more interesting and less interrupted trip.

Entering the CBD, about 70 percent come by public transportation on a typical business day, yet the streets are filled to the maximum practical capacity with autos, taxis, trucks and buses, and congestion lasts throughout the day. Arteries entering the CBD are filled during the peak hours morning and evening. If new automobile entryways were built, they would fill up almost immediately, yet they would benefit very few persons. For example, an additional tube for the Queens-Midtown Tunnel, which has been proposed, would not ease the congestion in other tubes or on other arteries from Queens. It would quickly fill up during rush hours with additional motorists who switched from the subway or Long Island Rail Road for a marginal improvement (real or imagined) in

their trip. And all motorists from Queens would again be driving at present slow speeds. Moreover, it would be required only during rush hours, since the tunnel is not now filled to capacity off-peak. So the only benefit would come to the 6,000 new motorists who had previously used rail service. This is 1 percent of all entries during the day from Queens. The cost would be about $25,000 per added motorist, in the neighborhood of $4 per round trip for debt service.

The point is, automobile access to the Manhattan CBD cannot be improved by building more automobile entryways. There are too many people using low-quality rail service ready to fill any added capacity. The only hope for improving auto speeds is to increase speeds, convenience, frequency and comfort of subways, buses and railroads. Therefore, the Second Regional Plan proposes no added automobile entries to the CBD (though it does urge improved vehicular circulation inside and around the CBD).

Instead, we support the New York State Metropolitan Transportation Authority (MTA) plans for ending the most pressing problem of CBD transportation, gross overcrowding of subways from the Bronx and Queens. We also support the MTA program for speeding Long Island Rail Road schedules and increasing capacity and productivity. We anticipate (and support) a similar program for the other communities served by railroads in the Region, with state and federal financing.

These changes, along with improvements in subway comfort, appearance and maintenance, would satisfy CBD transportation needs for the next several years. But they would not provide for 400,000 more jobs that could well locate there. And if new transportation lines are to be built to expand capacity, they should be technologically advanced far beyond anything operating today or anything ready for construction. (See pages 86-89.)

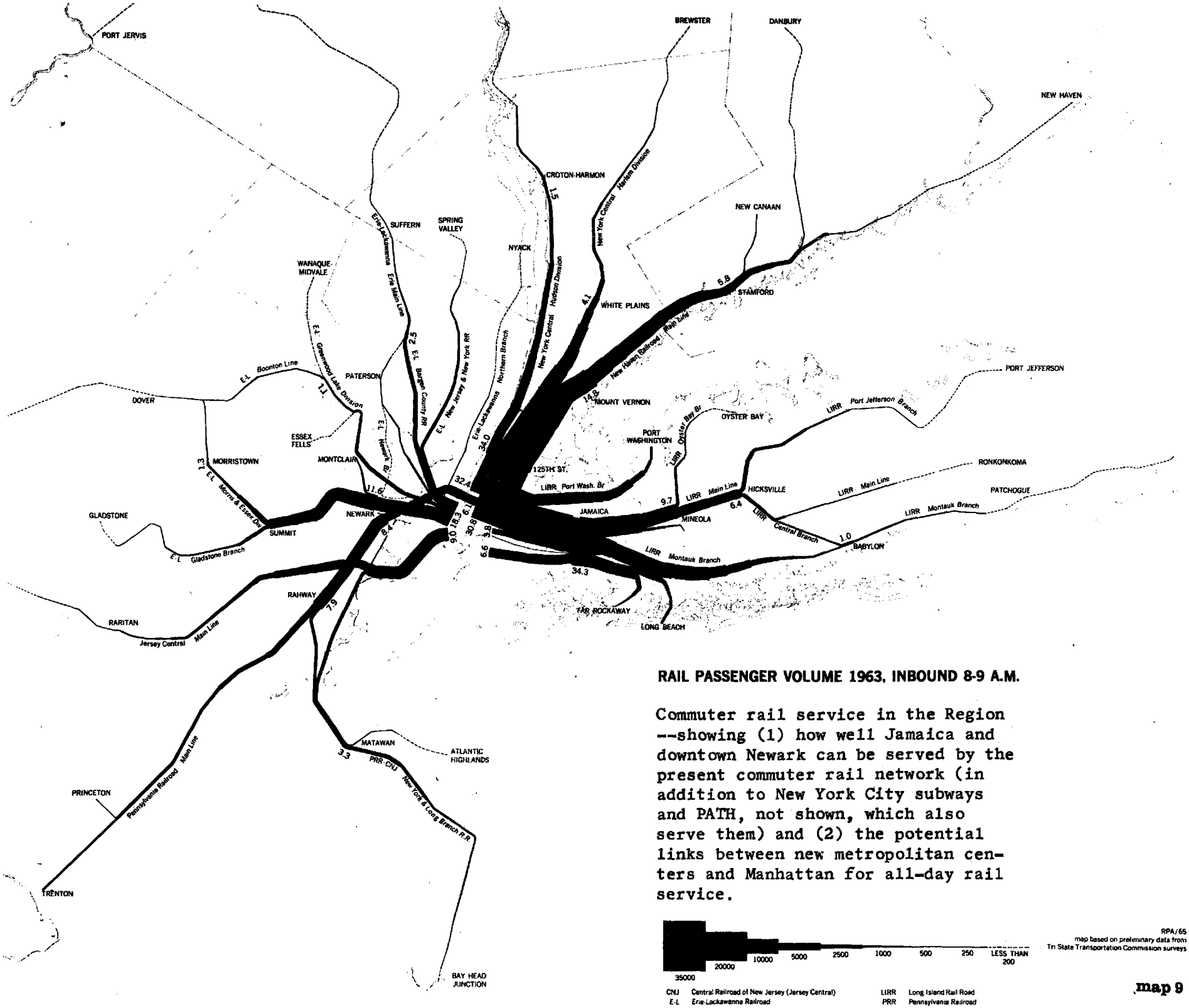
Centers in the Core. One of the advantages of Jamaica, downtown Brooklyn and Newark over other potential centers is that they can tap in on the rail system--railroad, subway and PATH--aimed at Manhattan. They, therefore, can be served by rail even though the total ridership to these centers is less than would be required for rail service built especially for them. Railroad and rail transit changes should be made with these Core centers in mind. If the addition of relatively modest investment could enhance the accessibility of these centers, it certainly should be added. Usually, only the trip to Manhattan is considered.

Of course, any expressway improvements in the area of these centers also should contribute to the centers' accessibility.

Centers outside the Core. Essential to the success of metropolitan centers outside the Core are these transportation principles:

*Each metropolitan community should have its own expressway network, tied of course to the regional expressway network. It should aim traffic at the center, rather than in all directions.

*Bus service on a right-of-way of its own (though perhaps only an expressway lane reserved for buses during rush hours) should begin long before the roadways are expected to reach capacity during rush hours with automobiles alone. Unless bus service is available and is fast, developers will choose to be assured of adequate access by finding an isolated site outside the center. Unless bus service operates on its own right-of-way during



RAIL PASSENGER VOLUME 1963, INBOUND 8-9 A.M.

Commuter rail service in the Region --showing (1) how well Jamaica and downtown Newark can be served by the present commuter rail network (in addition to New York City subways and PATH, not shown, which also serve them) and (2) the potential links between new metropolitan centers and Manhattan for all-day rail service.

35000 20000 10000 5000 2500 1000 500 250 LESS THAN 200

CNJ Central Railroad of New Jersey (Jersey Central)
E-L Erie-Lackawanna Railroad
LIRR Long Island Rail Road
PRR Pennsylvania Railroad

RPA/65
map based on preliminary data from Tri State Transportation Commission surveys

map 9

rush hours, it will not attract riders who have an available automobile and can afford the price of parking because it will always be slower than cars no matter how congested the highways are. But if buses have their own lanes, they will help to keep car speeds as well as bus speeds at a reasonable level. If more people switch to cars, speeds will drop until people begin to switch back to buses, and vice versa.

*Railroad service to Manhattan should be available throughout the day so these metropolitan centers can house office operations that have regular contact with Manhattan and so that other activities can be closely related to the Region's "mother city": colleges can share libraries and lecturers, hospitals can share specialists, etc. Some employees probably would commute to these outlying centers by railroad, though at suburban densities, probably only a small number will live near enough to a train station to gain as fast door-to-door speeds by train as by bus or auto.

The one transportation problem of outlying centers is reliance on buses for a large percentage of trips. Buses are not a popular mode in this Region. Analyses of current travel behavior indicate that mainly people with low incomes or without a car use the bus to get to work; by contrast, many of the wealthiest people in the Region choose to ride commuter trains. But greater comfort and the speed possible on a reserved right-of-way could make bus riding as attractive as the railroad. Since bus ridership will probably come most heavily from those living close to a metropolitan center, the average trip would not be long in any case.

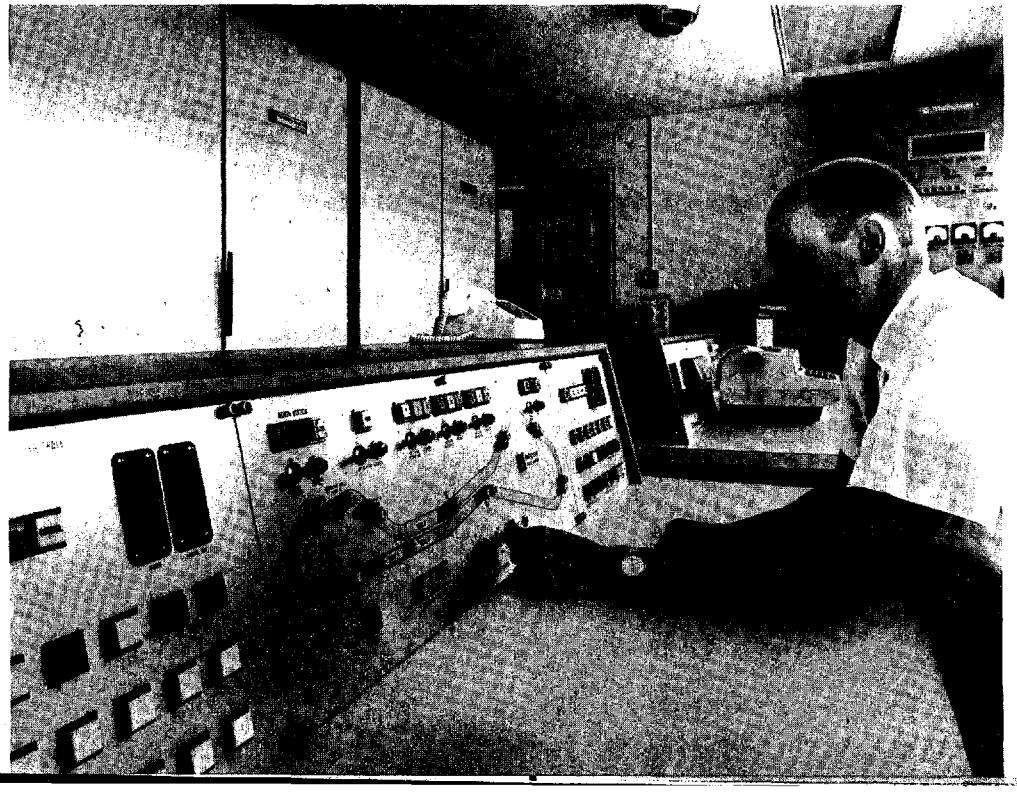
Circulation in these outlying centers could benefit from mechanical assistance to pedestrians, though if all of the activities we anticipate in a center serving a half-million persons were located compactly, a person could walk comfortable from one to almost all of the others.

In Nassau County, metropolitan activities were allowed to spread before a center was planned, yet most ended up within a square of about five miles on each side. The County is now making plans to keep the added metropolitan activities that will be coming to Nassau in clusters within this larger cluster and for a new kind of transit system to tie them all together--an automated electric bus on its own right-of-way. If that succeeds, it will give areas that fail to create a compact center with their initial metropolitan facilities a second chance to focus their urban life.

Facilitating the housing and old cities recommendations

We have said that housing patterns should allow everyone a conscious choice of better access to urban activities and less spaciousness around the house or vice versa. Access is measured in time, not distance. There is no incentive to live in high density if close-in transportation is much slower than transportation from farther away.

Measuring the advantages of high density residential areas in the same way as we measured the potential of centers--number of persons within ten minutes of each other as an indicator of varied opportunities--the old suburbs with fairly high density are almost as satisfactory as much denser city neighborhoods, because speeds decrease rapidly under present travel conditions as density



An automated bus--look, Ma, no hands on board! Nassau County will experiment with this vehicle to tie together metropolitan activities now spread throughout twenty-five square miles in the middle of the County. It may be feasible in special situations where densities are too sparse for ordinary buses because operating costs probably would be low.

rises.

Door-to-door average travel speeds in the Core by public transportation range from roughly 4 to 10 miles per hour (including time to and from the subway or bus plus waiting time). By auto or commuter railroad in or from the suburbs, the average speed is over 20 miles per hour. Plans for further speeding commuter railroad speeds will add to the area in which people working in New York City can live conveniently and so further attract residents who can afford suburban housing and commuter train tickets from the City.

To achieve the benefits of high density. To make the most of the compactness of this Region by harvesting the opportunities it can produce, travel in the Core should be much faster than it is now.

Benefits of improving public transportation in the Core would be very great, figured the way highway investment is evaluated, because so many people travel so slowly now. For example, if the 400,000 weekday riders to the Manhattan central business district from the Bronx could travel at a door-to-door average speed of 24 miles per hour instead of 12, cutting a typical trip from an hour to a half-hour, the annual user benefit would be $120 million. This assumes a value of 2½¢ for each minute saved, which is frequently used in highway cost-benefit studies.

Unfortunately, existing public transportation technology cannot achieve the required speeds at any cost, and the automobile cannot achieve them without eating up the space on which the density and therefore the accessibility rests.

Conventional urban rail systems cannot achieve much higher speeds in the Core because:

1. Most riders must reach the train on foot or by a bus that runs slowly on city streets, so stations must be close together, at most 1 to 1½ miles apart on the average.

2. With such close stations, acceleration and deceleration rates are most important in total trip times than top speed. They are limited by the demands of human comfort; people cannot easily tolerate being speeded up faster than 4 miles per hour every second, and preferably the acceleration should be less. That means that it must take at least 15 seconds to reach 60 m.p.h. and 15 seconds to slow from 60 m.p.h. to a stop.

3. Energy requirements for such rapid acceleration become impractical at high speeds, and a great deal of energy is wasted because the train must be braked to a stop very shortly after it has achieved top speed.

As a result, the new subways under design for New York City are unlikely to average more than 30 miles per hour compared to 22 miles per hour on present subway expresses. (The new San Francisco rapid transit system will average 45 miles per hour only because its stops are 2½ miles apart.)

Therefore, the number of residents living within 30 minutes of Midtown Manhattan by subway will be increased by little more than 15 percent, from about 1.9 million to 2.2 million, after construction of the new lines under the Metropolitan Transportation Authority program and after major existing lines are re-equipped. (Map 10.)

Another problem is the seventy-six miles of elevated transit structures that deface outlying parts of New York City. To replace them with conventional subways at current costs would require about $3 billion and would yield only marginal user benefits. Generally, we find that conventional rail transit shows satisfactory cost-benefit ratios only where existing rights-of-way can be used. Otherwise, heavy costs of construction and operation, coupled with low speed, make it a poor but sometimes necessary investment.

Possible solution: gravity-vacuum. It is for all these reasons that we look toward a true "quantum jump" in urban transit technology, one that could yield average speeds, with frequent stops, in the order of 60 to 90 miles per hour, which would have capacity comparable to that of conventional rail transit and might achieve construction and operational savings.

Of all the numerous "future technology" concepts that are now discussed, we see the gravity-vacuum principle as the only one with the potential to fulfill these requirements. Its unique characteristics, as we see them, are these:

1. It accelerates on an inclined plane (or on a pendulum path) with the aid of gravity, enabling it to develop an actual horizontal acceleration that is roughly twice the acceleration that passengers inside the vehicle feel. Thus, within any given criterion of comfort, substantially higher effective acceleration is possible than any horizontal system can achieve.

2. The gravity-vacuum approach seems to provide a most elegant system from the point of view of energy balance. It employs gravity for roughly 70 percent of the energy requirements to propel it. This energy is fully recovered without losses in braking as the train climbs uphill. It is efficient also because it stores energy in the evacuated tube so it can be produced by a stationary pump operating continuously rather than a motor that must be carried by the train and operate in bursts.

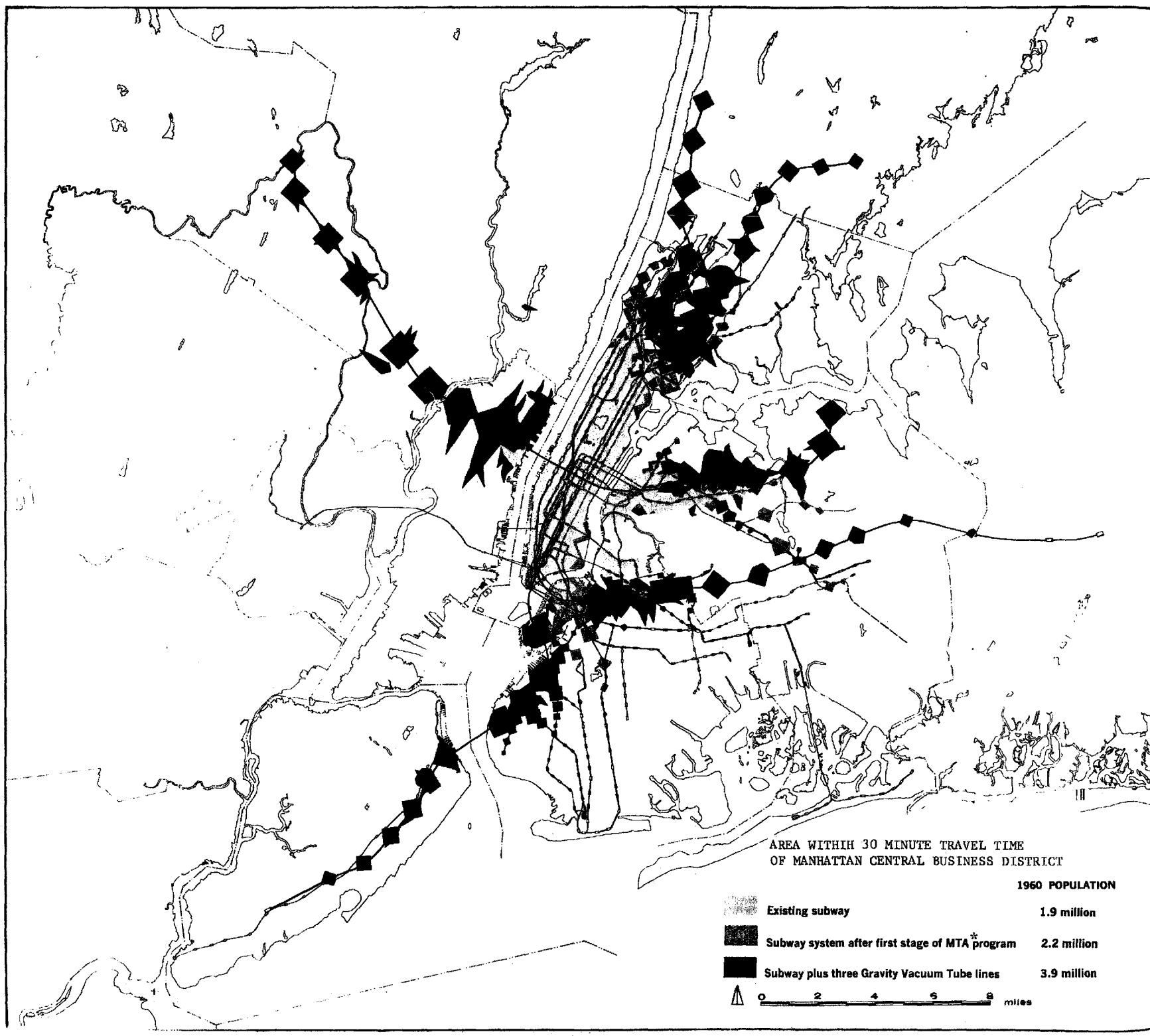
3. By employing a very compact cross-section (less than two-thirds the cross-section of conventional subways), this kind of train brings the expense of deep-level underground construction within reason, probably even using conventional tunneling.

4. It minimizes conflicts with surface development, avoids right-of-way problems, and has a truly minimal impact on environment.

5. It does not rely on the development of basically new types of power plants or suspension systems. Its major components are presently available. What is needed is design and testing--not new inventions. Thus, application within a decade may prove practical.

We believe, therefore, that it is urgent to direct research investment to this promising urban hardware ahead of research into other suspension and propulsion systems whose compatibility with the urban environment is questionable and whose application, in any case, is many years in the future.

A gravity-vacuum tube system would make living in the Core at present densities worthwhile for many people, and by enlarging the number of persons living within 30 minutes of the Manhattan central business district, it would allow a large increase in


AREA WITHIH 30 MINUTE TRAVEL TIME
OF MANHATTAN CENTRAL BUSINESS DISTRICT
1960 POPULATION
Existing subway
1.9 million
Subway system after first stage of MTA* program
2.2 million
Subway plus three Gravity Vacuum Tube lines
3.9 million
0 2 4 6 8 miles

map 10

jobs there with a substantial decrease in the discomfort and time expenditures of commuters.

Should the gravity-vacuum tube prove infeasible, it seems likely that Manhattan central business district jobs will not increase--throwing onto the outlying areas the pressures of locating another 10,000 office jobs a year. It is also more likely that New York City's population will decline somewhat so that plans should be prepared for systematic opening up of residential neighborhoods when vacancies occur.

Getting people to nature

The proposed corridor of green along the western edge of the Region and proposed and existing parks along the ocean and bays seem, on the map, to be close to the mass of population between. But they don't feel very close on a hot Sunday night. In contrast to the parkway planning era of the 'thirties and 'forties, the journey to work has held the attention of transportation planners recently, almost to the exclusion of the journey to play. Now they must shift attention somewhat from 8:30 weekday mornings to 4:30 Friday afternoons.

Unlike congested trip-to-work corridors, the routes to play cannot easily be decongested by improving public transportation, though use of trains and buses certainly should be encouraged. For husbands commuting on weekends, public transportation still works and should be more widely available. The Long Island Rail Road's club car trains to Montauk on Friday afternoons are very popular. But for families, even if equipment weren't a problem, fares total much more than the automobile costs.

Three alternatives. So the basic choice on the whole seems to be between more highways--very expensive per trip because of the few periods during the year when they are needed--and a staggering of journey-to-play hours. We already are beginning to see some staggering: cars leaving the City earlier and earlier on Friday and returning early Monday morning as well as later and later Sunday night.

A third alternative is making the city a real summer festival. More outdoor recreation in the city, coupled with the spread of air conditioning and winter vacations, may help to take pressures off the journey to play.

Our conclusion is that as leisure takes over more of our lives, we probably will be willing to spend more of our growing incomes on getting to second houses and weekend camp sites and so supporting more highways to them. But the other two alternatives will be chosen too, in part.

Following design principles in transportation planning

All four design principles recommended in Chapter VI apply directly to the transportation system.

Articulation. The twelve-lane "dual-dual" expressway, a band of pavements over 200 feet wide, is certainly unarticulated, and, to many, highly disagreeable to see and to drive on. Corridors requiring more than eight expressway lanes generally should depend on public transportation to take the excess load or be broken up into narrower corridors.

Geometric clarity and continuity. In contrast to the Region's parkway network, planned in an earlier era (Map 11), our expressway network is poorly laid out in many places. It lacks design clarity. Expressways are bunched where land was available. They are not provided where need was great but obstacles were also. Opportunistic planning by accretion resulted in a confused network (Map 12).

Achieving design clarity of an expressway system depends upon acquiring rights-of-way in advance. Arguments for acquiring rights-of-way for all expressways the Region seems likely to need are the same as those for acquiring parks now--saving total costs, avoiding political problems of disruption and helping to shape urbanization by prior announcement of where highways will go.

But it is already too late in many places to build the network without running into obstacles. When that happens, the choice is between wiggling the expressway to avoid the obstacle or moving homes and businesses. A similar dilemma is whether to cut through parkland and landscaping along a highway or through houses and businesses.

Politically, it is much easier to bend a road or cut down trees than move anyone, but the politician does not have to face future generations at the next election. Citizens-to-come should have some voice. As a general rule, we would recommend a presumption for moving obstacles if necessary to preserve good highway design and greenery, with much higher compensation than is usual today for all whose lives are disrupted by the highway--tenants as well as owners--and with full assurance of satisfactory relocation, so they do not mind moving. As in building centers (Chapter III), generous compensation usually would amount to a very small part of the whole project budget and often would save more money than it costs by speeding and easing land acquisition.

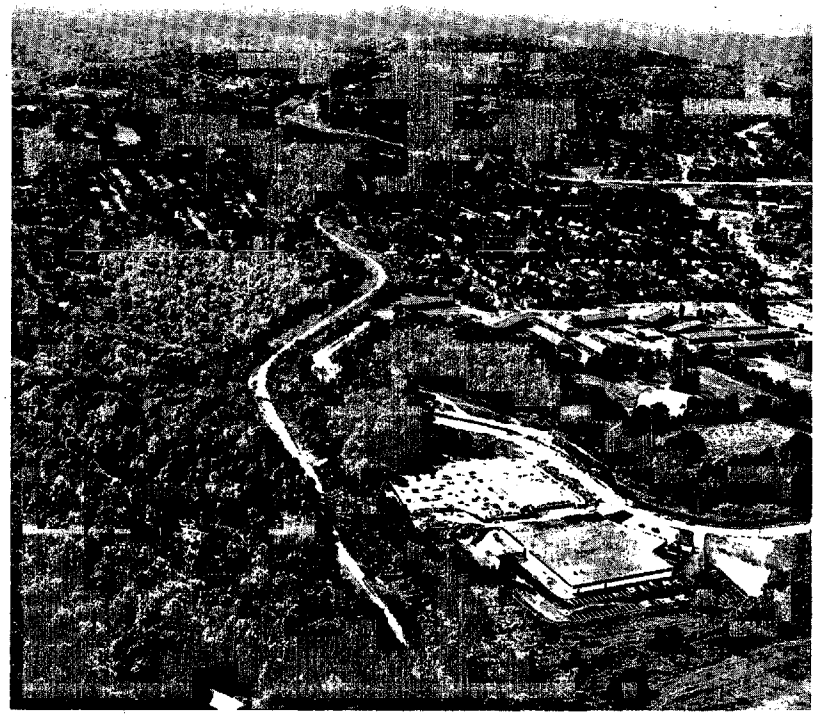
However, each piece of land must be judged on its own. Where a genuine community would be torn apart--not simply a group of buildings moved, more weight should be given to that consideration.

There are many instances where the choice is relatively easy--not between eliminating a community or a park. For example, the Bronx River Parkway was widened and straightened recently, cutting many old trees and ruining lovely landscaping that dated back to the early 'twenties. An alternative would have been to make the parallel Central Park Avenue into a limited access highway. This would have eliminated a great deal of commercial development along the Avenue--discount stores, primarily--but elimination of this unsightly strip and its relocation in a more compact cluster would have been an asset for central Westchester.

Identity. Many points along our transportation system lack identity. Transportation planners should consider their possible contribution to more striking identification of places along the way. For example, each subway station might be made somewhat distinctive, and one consideration in locating a highway might be that it overlook places which can be readily identified.

Maximizing choice of mode

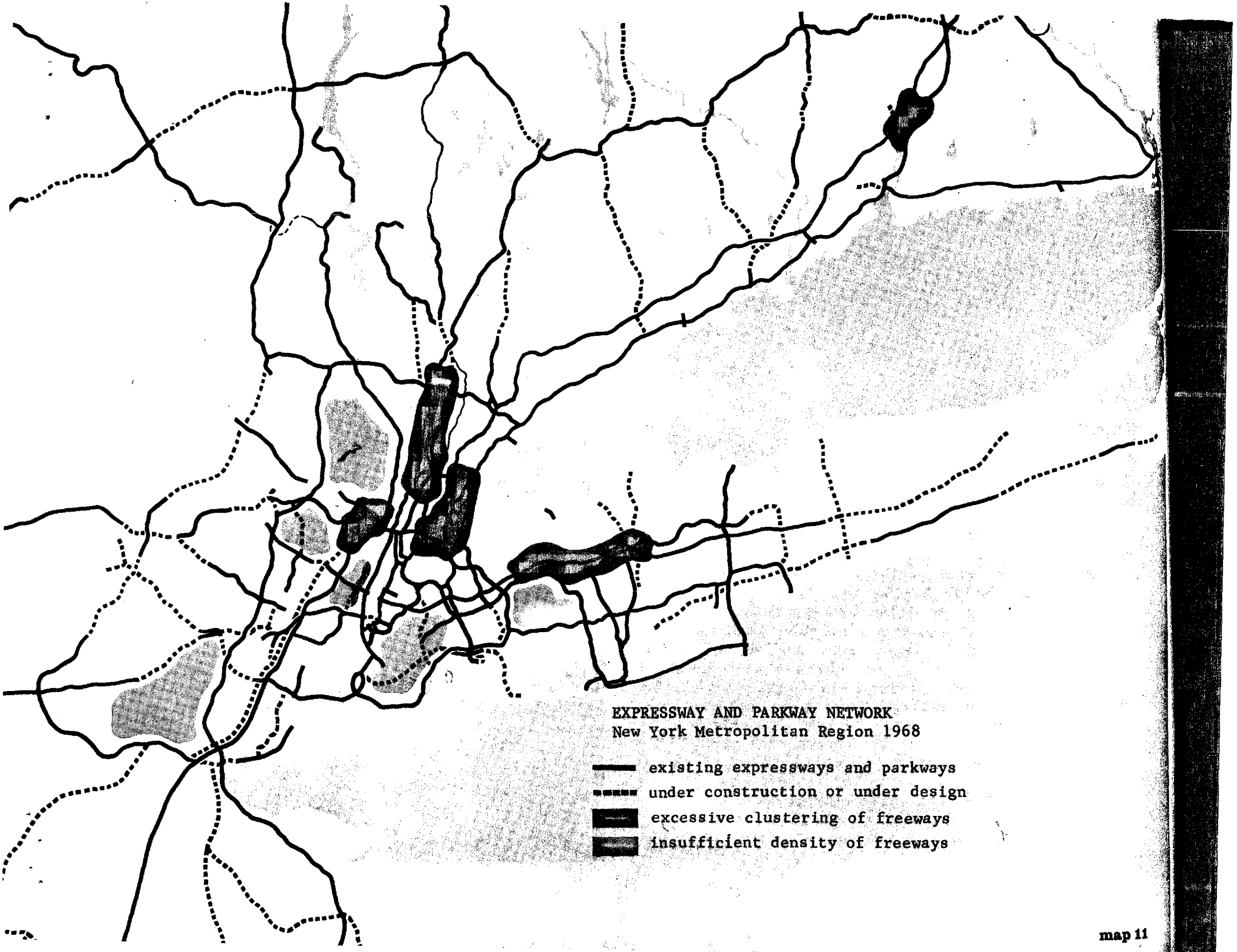
Providing as many people as possible with a choice of public transportation or driving is more related to where metropolitan facilities are



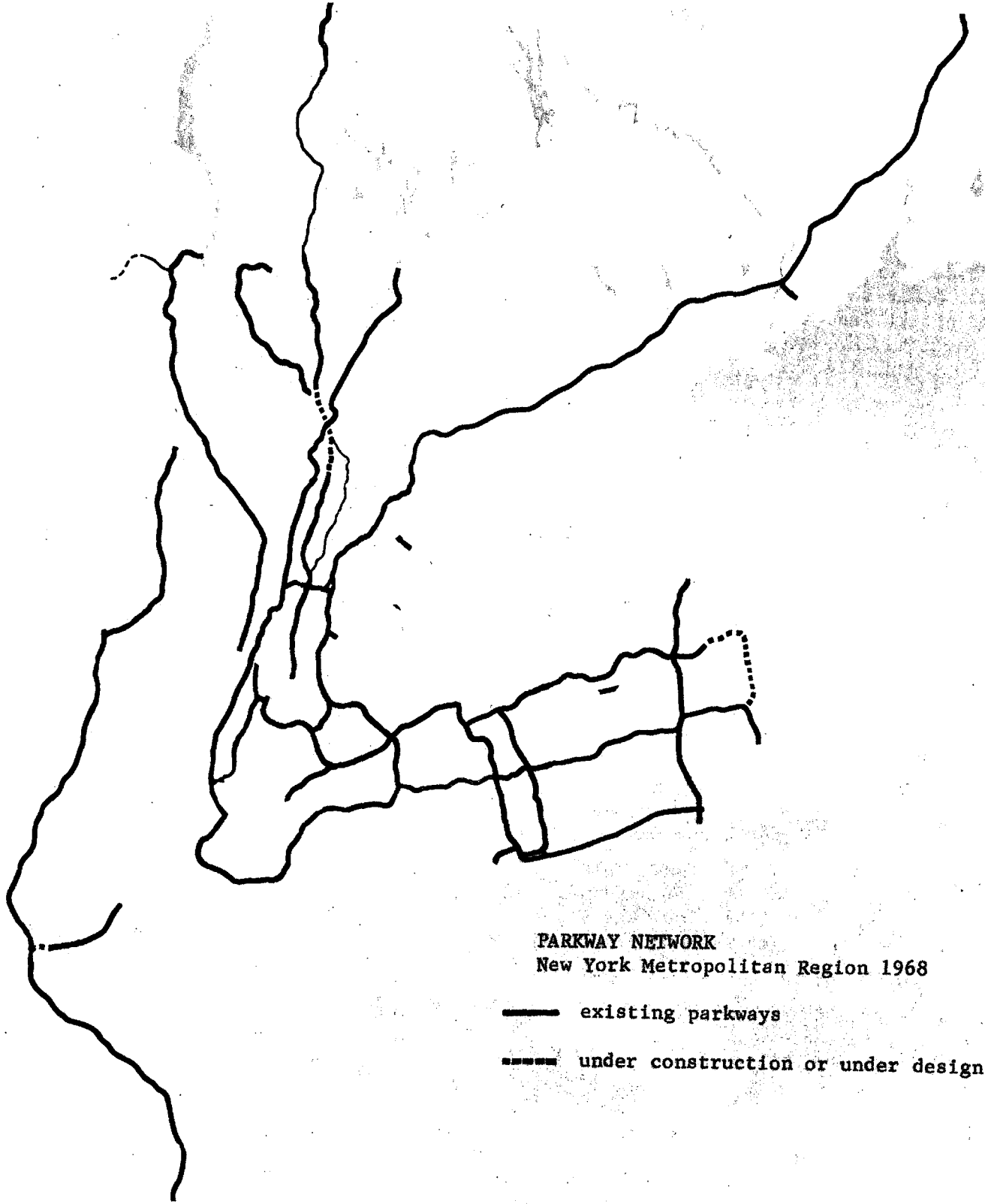
To assure a continuous and clearly designed highway system, rights-of-way should be purchased well before they are needed. This was done, for example, for the Sprain Brook Parkway in Westchester County, which remained a green strip for many years until needed recently for the road. (above)

Elimination of landscaping, as here during the widening of the Cross County Parkway in Westchester, often is the alternative chosen when more highway lanes are needed in an area. Frequently a better alternative is clearing of businesses from the side of a road and making it into a limited access highway, or even moving other types of development, with generous compensation for those disturbed. (right)

Twelve-lane highways cut a 200-foot paved swath through city and country. A better way of handling that much traffic in a single corridor is to provide public transportation (which can be supported when so many people want to go along the same path) or to break up the large travel corridor into two smaller ones, somewhat separated.


EXPRESSWAY AND PARKWAY NETWORK
New York Metropolitan Region 1968
existing expressways and parkways
under construction or under design
excessive clustering of freeways
insufficient density of freeways

map 11



PARKWAY NETWORK
New York Metropolitan Region 1968

existing parkways

under construction or under design

located and how housing is arranged than to transportation policy, as we already have pointed out. This Plan would maximize that choice. But much can be done in present development patterns.

In residential areas of the old cities that are too crowded for curb parking, off-street parking near homes should be arranged--for example by clearing enough land for a parking structure serving a whole block. Missing expressway links should be built to make driving a reasonable choice.

To increase the availability of public transportation, the automated electric bus to be tested in Nassau County is one possibility. Because it eliminates operating personnel, it can be run frequently and still economically where relatively few people use it.

In areas of medium density, better service on ordinary buses might be possible if routes and schedules were planned and reorganized by a public agency such as the county, in cooperation with major employers of the area. When this is done, routes and schedules should be much better publicized than they are.

Setting standards of transportation quality

Establishing priorities. In highway planning, priority often is set by cost-benefit studies, in which the benefit is mainly the time that a new highway would save for all those now travelling between two points.

When tempered with other considerations (see below), this is a reasonable way of setting priorities, but it is used only within relatively limited categories, not for transportation overall. Priorities among the categories often are out of joint. For example, highways in the Interstate system are considered as a group. They receive 90 percent federal financing. Other federally-aided highways are considered separately; they receive 50 percent. There is a totally different formula for federal public transportation aid: two-thirds of that part of capital improvements that cannot be repaid from fares. But appropriations for public transportation have been so small that this Region received only $15 million in public transportation aid from the federal government the first three years of the federal grant program, while federal highway grants averaged about $100 million a year for the 1955-65 decade. This is the equivalent of about $300 million dollars for highways during a period in which all other modes got $15 million. So the logic of cost-benefit analysis is not being applied to transportation as a whole but only within special categories of it.

If transportation in the Region is seen as a unified product and financed accordingly, we will all get much more benefit for the cost. Governments have acknowledged that transportation is a single program by reorganizing their agencies into Departments of Transportation in all three states of the Region and in the federal government. But without unified federal financing, many of the benefits of seeing transportation whole will be lost.

Since all parts of the country have different patterns of development requiring different ratios of automobiles to public transportation and different types of public transportation, it would seem much more efficient for the federal government to give combined transportation payments,

leaving it to each state, guided by its regional planning agency (like Tri-State Transportation Commission in this Region), to allocate expenditures.

Chart 4 illustrates the different transportation needs of different areas. It demonstrates that the density of a place determines how people will travel to it. Each bar represents a square mile of the Study Area--those to which the most trips are regularly made. The darker shade at the bottom of each bar shows the number arriving by automobile. The lighter shades above it show the numbers arriving by all other means (except on foot). Note that the number arriving by auto does not vary much. The places which draw fewer trips and the places drawing the most--up to the densest square mile in Manhattan--have very nearly the same number of people arriving by car, even though the total number arriving by all modes in Manhattan on a typical day is 35 times the number arriving in the smaller centers. The difference is made up by arrivals on the subway, railroads, commuter buses and taxis. This is true for almost all the centers of activity in this Region: the number of trips determines the form of transportation; different types of places need different modes.

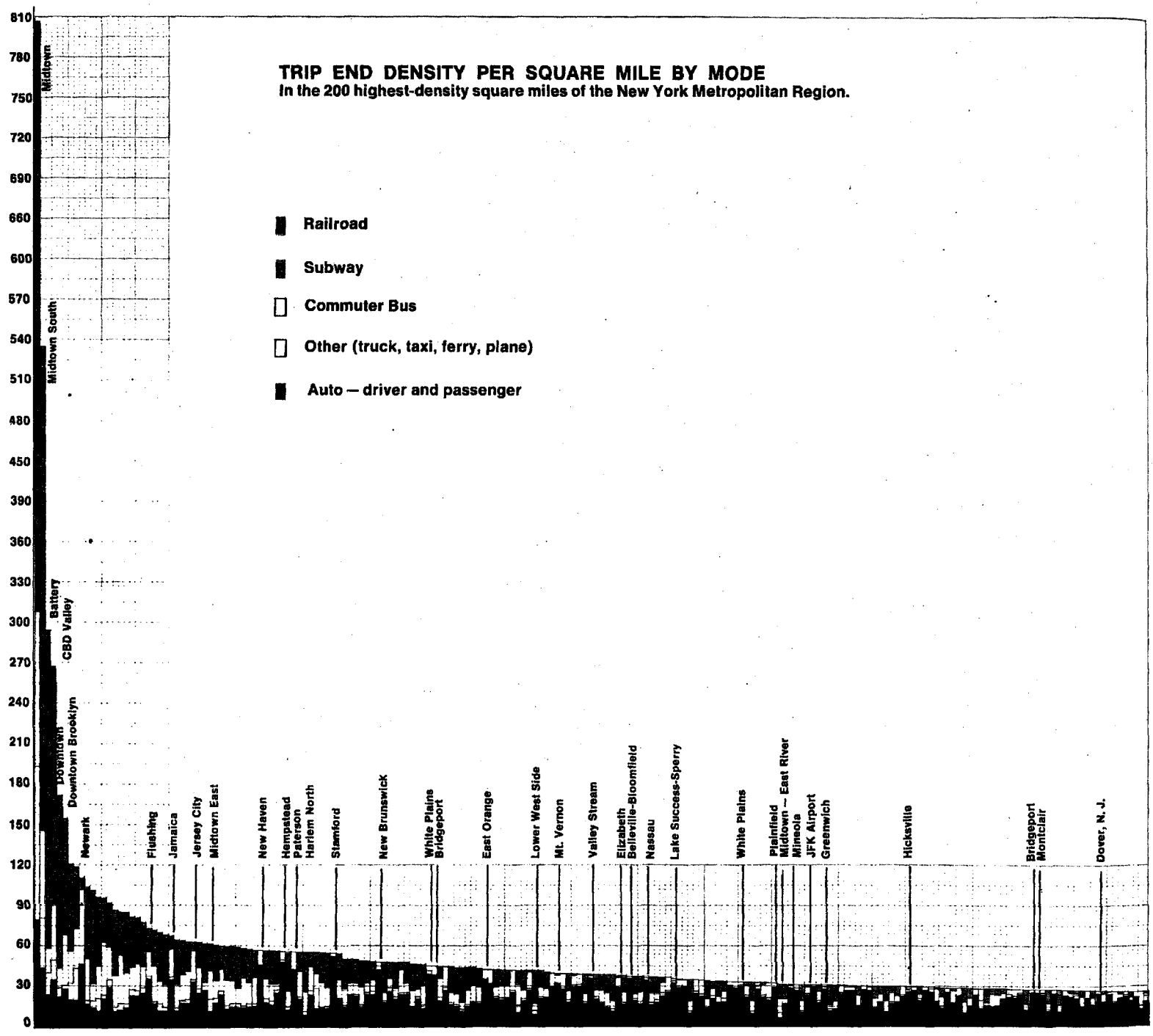
Spokesmen for motorists often say it is unfair to mix transportation funds because a large part of federal highway grants comes out of the fund garnered from highway user taxes (gasoline and other sales taxes on automobile products). But in many situations in this Region, only public transportation investment can help the motorist out of congestion.

The appearance that motorists are paying their own way out of highway user taxes is deceptive in any case. They may be paying for all highways in some places, but in this Region, they could never pay the cost of bringing everyone to the Manhattan central business district by automobile. Yet by considering all modes separately, they are offering to. Everyone switching from public transportation would have to be accommodated on the roads, and all motorists would have to pay equal shares of a monstrous bill for multiplying the auto entryways.

Automobiles and taxis bring only 9 percent of the peak-hour arrivals to the CBD while commuter railroads and subways bring in 80 percent. Whatever mode of transportation is used for the peak hour, the capacity that is not needed the rest of the day will add to the cost of that service--whether it is extra expressways or extra train service. The motorist has just as much responsibility for paying the unavoidably heavy peak-hour costs as the rail rider. Using rail for peak loads is least expensive to a very large center like the Manhattan CBD. Using automobiles would be most expensive. It is therefore both fair and economical to use federal grants for transportation and not for each mode separately.

Determining total investment. Cost-benefit studies are important guides to priority among transportation projects, but they cannot as readily be used to determine how much should be invested in transportation as a whole. There are public projects of all kinds that seem likely to throw off more benefits than they would cost, many more than governments would be allowed to invest in. Therefore, the question of how much all governments should invest in all transportation must be determined in the usual governmental budgetary process. Is transportation more important than parks, than welfare, than public health, than schools? Elected officials must decide.

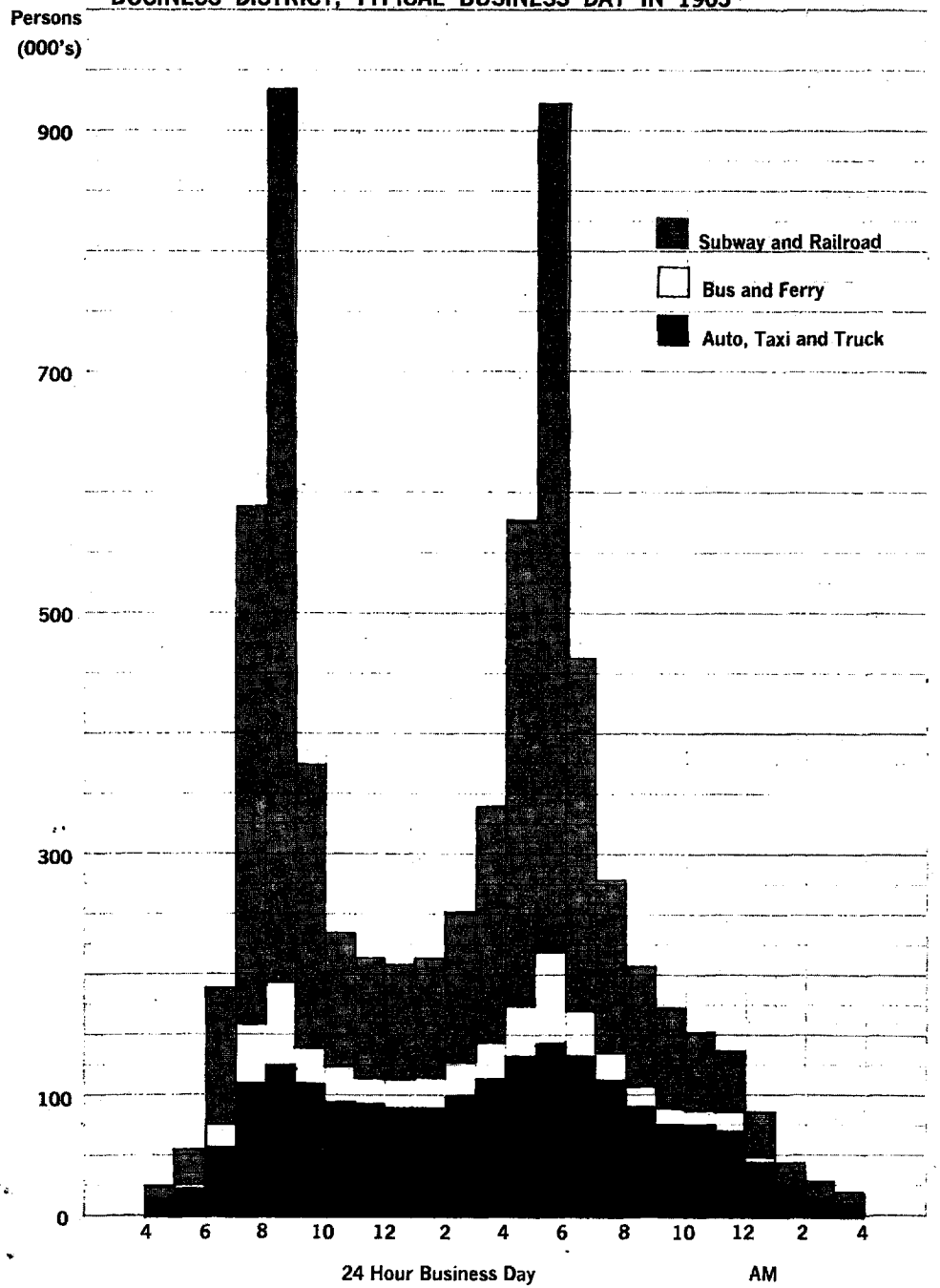
per 24 hrs.



Regional Plan Association 10/68
Source: Tri-State Transportation Commission

Chart 5

ENTRIES AND EXITS, THE MANHATTAN CENTRAL BUSINESS DISTRICT, TYPICAL BUSINESS DAY IN 1965



Determining total space. Complicated as such budget determinations are, deciding how much space to devote to transportation has become even more difficult. Looking at alternative money expenditures, the federal government chose to invest in a supersonic airplane. But it is much less certain that we will allow the plane to intrude into our airspace at supersonic speeds.

That is an extreme case. A proposed expressway raises the same issue in the everyday politics of the Region: at what point does transportation intrude so much that there is no point in travelling--it won't be worth getting there anyhow.

On the one hand, the faster we can travel, the more opportunities we can reach while living in a given amount of space. That people are always looking for enlarged opportunities born of better transportation is demonstrated by the phenomenon of "induced travel." Whenever a better artery is built, many more people travel on it than ever went between its two termini before.

On the other hand, fast travel means intrusion into our space, often with noise, ugliness and gases that are unpleasant and may be dangerous. At some point, in fact, too much transportation separates facilities that it was intended to join, particularly if a central business district tries to provide enough streets and parking so that everyone can drive. That people are getting irate about these intrusions is demonstrated at every public hearing on a new highway and every proposal to build a new airport.

The choice between space and opportunities mainly relates to highways and airports since almost no rail lines on new above-ground rights-of-way are being proposed. Regional Plan will propose an airport policy shortly so we will only discuss highways here.

Seven out of every ten trips made in the Region are by automobile. Even if all the proposals of the Second Regional Plan were adopted, that percentage is unlikely to decrease. In fact, it will take intensive effort to keep it from growing. We can expect an increase of about 85 percent in motor vehicle registrations in the Study Area over the rest of the century, and, as a result, a comparable increase in miles travelled. If the increase in per capita automobile travel over the next thirty-five years follows the trend of several decades, with some dampening (travel increases relate to income and number of cars), even where there is stable population, there would be a rise of some 25 percent in vehicle miles travelled.

Is this increase worth the space?

The highway engineer justifies a proposed highway on the basis of need. Present traffic is causing congestion; future traffic will slow to a stop.

But the objectors reply that "need" is an elastic word. Soon the proposed highway will be filled with people who never "needed" to travel between those two points before--"induced" travel. If this is true, after the new highway is built, people will "need" another highway. And another.

The objectors are posing the relative value of added opportunities--the trip people take at high speed that they would never take at lower speed--against the negative value of transportation intrusion. At what point does the intrusion weigh heavier than the opportunities?

These questions usually become relevant when expressways are proposed to relieve congestion on a local highway or street. The questions are seldom asked this way, however, because by the time a new expressway is proposed, people already have committed themselves to a situation in which they have to get from point A to point B, congestion or not, and an expressway is a clearly superior way to get there. It allows twice the speed of other highways, with a third to a fifth the accident risk, and it uses a fourth of the space for the same vehicle miles travelled. So it is important for everyone, motorist or not, to get as many of the total vehicle miles travelled onto expressways. The problem is to avoid building so many expressways that more travel is induced than the added intrusion is worth.

When about 10 percent of all road pavement in an area is in expressways, about 35 percent of all vehicle miles travelled (VMT) tends to be on expressways. At that point, the area will have about 40 percent more VMT than a similar area without any expressways. That 40 percent can be considered--very roughly--the induced travel, and it is small enough not to worry about if the main purpose is to transfer traffic to an expressway without producing too much more travel. Raise the figure to 20 percent of the road pavement in expressways and more than half the VMT tend to be on expressways. Then there will be 2½ times as much traffic in the area compared to a similar area without expressways. The added traffic will be more than the expressways themselves carry. The expressways have caused an increase in travel on other roads as well, probably to reach the expressway.

This should not imply that induced traffic is bad; by itself, without considering its side effects, it is good. In fact, the bigger an area is and the higher its income, the more per capita travel. The goal here is to establish a process through which the Region can consciously decide the degree of intrusion it will tolerate for a given level of opportunities (reflected in miles travelled). Individual decisions to use a new artery do not indicate what people want. A person can use a highway and still wish it had never been built.

There is no objective way of balancing opportunities against intrusion. It must be done through the normal political process (with the issues more clearly presented than they usually are in highway hearings). But the growing opposition to highway intrusions suggests that the inner parts of this Region are looking for ways to keep added intrusions out.

We are proposing, therefore, that the Region aim at about the level of 10 percent of the road pavement, 35 percent of the VMT on expressways. This probably would result in some added traffic (and opportunities) but only a moderate amount. And it would improve conditions significantly for the miles now travelled.

This standard of expressway service is the existing condition in Queens, Westchester and the Bronx. The New Jersey sector of the Region now has about half as many vehicle miles travelled on expressways as these three counties. Other parts of the Region fall somewhere in between, on the whole closer to the three high counties.

Note that since the measurement is based on a percentage of vehicle miles travelled, expressway networks in different parts of the Region would look quite different even if they all

carried 35 percent of the vehicle miles travelled. There would be more miles of expressway per person in low-density Dutchess County than in Queens because each person travels more miles. There would be more miles of expressway per square mile in Queens than in Dutchess because there are many more miles travelled per square mile in Queens.

There are places where exceptions to the 35 percent standard must be made:

First, entryways to Manhattan should not be increased (as explained above), but new expressways within the Manhattan central business district (the Lower Manhattan Expressway and two under Midtown) probably would induce little traffic, would save very large amounts of travel time, and would make homes and facilities along nearby local streets much more habitable.

Second, rebuilding existing suburban highways to limited access standards probably would induce little traffic and save considerable travel time and accidents. Routes 17 and 22 in New Jersey, Central Park Avenue in Westchester and Jericho Turnpike on Long Island are examples of candidates for highway "renewal."

Third, in areas where rights-of-way can be acquired before land costs have risen to urban levels and where development can be planned in conjunction with the expressway network, a higher standard of expressway service may be justified.

Finally, we want to emphasize that the standard proposed here is not presented as the "right" one. Only the public can decide that through regular governmental channels; this is not an expert question for planners to resolve. The standard is merely presented as one that would result in a minimum expressway network that gets a large segment of traffic onto expressways but allows for only moderate growth in per capita automobile travel.

Route 22, a candidate for "renewal" to an expressway, eliminating the bordering commercial activity and speeding more traffic more safely.

VIII. FOR DISCUSSION

The following questions on The Second Regional Plan draft are designed for discussion in groups of 10 to 20 persons lasting about two hours. It is recommended that the questions be taken in order, though some may elicit little discussion and can be passed over quickly. These questions, on the other hand, may lead to others that are of interest to the group.

Indented portions explain the questions further or suggest subtopics that might stimulate discussion.

On centers

1. Do you have any basic disagreements with The Second Regional Plan proposal for metropolitan communities, each organized around a large metropolitan center?

> (Please do not argue about the boundaries of the metropolitan communities (Map 2). They will be discussed county by county at later meetings.)

2. What obstacles do you foresee in achieving metropolitan centers and communities and how would you recommend that they be overcome (assuming you agree with the proposal)?

> In areas you know about, who should take the initiative to choose the place for the center and begin organizing it?

On housing

3. Do you agree that housing should relate to the metropolitan centers as iron filings to a magnet?

4. In housing-planning-zoning policies, how would you propose to blend local concerns with regional concerns?

> Local concerns include good local design and a good local community. Regional concerns include an adequate total housing supply and opportunity for all income groups to live in any metropolitan community.
>
> Do you agree that more compact and lower-cost housing types should be available in all parts of the Region (whether centers are built or not)?

On old cities and poverty

5. Do you agree that cities should be relieved of the costs of poverty-related public services and more of the cost of schools?

> If so, is it better strategy for cities to work for this than to beg federal and state governments for as much money as possible for any kind of program?

6. If cities were relieved of these expenses and much more money were being spent to help the poor out of poverty, what population policies would you propose for city governments in the Region?

For example, how many people should be encouraged to stay in the cities (increased population, stable or decreased)? What types of people (families with children, what income groups)? How would you try to influence these population shifts?

On nature

7. Do you agree with Regional Plan's park proposals?

Is the amount of parkland too much or too little? Is the proposal to buy right away all parks needed for the foreseeable future acceptable?

8. How much emphasis should be put on keeping land in its natural state?

For example, what public policies, if any, should encourage people to live in a smaller area than they are likely to without such efforts?

On urban design

9. What design and environmental conditions most annoy or depress you and warrant the highest priority in improving the Region?

For example, should there be more greenery in the cityscape; buildings and spaces that tell you where you are; easier and pleasanter walking in city, suburb and country; cleaner air, cleaner rivers and streams?

10. Does the design difference of Rockefeller Center seem to you sufficiently superior to rows of office buildings along an avenue to justify the extra effort to build this kind of cluster?

11. Would the urban design principles enunciated for Midtown Manhattan make you enjoy working in Manhattan more (or help you tolerate working here)?

For example, the access tree for smooth movement to the office; better conditions for the pedestrian; several levels of movement; more clustering of office buildings and more low buildings and open spaces.

On transportation

12. Do the Plan's policies call for too much or too little public transportation, too much or too little auto access?

For example, is bus travel agreeable enough to allow large centers? Or is the intrusion of highways so offensive that residential neighborhoods should be designed more tightly to reduce driving?

13. Is speeding travel for people living at city densities worth the investment needed to explore gravity-vacuum transit further?

In other words, should opportunities for people living at high densities be multiplied by much faster, more pleasant transit or should thinning out of the city be encouraged instead?

On population growth

14. Do you agree that the anticipated population growth of the New York Metropolitan Region, 1965-2000, should not be inhibited?

If it should be inhibited, about what population increase should be aimed at?

On the Plan generally

16. What criticisms would you have of the Plan over-all?

17. What steps would you recommend right now to achieve the Plan's aims (assuming you agree with them generally)?

NEWARK STAR-LEDGER
Dec. 28. 1966

An opportunity

The problems of the Hudson River are not confined to the pollution of its waters. Its scarred, pockmarked shoreline south of the George Washington Bridge, on the Jersey and New York sides, is in the throes of transition, virtually none of it with planning and coordination.

With about $3 billion worth of construction planned for this potentially valuable area, the unrestrained bulldozer can wipe out the "unique natural feature" of the majestic Palisades.

The Regional Plan Association, a group that has maintained a vigilant watch on redevelopment in the metropolitan area, has proposed a remedy for the hodge-podge, unrelated construction now taking place or planned for the lower Hudson River area.

The planning association has proposed that the 11 municipalities on the Jersey shore and New York City on the other side draft detailed, comprehensive plans for each side. This concerted, cohesive development would project a sensible land use plan for both sides, preserving the natural characteristics of the Palisades.

There is an opportunity here to develop both banks of the Hudson River into an integrated residential-business area. The alternative would represent a tragic, irretrievable loss of potentially valuable property, and this is likely to happen if the present pattern of uncoordinated planning is continued.

This could be avoided by maintaining strict control over building design, proper zoning and provision of highways for increased transportation needs resulting from development of the area.

The plan recommended by the RPA would include building and architectural design that would complement the natural attributes of the Palisades, a freeway along the waterfront from the Washington Bridge to the Holland Tunnel, and the creation of a public agency to protect the Palisades.

A meeting of the New Jersey municipalities involved has been called by State Conservation Commissioner Robert A. Roe to review the possibilities of a coordinated plan for redevelopment on the Jersey side of the Hudson. This is a matter of sound business for these municipalities, beyond the desirable esthetic value that would accrue from an orderly, integrated plan of development.

Many of the concepts of The Second Regional Plan have won support from major newspapers. Every Second Regional Plan background publication has had enthusiastic editorial response similar to these examples. Some of the concepts have stimulated public action already: several steps toward a Jamaica Center and Nassau Center, the public transportation bond issue in New York State and acceptance by the New Jersey Legislature of the full recommendation for railroad modernization investment in its proposed bond issue, limited tests of the gravity-vacuum transit theory, and several recent ocean beach acquisitions, including Breezy Point and Sandy Hook.

BERGEN RECORD
May 18, 1967

Love Letter To A City

From a bard that goes by the unlikely name of the Regional Plan Association a startled world heard yesterday a song in praise of the city.

That's news. For too many years the word "city" has functioned mainly to serve notice that the word "congestion" or "slum" will be along immediately — involved is the same conditioned reflex that makes the word "juvenile" a mere prefix of the word "delinquent".

The R. P. A. remembers that the city not only is grim and great and gallant, a magic whose elements are golden towers and struggle and shining people but is the marketplace, the laboratory, the counting house, the teacher, the haven, the trading post — the city is co-operative Man, and if we didn't have it we should be compelled to invent it tomorrow.

The greatness of cities and the inevitability of their growth are the gist of the interim R. P. A. report just made public. It is titled "The Region's Growth", it is a highly digestible analysis of the economic and population projections for the New York metropolitan area between now and the end of the century, and it with a shelfful of companion studies will constitute the substructure of the R. P. A.'s second regional plan for the 31-county area.

The R. P. A. does not deceive itself; it is aware that as of today "city" means "problem":

The fact that metropolitan areas continue to grow all over the world, in many countries defying strong governmental measures aimed at limiting their growth, testifies to the universal magnetism of large urban areas. . . . In any case, most of the problems of the largest urban areas of the world — congestion, dehumanization, poverty, crowding, long work trips — are not inherent in size and can be mitigated without limiting growth.

But, problem or no problem, the great city is one condition of Man's fulfillment in the world as is. This is the R. P. A.'s premise.

Perhaps the Regional Plan Association underestimates the doggedness of powerful forces' determination to leave problems unsolved. But again perhaps it is justified in its faith that the questions which seem to us now so massive — questions of inequality, illiteracy, cyclical poverty, prejudice based on irrelevancies of race and religion — can be contained and reduced.

Its specific recommendations will affect the thinking of planners in the whole of the loosely so-called megalopolis ranging from Boston to Washington.

It proposes an Appalachian park system twice the size of Yellowstone Park, a system whose 10,000 square miles from the Shenandoahs to the Green Mountains would be within reach of one fifth of the nation's people. It proposes 160 more miles of ocean front be made public parkland. It proposes a network of green space structured on the great bays and rivers. It proposes drastic speedup in ground transportation. It proposes planned development of new downtowns, new commercial plexuses — new cities.

The city is not a dirty 4-letter word. It is the shape of the future, and the R. P. A. is right in summoning us to go out to meet it with a cry of recognition and gratitude.

The seeds of strong support for each of the concepts of The Second Regional Plan already exist, albeit separately, in one or more organizations of the Region. Each organization can initiate action on that portion of the Plan that expresses its major concern.

Architecture

Slab City Marches On

The New York Times
March 3, 1968

By ADA LOUISE HUXTABLE

IN a preview of its second Regional Plan, a study that comes 37 years after the first Regional Plan, the Regional Plan Association zeroes in on New York's CBD. That is planners' professionalese for the Central Business District, in this case Manhattan, otherwise known as chaos solidified, Mammon triumphant and real estate undefiled. It is also, on occasion, paradise lost and garbage uncollected.

The preview is an exhibition at the Architectural League, 41 East 65th Street, that deals with one section of the upcoming report called Urban Design: Manhattan. This important and illuminating show will run until March 15. The full documents for the entire New York metropolitan region will be released next month.

The Regional Plan Association points out that New York's CBD, or the city's business and cultural heart, has no plan. This is not a surprise to New Yorkers, who have been watching a kind of postwar carnage in the 8.6 square miles below Central Park.

The game, as it has been played, is simple. The private developer proposes and disposes. He has built, in a speculative lottery and at considerable profit, a total of 70 million square feet of standardized rentable office space from 1947 through 1965, and 1966 to 1971 will see 40 million more square feet of the same. The result, according to the Regional Plan people, is Slab City, and they view it with alarm.

They summarize as follows: "First, the growing malfunction of this enormous machine for doing business is causing congestion and friction that increasingly tax the levels of human tolerance. Second, the vivid imagery and distinctive form and appearance created by Manhattan's clustered office towers, which mean Manhattan in the eyes and mind of the world, are in danger of disappearing under a spreading Slab City, lacking the variety and identity of the special districts which exist today."

The answer, as urged in the exhibition and report, is urban design, a discipline of which New York, of all great cities, is touchingly innocent. Le Corbusier called New York a catastrophe over 30 years ago; today it would be called a happening. Those who have embraced the currently fashionable intellectual stance of admiration for the accidental esthetic complexities of chaos can come and get it, hot or cool. (There is a curious parallel here with the urban sophisticate's admiration of primitive societies; their simple charms frequently include ignorance and disease.) Most chaos lovers do not live in it; they just like the effect.

•

Seventy-seven per cent of New York's daily commuters come underground, by subway or rail. In the Grand Central area alone, 80,000 people emerge from the concrete from 8 to 9 A.M.; 200,000 surface in the course of a day. Therefore Regional Plan goes underground. Its urban design principles begin with function, and function begins with circulation.

What it proposes is a generally applicable urban design principle called an "access tree." The roots, below grade, are the horizontal, underground layer of trains and subways, the trunk is the vertical circulation of elevators and escalators connected with and leading directly to the branches, which can be streets or office building corridors.

This under - and - above ground planning is shown as the basis of new nodes of clustered tower development, which would, in turn, give the city its proper physical form: the alternating drama of high and low groups of buildings, of light and shadowed places, of closed and open space.

The connection between transportation, circulation and new construction is as obviously necessary as it has been obviously neglected. Sixth Avenue is perhaps the most flagrant example of public dereliction and private disinterest—15 blocks of new skyscrapers built concurrently and consecutively south of the park with no circulatory connections. The buildings ignore each other, the subway lines underneath, and the adjoining example of Rockefeller Center, which some of them purport to extend and which set a precedent of successful multi-level planning more than 30 years ago.

The Regional Plan Association cares. The main thrust of its long-awaited report will be a strong plea for immediate and intensive concentration on urban design—or a dim future without it. But Slab City continues its inexorable march.

The Record April 1, 1968

Alternative To Burial Alive

The most encouraging single finding in the report on waste disposal published by the Regional Plan Association today is that we needn't drown in our orts and leavings in the next generation.

The consultants retained by the association conclude that waste material can be disposed of without undue cost or deterioration of land, streams, and air if the problem is attacked more systematically than it is now.

The scale of the inquiry was broad enough to illustrate the interrelationships between disposal systems. We have just discovered, for example, that if apartment house corporations in Manhattan are forbidden to use their inefficient incinerators, the janitors will put the trash on the curb to be collected and the overburdened Department of Sanitation won't be equal to the extra disposal challenge.

The report proposes more research to establish which options in waste disposal the Metropolitan Area has in fact.

Then again, some waste problems may be solved more efficiently by preventing the production of the waste than by hauling it away after it's been made.

Perhaps some wastes could be processed to be resold, as fertilizer or as the stuff of which cinder blocks are made. There are lots of possibilities. But none will come into being of itself. The Regional Plan Association summary is to the point:

An interrelated metropolitan waste removal system is needed. The system could be operated by many different agencies, but it should follow policies that conform to an areawide plan.

Newark Evening News
May 21, 1968

Unfair Burden

A Regional Plan Association report urges the federal government to assume all the costs of public services for the poor and to more than double the $11.5 billion it is now spending on such projects. Until this can be effected, the report proposes that the states take over, freeing some $5 billion in city revenues for the improvement of transportation, recreation and more municipal facilities and services.

That large cities are bearing an unfair burden is beyond dispute. Their problems have been largely created by the influx of millions of migrants, in search of jobs which do not exist or for which they require training to qualify. Many have been driven from rural areas by declining employment opportunities, attributable at least in part to federal agricultural policies, and, in Southern states especially, because help for the impoverished is at starvation levels. As a consequence of the resulting exhaustion of their resources, Northern cities are facing steady deterioration of their normal municipal services.

Besides easing this financial strain, federal assumption of what is undeniably a national responsibility would produce an equalization of welfare support among all states, relieving pressures to migrate.

If the war in Southeast Asia can be settled, money might no longer be an obstacle to federal acceptance of the whole welfare burden. But even then there would have to be a reassessment to determine which of the existing programs should be dropped and what better alternative measures should be adopted for dealing with poverty and its tragic consequences.