The Uses of Land in Cities

In cities all over the world land is used for specialized purposes such as housing and industry. One of the main problems of any city is how to control these uses to enable the city to function and evolve

by Charles Abrams

The current urbanization of life all over the world is bringing about a profound change in man's attitude toward land and living room. Up to a generation ago economists and political scientists speculating on the future of the human race were haunted by apprehensions about land shortage and land monopoly. These worries of the classical land economists, from Thomas Malthus to John Stuart Mill, were crystallized in Henry George's demand for a single tax on land to prevent the land monopolists and landlords from becoming the rulers of the earth. Today such notions seem little more than a reminder of a credulous past. In the present industrial economy intangible forms of property—money, stocks, credit—have replaced land as the symbols of wealth and power. Most important, the use of land itself is measured on a new scale.

On the urban scale of *Lebensraum* (say 50 persons, or approximately 12 families, per acre) West Germany alone could house the entire present population of the earth. At this same density the entire population of the U.S. could be accommodated on the West Coast, with nearly everyone having a view of the Pacific. About 70 percent of the U.S. population is now concentrated in urban and suburban communities occupying in total only a little more than 1 percent of the nation's land area, and the greatly increased population expected by the year 2000 will still take up only a little more than 2 percent of the land. In "right little, tight little" England 4 percent of the land is occupied by 40 percent of the people. Even in crowded Japan, which only recently fought a desperate war for space, half an hour's train ride from the center of Tokyo takes one into the open country of paddy fields.

For urban man there is no shortage of land. There are problems of effective use and organization of his space, but essentially the urban system can provide him with plenty of room for work, for sleep, for play and for a manifold range of activities. This is not to say that land for many of mankind's needs, such as producing food, has ceased to be a prime concern, or that urbanization has reduced the need for population control. What it does mean is that the shift from a predominantly rural world to a predominantly urban one is changing a situation of land hunger into one of land abundance. Man's old drive for outward expansion can now be redirected toward *intensive* expansion of the opportunities for work and living within the region where he lives. Thus the rise and growth of the modern city system may reduce a historic cause of war and conquest: the quest for living space.

The intensive development of the city —that is, the proper use of its land —is still an almost uncharted frontier. Urban land economics, it must be admitted, can hardly be called a true discipline as yet. There are few experts, and fewer theories, on the subject. There is, however, a body of established facts and observations with which to start.

The modern metropolis, as has been pointed out elsewhere in this issue, is limited to an area with a radius of about an hour's travel time from the center to the outskirts. Within that area, space must be provided for housing, offices, shops, factories, recreation, parks, government buildings, utilities, roads, bridges, parking spaces, railroads, airfields, schools, universities and cemeteries. (In England, which is more pressed for urban space than most countries, authorities are now urging families to cremate their dead to forestall the expansion of the cemeteries.) As a city grows, all these demands for space of course increase. Hans Blumenfeld observes, however, that an hour's travel radius takes in a great deal of territory [see "The Modern Metropolis," page 64]. The space problems of metropolises arise not from actual shortages of land but from lack of planning, waste of space, and from the unnecessary despoliation of good environments.

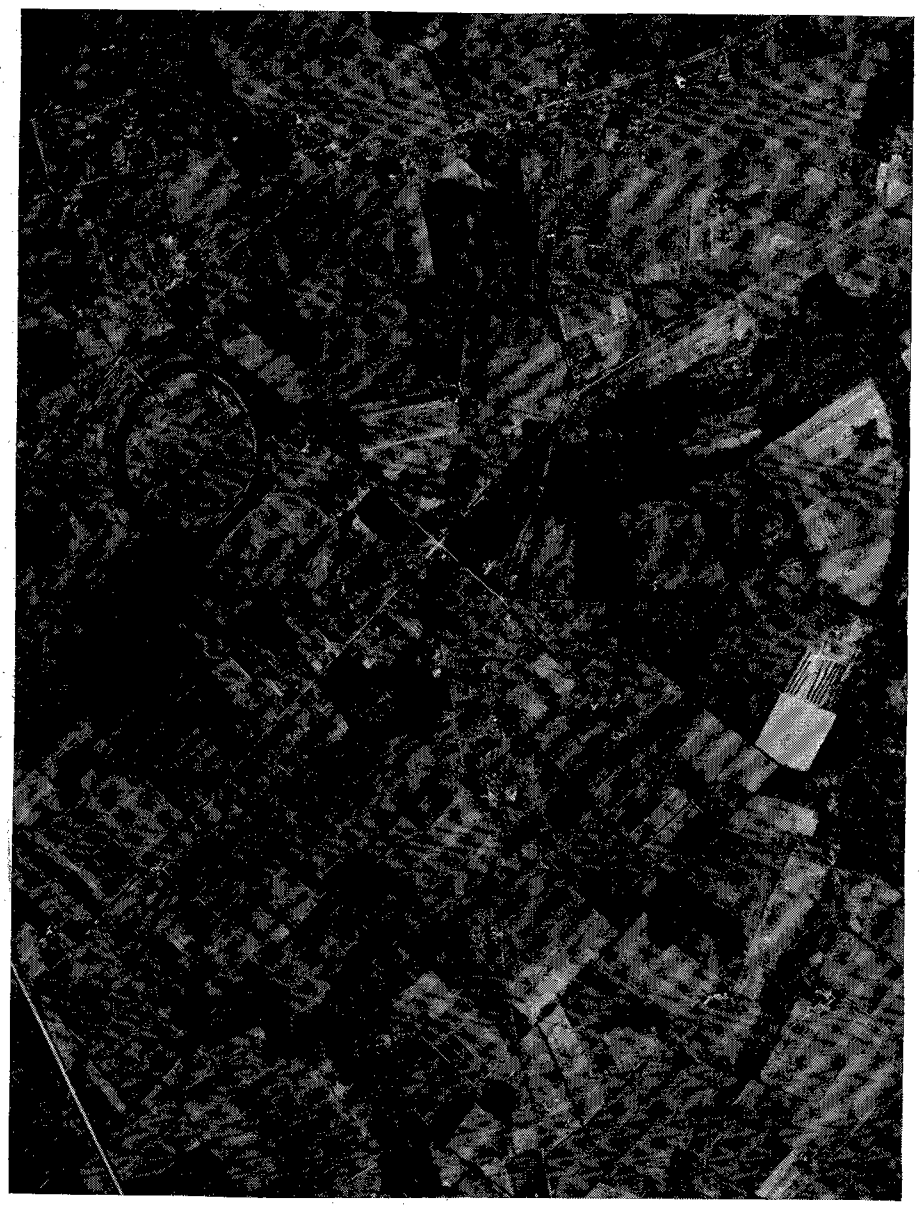
In California, for example, three million acres of the state's attractive landscape are currently being threatened by the steam shovel. In Santa Clara County alone one dairy farm a week has been lost to subdivisions. In England the "rape" of the countryside shocked aesthetic sensibilities and caused the government to impose drastic controls on the location of industries. What these various cases illustrate is that urbanized nations are faced with problems of land allotment and location of activities rather than with land shortage per se.

In the less developed countries the cities have a space problem of a dif-

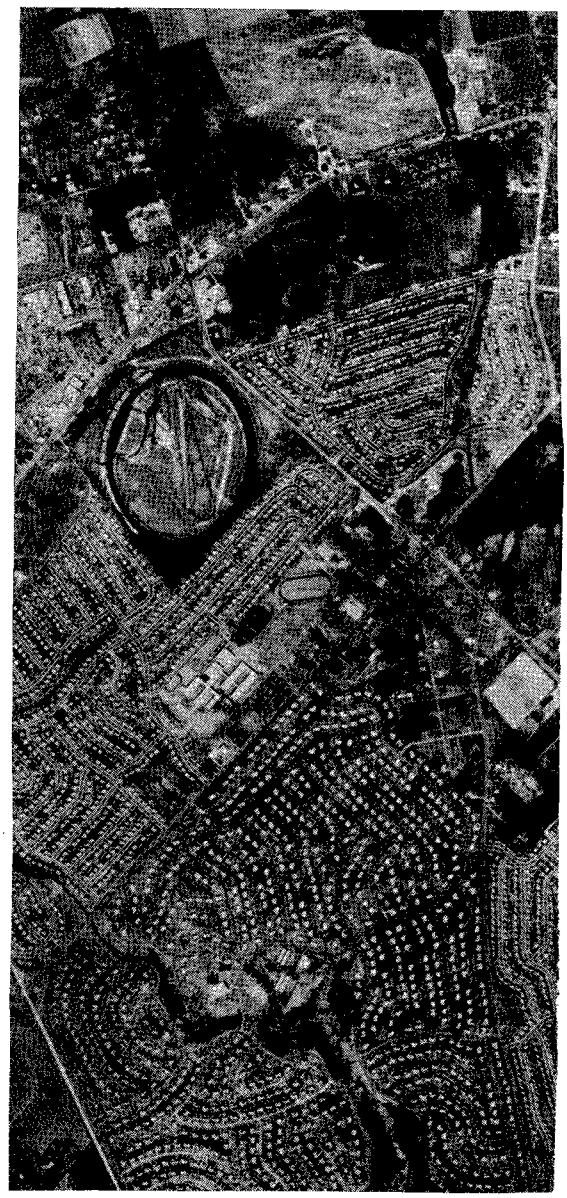
HONG KONG, part of which appears in the aerial photograph on the opposite page, combines features of land use encountered in cities of industrialized areas with features encountered in cities of underdeveloped areas. One such feature in underdeveloped areas is the preemption of land for residential purposes by squatters. On the hillsides at far left center and upper right are squatter shacks. The harbor at lower center is filled with hundreds of squatter sampans. The oblong buildings at upper right are nine-story walk-ups erected by the government to provide one-room apartments.

ferent kind: what to do with the people flooding in from the impoverished rural districts. Armies of squatters are taking over every vacant space, not only on the outskirts but even in the centers of towns, and putting up shacks of tin, wood or cardboard. In the metropolitan areas of Peru, for example, the number of squatters grew from 45,000 in 1940 to 958,000 by 1960. Metropolitan Manila in the Philippines had nearly 283,000 squatters in 1963, and their number is growing so rapidly that it is expected to reach 800,000 by 1980. In Davao squatters have settled down on a parkway running from the city hall to the retail center. In Caracas, the capital of Venezuela, more than 35 percent of the city's total population are squatters; in Maracaibo, 50 percent; in Santiago, Chile, 25 percent; in Ankara, Turkey, nearly 50 percent; in Istanbul, more than 20 percent. So it goes in cities on every continent. Most of the squatter camps have no services: no schools, no sewers, not even water, except what the squatters fetch in pails or oil drums or buy at high cost from peddlers. Garbage piles up around the shacks. The settlements are fire and health hazards, but the city governments are almost helpless to enforce controls or do much to improve their condition.

Compounding the squatter problem in cities of the underdeveloped countries is the problem of land speculation and high land prices. In the metropolises of advanced countries land prices are kept under some control by taxation and modern transport systems that make a wide area accessible. In the U.S., for instance, the land cost (without utilities) represents no more than about a quarter of the total cost of a multiple dwelling in the central area and no more than 10 percent of the cost of a house in the suburbs. In the less developed countries, on the other hand, the land price often amounts to 60 percent of the combined cost of house and lot. Frequently the owners of strategically placed land will not sell it at all, holding it for future sale at swollen prices when the demand soars. Moreover, high land cost is not the only obstacle to home building and ownership in these countries. With the annual family income often less than $100 a year, land at any price is beyond the family's means. The



BEFORE LEVITT & SONS ARRIVED the region shown in this aerial photograph was Pennsylvania farmland. Land use had changed little in two centuries. The only distinctly modern feature is the oval track of the Langhorne raceway, one mile in circumference.



AFTER LEVITT ARRIVED in 1952 the land was put to new use. Between 1952 and 1958 more than 17,000 homes, most of them

would-be home builder cannot raise money by a mortgage because there is no mortgage system, and to obtain a personal loan he must pay as much as 100 percent per annum in interest. In some countries it is impossible to get a clear title to a site because there is no land-registration system. In Ghana, for example, there is continual litigation over clouded titles on former tribal lands.

To convert chaos into order, to make cities workable, to bar bad development and encourage the building of necessary facilities, governments must establish control over the use of land. This is easier said than done. In the days of absolute rulers the procedure was simplicity itself. The king or patriarch merely ordered what he wanted done, whether it was widening a road to make room for his carriage, erecting a castle or building a beautiful city. There was no legal resistance. When, for example, the people of Dublin stubbornly refused to leave their houses on streets that Charles II of England had ordered widened, the king got his way by directing his commissioners to carry off the roofs of the houses. Today governments almost everywhere must reckon with the institution of private ownership of land. Even where the land is publicly owned its use is conditioned by the pressures of the market and public opinion. The control of land use is a formidable problem that no city in the world has yet solved to its complete satisfaction.

Three tools are available for shaping the pattern of land use in cities: regulation, taxation and public acquisition of the land. Let us consider them in turn.

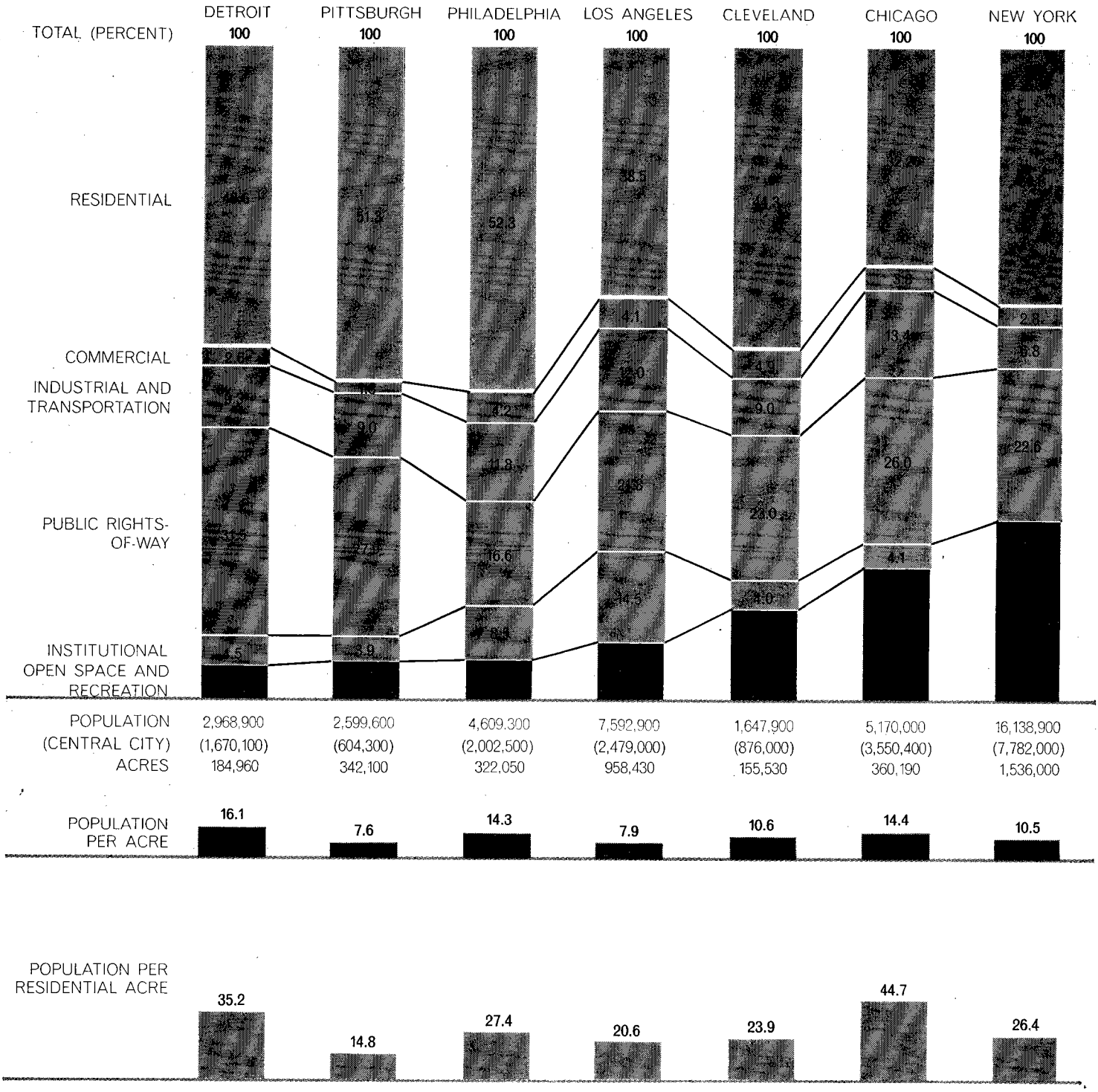
Regulation of the use of land is not a new thing; there were restrictions imposed even in the cities of ancient Babylonia. But the gradual libertarian revolt against the autocracy of rulers generally led to the fixed principle that a man's dwelling, however mean, was his inviolable castle. As William Pitt the Younger declaimed in the 18th century, although storms and rains might enter one's property, "the King of England cannot enter; all his forces dare not cross the threshold of the ruined tenement."

The industrial age eventually forced governments to intervene for the sake of health and safety and establish some

priced below $15,000, were built in the new community called Levittown, Pa. Only about two-thirds of the eight-square-mile development appears in this photograph. If Levittown were a political entity, which it is not, its present population of more than 65,000 would make it the 11th largest city in the state. One of two large shopping centers is just visible in the lower right corner.

control over housing and other city conditions. From that beginning, regulation was expanded until it now includes strict building codes, zoning specifications for land use and even rent controls. Regulation has not, however, proved to be a master key to solution of the problems of improving the urban environment. Although regulations on new buildings restrict objectionable development, they also raise costs and thus put new housing beyond the reach of low-income families. Moreover, in all too many metropolitan communities the zoning power has been used not to ameliorate housing conditions but to exclude the poor from the more attractive living areas.

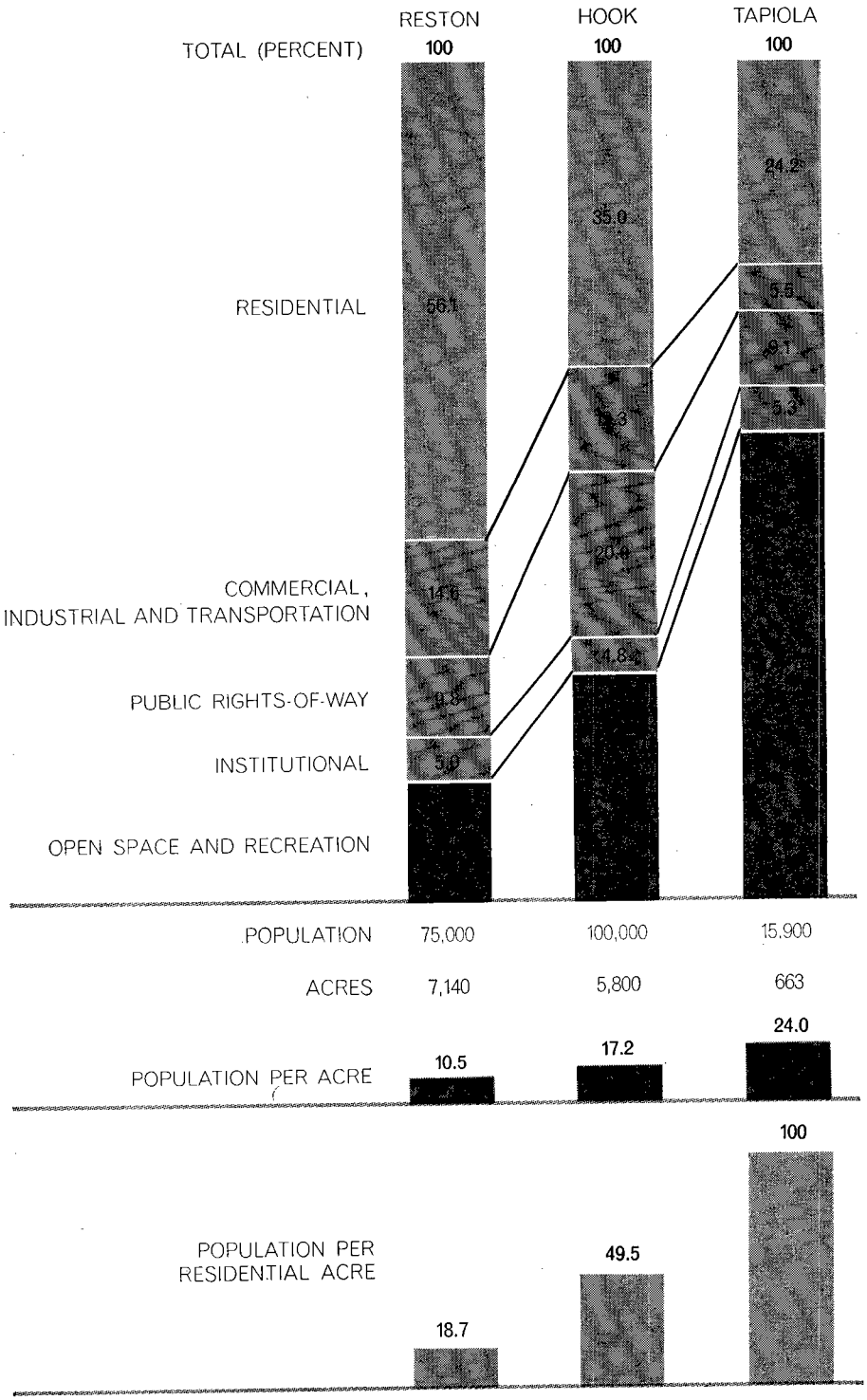
In the less developed countries regulation is virtually a flat failure as a policy. Often they are unable to enforce restrictions simply because they lack enforcement machinery. In Turkey builders ignored a building code because there were no civil servants who could read their blueprints. In La Paz, the capital of Bolivia, rent-control laws not only are held in contempt by landlords



LAND USE IN METROPOLITAN REGIONS shows a wide range of variation. The seven regions are arranged so that percentage of open space increases from left to right. Even though the figure for New York includes land devoted to institutional use, the combined figure is higher than the combined figure that can be obtained for any other region. This suggests that New York indeed has more open space than other regions. The population figures shown in color include surrounding regions in addition to the central city. The population of the central city appears in parentheses. Populations shown are for 1960 except for Chicago (1956) and Detroit (1953). Note the range in population densities. The data for this illustration were assembled by the Regional Plan Association.

but also terrorize tenants, who fear their landlords might be tempted by the provision that an apartment be decontrolled when its occupant dies! In any case, the underdeveloped countries, the great need of which is to encourage investment in building, are generally unwilling to adopt restrictive regulations that may discourage it.

The taxation of land is a more effective method of controlling its use than regulation is. It can be a potent and versatile instrument for desirable development of urban real estate. Pakistan, for example, has adopted a law (on the advice of a United Nations mission) that imposes penalty taxes on land if it is not built on within a specified period. A few other countries have resorted to the same policy. It is a useful, but far from a common, device for preventing the holding of land for speculative profits; indeed, three centuries ago the colony of New Amsterdam in New York used it to squelch land speculation within the stockade. Furthermore, the taxation of undeveloped land helps governments to finance roads and utilities and to recover some of the rise in land values that accompanies such improvements.



LAND USE IN NEW TOWNS shows how planners in different countries approach the problem. Reston is a new community in Virginia, 18 miles from Washington, D.C., which has attracted much comment among American planners. Tapiola, a new Finnish town, embodies the ideas of Scandinavian planners. Hook, a new town that lies between London and Southampton, will have a higher population density than any of the other new towns built in Britain since World War II. The populations of Hook and Reston are projections.

Unfortunately taxation policies, even in the advanced nations, are too confused and fragmented to allow general use of the real estate tax as a social tool. Some countries, particularly former colonies that have recently become independent, do not tax land at all. Others tax it so heavily that home owners are overburdened and investment in land is discouraged. Boston has a real estate tax that amounts to paying 11 percent of the estimated value of the land each year—surely a confiscatory tax. Singapore levies a tax amounting to 36 percent of the gross rent from real property; the result is that the city has no rental dwellings. In all countries, especially in their cities, the use of the taxing power still remains a crude instrument that often serves to retard the city rather than advance it. The development of a proper tax system for our increasingly urbanized society is obviously a major problem that calls for immediate and massive study.

Disillusioned about what can be accomplished by regulation or by taxation, most countries have decided that they must take a direct hand in their own construction or reconstruction. They now acquire land not only for roads, parks, government buildings and the other purposes traditionally recognized as public works but also for industry, commerce, housing, parking and a host of purposes long considered as being in the private domain. In doing so they have adopted a policy (as in urban renewal programs) that a generation ago would have been considered an unthinkable violation of private rights: taking property away from one individual in order to sell it to another [see "The Renewal of Cities," by Nathan Glazer, page 194]. The policy is now accepted as unavoidable if cities are not to fall into unbearable decay. Indeed, it can be justified ethically, because we now live in a world in which land and money are more freely exchangeable. Moreover, of the three forms of land control to which the city may resort—

regulation, taxation or purchase—purchase of the property is the only one that compensates the private owner for his deprivation.

The specific objective that launched this sharp innovation in policy was "slum clearance." By painful experience the U.S. and other countries have now learned that there is no magic or easy formula for replacing slums with something better. In the U.S. "clearance" has left many families without housing at the rent they can afford to pay (or in worse housing than they had before). In Lagos, the capital of Nigeria, the story has been more dismal. Soon after the country gained its independence in 1960 the minister of affairs for the capital decided to eliminate the city's slums to improve the nation's image in the eyes of the world. Instead of beginning with the building of a sewer system, as the World Bank had recommended, Lagos on the advice of its foreign consultants set out to demolish a 70-acre slum area. It took 200 helmeted policemen to protect the project against the protests of the displaced residents. By the time the Nigerian government had cleared and rebuilt a third of the land, it had run out of funds and had to stop. The city was left with a few dramatic skyscrapers—but no sewer. Lagos is still drenched with sewage: 85 percent of its schoolchildren have hookworm or roundworm and more than 10 percent of all the deaths in the city are attributed to dysentery or diarrhea.

Slum clearance is still a popular policy in many countries, but a few planners are coming to believe that in the poorer countries "planned slums," if provided with decent sanitary facilities and other minimal necessities, are pref-

PREEMPTION OF LAND BY SQUATTERS is vividly apparent in this view of part of Casablanca, the largest city of Morocco. In the foreground is a planned array of new buildings. Beyond them is a large area covered with tiny, sheet-iron-roofed squatter shacks.