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URBANIZATION AND THE DEVELOPMENT

OF THE INDUSTRIAL AREAS

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OF PRE-INDUSTRIAL AREAS

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The process of urbanization, known to be intimately associated with economic development, deserves close attention if we are to understand the recent and future mechanisms of change in pre-industrial areas. Yet up to the present our comparative knowledge of cities and of urbanization is slight, particularly for underdeveloped areas. Considerable interest was shown in the subject toward the end of the last century -- in the works of Levasseur, Meuriot, and Adna Weber -- but since then, except for isolated cases such as Pirenne and Mark Jefferson, there has been little work done in the comparative analysis of cities and urbanization.

This does not mean that there has been no interest in cities. On the contrary, the literature on cities and city problems is enormous. But most of this material deals with a particular town or at most with a single province or country. Conspicuously absent are systematic comparative analyses putting together and interpreting data on the cities of different countries and different cultures.

Indeed, the study of cities and of urbanization has been heavily confined to countries of European culture. As a result many of our generalizations about urban phenomena, though treated as if they were universal, are actually limited to Western (and often to American or West European) experience and are wrong when applied to most of the rest of the world. In other words, there is as yet no general science of cities. Without such a general science, one cannot get far in analyzing and documenting the interrelations between urbanization and economic development.

The claim may be made that a comparative science of urban phenomena is impossible because the data are lacking for most of the world. But this view is hardly justified. In the first place, if we always waited for perfect information before attempting to build a comparative social science we would wait forever. In the second

place, the data on cities are more numerous, more accurate, and more accessible than most people who have not looked into the matter seem to believe. The fact that the statistical materials are often lacking or inaccurate in a given country or for a given time, is not a signal for defeat. It is rather a challenge to ingenuity to make the best use of what is available and to supplement this with systematic estimates wherever necessary. In the program of urban studies at Columbia University a modest effort, known as the World Urban Resources Index, is being made to gather and systematize basic data on all large cities. Since material from this project is utilized to some extent in what follows, the Index is described briefly in the Appendix; but the body of the paper draws upon a wider context of comparative work in so far as it bears on the relation of urbanization to economic development in preindustrial areas.

Urbanization Versus the Presence of Cities. At the outset a distinction must be made between urbanization and the mere presence of cities. Urbanization as the term is used here refers to a ratio the urban people divided by the total population. It is therefore as much a function of the rural as of the urban population, the formula being as follows: $u = \frac{P_c}{P_t}$

where "u" is urbanization, "P_c" is city population, and "P_t" is total population.

Obviously the degree of urbanization in a given country or region can vary independently of the absolute number of people living in cities. India has more people in cities than the Netherlands, but it is far less urbanized than the latter. In other words, by transposing in the preceding equation, we find

$$P_c = uP_t$$

Since the two values "u" "Pc" can vary independently, they have to be kept separate in any comparative analysis. Also, the sheer number of cities in a given country may be as much a function of total population as of degree of urbanization. The distribution of urbanization over the globe, in short, is not equivalent to either the distribution of cities ~~or the distribution of cities~~ or the distribution of urban inhabitants. (1)

With respect to urbanization, there can be no doubt that the underdeveloped areas of the world have less of it than the advanced areas. If we take as underdeveloped, or pre-industrial, all areas with more than 50 per cent of their occupied males engaged in

(1) To forestall needless debate, a word should be said about the rural-urban dichotomy. The lack of a standard dividing point between "rural" and "urban" has often been regarded as a serious if not overwhelming handicap to international comparisons of urbanization. Yet such a conclusion is unwarranted. The similarity of definition is greater than the citation of extreme examples usually suggests (see the Demographic Yearbook for 1952, pp. 9-12). Also, a detailed study of comparative urbanization would not in any case be satisfied with a simple urban-rural dichotomy, since a continuum is clearly involved. In the past too much emphasis has been placed on the dichotomy. The assumption has been that there are two mutually exclusive but internally homogeneous categories, and that all we need to do is count the number of people falling into each of them. But almost anyone will admit that a man living in a city of several million is, at least demographically, more urban than one living in a town of 10,000.

The better principle is to think in terms of an index of urbanization. One can use as an index the proportion of people in places of 10,000 and over, 20,000 and over, or any other figure one wishes. Actually, since there is a certain regularity about the pyramid of cities by size, the proportion in any major size-class tends to bear a systematic relation to the proportion in other size-classes. Thus the percentage of a population living in cities above 100,000 has a ratio to the percentage in places above 5,000 which is roughly similar from one country to another. An index of urbanization is therefore quite feasible for comparative purposes.

agriculture, (2) we find that only 9 per cent of their combined population lives in cities of 100,000 or over, whereas for the other countries (industrial) the proportion is 27 per cent. Table 1 gives the indices of urbanization for the world's countries and territories classified by degree of agriculturalism. It can be seen that the degree of urbanization increases sharply as industrialism increases.

Table 1 --Degree of Urbanization in World's Countries and Territories Classified by Degree of Agriculturalism

Per Cent of Gainfully Occupied Males in Agriculture	Number of Countries	Per Cent of Population in Cities 100,000-plus
0-19	11	32.3
20-29	11	23.6
30-39	7	23.2
40-49	7	21.9
50-59	16	17.7
60-69	17	8.9
70-plus	86	6.3

It follows that those parts of the world still mainly in the peasant-agrarian stage of economic development manifest the least urbanization. A continental breakdown, as given in Table 2, shows that Asia (excluding the USSR) and Africa are the most agrarian and the least urbanized continents.

These results are of course what one would expect, but it is worth having figures to show the precise extent of the association

(2) This index of economic development seems to be both convenient and reliable. In the Population Division of the Bureau of Applied Social Research at Columbia University the index has been computed or estimated for all the countries and colonies of the world. These figures are used throughout the present paper in designating countries as "industrial" or "pre-industrial."

between economic development and urbanization and degree of urbanization, as measured by our indices, was .86, taking the countries and territories of the world as our units.

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It is plain, then, that urbanization is unequally distributed in the world. The achievement of high levels of urbanization anywhere in the world had to wait for the industrial revolution. This remarkable transformation had its rise in one part of the world, western Europe, and thence spread to other parts as industrialism spread. With the exception of Japan, the centers of urbanization today are the places where industrialization has gone hand in hand with the expansion of European civilization. In many instances, the spread of this kind of civilization has embraced "new" areas of vast extent and sparse native populations, such as North and South America and Australia. The urbanism of Europe was directly transplanted to these new areas, so that they became highly urbanized without acquiring overall dense populations. They were not hampered by the necessity of a slow evolution from densely settled peasant-agrarianism to modern industrialism. Thus we find that some of the most urbanized regions of the world are among the most sparsely settled, whereas some of the least urbanized are among the most densely settled.

Table 2 --Per Cent of Population in Cities and in

Continent	Agriculture in Major World Areas, Ca. 1950	
	Per Cent of Economically Active Males Engaged in Agriculture	Per Cent of Population in Cities 100,000-plus
WORLD	60	13
North America	17	29
Oceania	35	41
Europe	38	21
USSR	54	18
South America	62	18
Central America and Carribean	69	12
Asia	70	8
Africa	78	6

The Share of Cities and People in Underdeveloped Areas. The concentration of urbanization in industrial areas should not lead us to believe that most of the cities and most of the city people are found in these areas, as is commonly thought. The truth is that three-fourths of the world's population lives in pre-industrial countries. Although these countries are mainly rural, they are all urbanized to some degree because of the commercial impact of the industrial nations. Consequently, we find that the underdeveloped countries contain as many cities as do the industrial countries, as Table 3 shows. The countries having more than half of their occupied males in agriculture, forestry and fishing (the underdeveloped nations) contain 463 large cities. From the last column of Table 3 it can be seen that the underdeveloped countries have more people (160 million) living in cities of 100,000 or more than do the industrialized nations (155 million).

The same general finding can be shown in another way. If, instead of grouping countries according to their degree of agriculturalism, we group them according to their degree of urbanization, it turns out that the more rural countries have as many large cities and as many dwellers in large cities as the more urbanized ones.

Table 3 --Distribution of World's Large Cities and City Population
by Degree of Agriculturalism of Countries

Per Cent of Active Males in Agriculture	Number of Countries	Number of Cities	Per Cent of All Cities	Population in Cities (000's)	Per Cent of Total City Population
0-29	22	286	31.9	101,438	32.2
30-49	14	148	16.5	53,721	17.1
50-69	33	287	32.0	97,429	30.9
70-plus	86	176	19.6	62,478	19.8
Total	155	897	100.0	315,067	100.0

It becomes clear that the science of cities must concern itself just as much with underdeveloped countries as with advanced countries. Too much of the past study and interpretation of cities has ignored this simple fact. Deductions concerning "the city" have been made principally on the basis of American and European cases, embracing at best less than half of the universe being discussed.

Urbanization and Agricultural Density. The point has already been made that no relation exists between degree of urbanization and average density of population. Some of the underdeveloped and hence least urbanized countries are among the most densely settled, and some of the most highly developed are among the most sparsely settled; and vice versa. There is, however, a relationship -- a negative one -- between urbanization and what we call agricultural density (the number of males occupied with agriculture, hunting and forestry per square mile of cultivated land), as exhibited in Table 4. Although this negative relationship seems to affront common sense (for we might think that cities demand more agricultural

Table 4 --Agricultural Density According to Degree of Urbanism

Per Cent of Population in Cities 100,000-plus	Agricultural Males per Square Mile of Agricultural Land *
0- 9.9	136
10-19.9	72
20-29.9	67
30-plus	13

*Agricultural males are arbitrarily defined as those gainfully occupied in forming, hunting, fishing, and forestry. Agricultural land is defined as including land under crops, lying fallow, and in orchards. In a few cases the proportion of fishermen or herdsmen is so large as to make the ratio meaningless. In such cases adjustments have been made to approximate the actual manland ratio in agriculture. One reason for lumping farmers and fishermen, etc., is that the figures are so often grouped that way in census.

products and hence require a dense population in rural areas), the reason for it is apparent upon reflection. (3) As economic development and hence urbanization occur, agriculture tends to become more efficient. Capital equipment, science, and better organization replace manpower. Less labor is required per unit of land to produce the same or even a higher agricultural output. The growing cities, in addition to furnishing a market for commercial crops and supplying manufactured goods and services for improving the per-man productivity of agriculture, absorb people from the countryside. As a consequence, the farming population may diminish not only as a proportion of the total population but also in absolute terms (as it has done in the United States and several other industrial countries in recent decades).

The oft-condemned "depopulation" of rural areas is therefore a sign of economic modernization, the growth of cities, a boon to progress. This statement is not only true of densely settled agrarian countries such as those of southeast Asia but also true of sparsely settled ones such as those of central and east Africa. The latter, despite a low overall density, have a high ratio of people to land under cultivation. Their main advantage often lies in the fact that an increase in the land under cultivation is possible on a big scale, so that rural-urban migration does not have to absorb the entire surplus population released by the modernization of agriculture.

The Growth of Urbanization in Underdeveloped Areas. The facts of the current situation --the positive correlation between urbanization and industrialization and the negative association between urbanization and agricultural density -- suggest what one might expect to

(3) See Kingsley Davis, "Population and the Further Spread of Industrial Society," Proceedings of the American Philosophical Society, XCV (Feb. 1951), 10-13.

find historically. The present concentration of urbanization (as distinct from cities) in the advanced nations is almost wholly a product of the last 150 years. In 1800 the population in large cities was distributed over the earth in much the same fashion as the general population. With the rise and spread of industrialism in the nineteenth century, the European peoples, as we noted, rapidly and markedly increased their degree of urbanization. The hiatus between the advanced and nonadvanced parts of the world, however, is but a temporary phenomenon -- a lag due to the time required for the geographical and crosscultural spread of a radically new type of economic and social organization. As the great transformation has been completed in the most advanced countries, as these countries have achieved a high degree of urbanization, the rate of growth of their cities has begun to slacken. Indeed, this has noticeably happened in the twentieth century in countries such as Britain, Switzerland, the Netherlands, and the United States (see Figures 1 and 2). It is bound to happen, because as the proportion of the population living in cities becomes greater and greater, the chance of maintaining the rate of increase in that proportion becomes less and less. Furthermore, we know that the growth of cities has been mainly a result of rural-urban migration, which has contributed at times far more to urban numbers than the natural increase in cities could ever contribute. As the rural proportion declines to a small fraction of the total population, the cities have an ever smaller pool of people to draw on for the maintenance of growth rates.

The charts show the steady decline in the rate of urbanization in the most advanced countries in recent decades. But at the same time that this has been happening in industrial areas, the rate of urbanization has been increasing in most underdeveloped regions, as the charts also show. There is thus going on today a balancing of accounts, an incipient evening out of urbanization throughout the world. As a result the next fifty or one hundred years may find the

city population once again distributed roughly in proportion to the world's total population. If so, it will mark the end of a gigantic cycle -- the urbanization of the world.

The rapidity of urbanization in most of the pre-industrial areas is surprising. Only in such out-of-the-way places as Saudi Arabia, Yemen, and some African territories has urban expansion failed to make much headway, and these countries are few in number and small in total population. As a group, the underdeveloped countries, with 7 per cent of their people in 100,000-plus cities and 11 per cent in 20,000-plus cities in 1950, have moved some distance toward a high degree of urbanization. The general picture is therefore one of fast urbanization, comparable to that experienced at earlier periods in the now industrialized nations. Since the more recently industrialized countries have tended to urbanize faster once they started than the older countries did, there is reason to believe that the future pace of the currently underdeveloped regions may be fast indeed. Should these regions achieve the rapid rate of urbanization experienced either by Germany or Japan, they will as a group become highly urbanized (with more than 15 per cent of their population in large cities) within the next fifty years.

The pace of urbanization in the backward areas shows that they are anything but static. Sometimes, when one looks at the myriad difficulties and inefficiencies in the pre-industrial countries, when it appears that immemorial customs still prevail and that there is a vicious circle of poverty breeding poverty, one is tempted to think that these societies are static. But the data on trends of city growth and urbanization show them to possess highly dynamic attributes. Since urbanization is not an isolated culture trait but is a function of the total economy, its rapid growth indicates that fundamental changes are occurring at a rate sufficient to transform these pre-industrial societies within a few decades.

These generalizations concerning the underdeveloped countries as a whole seem well worth pondering. They can be documented by statistical analysis of a comparative kind. At the same time, anyone will recognize that the pre-industrial countries are not all alike. Some are more urbanized than others. Some differ in demography, economy, and society from others. It therefore becomes instructive to consider particular countries which represent types of cases -- types that may recur in various underdeveloped countries but are not found everywhere within the pre-industrial category. Accordingly, we have picked out a few countries for particular analysis.

In this attempt to analyze briefly some particular case, two things should be borne in mind. First, as one would expect, our statistics for underdeveloped areas are not as good as those for other areas. They are, however, as good as those we have for industrial nations when they were at a comparable stage of development. As we move back in time the data become poorer, so that long historical series on the underdeveloped countries are quite scarce and our selection of illustrative countries is narrowed. Second, from a scientific point of view little can be learned from a particular case without the benefit of comparative analysis. When a nation is described as a "type" with reference to urbanization it can be so described only in terms of its similarities and contrasts to other countries. Our case analyses are therefore undertaken with comparative statistical analysis in the background, as will become evident.

The particular areas selected for brief presentation below are India, an old agrarian country with a moderate rate of urbanization; Egypt, an overurbanized and disorganized agrarian country; and central and west Africa, a region of revolutionary new urbanization. The study of these regions in comparative terms raises some fundamental questions about the dynamics of urbanization.

The Case of India. (4) Since pre-industrial countries are not all "underdeveloped" to the same degree, one of the first questions to be asked about any one of them is how its situation compares with that of other countries. India, with respect to our index of industrialization, stands at about the midpoint of the array. Fifty-one per cent of the rest of the world's population lives in countries more industrialized than India and 49 per cent in countries less industrialized. When each country is treated as a unit regardless of population, only 43 per cent of the countries and colonies of the world are more industrialized than India. With 68.9 per cent of her male population dependent on agriculture in 1951, India is definitely in the underdeveloped category, but she is somewhat more advanced than the average country in that category.

But now an interesting question arises. Modernization has different aspects, and if indices can be found which approximately measure these aspects, we can find in what ways a country is more developed and in what ways less developed than its general position would indicate. In other words, in addition to comparing different countries with reference to a particular index, we can compare several indices within the same country. By way of illustration, Table 5 shows that India seems far behind on literacy and considerably behind on per capita income and the reduction of agricultural density. She is best off in terms of occupational structure (our measure of industrialization) and in terms of urbanization. Thus we may say that there is some tendency for urbanization to run ahead of other aspects of development in India, but not noticeably except with respect to educational development.

esto supone que la urbanización es un índice importante de modernización. ¡Discutible! Considerar fuerzas de empuje y de atracción.

(4) This section on India is drawn from Kingsley Davis, "Social and Demographic Aspects of Economic Development in India," to be published soon as part of a symposium sponsored by the Social Science Research Council.

Without attempting here to explain the particular character of India's situation which these indices point up -- which is a significant problem in understanding economic change in pre-industrial countries -- let us say that even though urbanization tends to be slightly more advanced than her total economy and society would lead us to estimate, it is still modest in world terms. In 1951, the country had 6.8 per cent of its population in cities of 10,000 or more, as compared to 13.1 per cent for the world as a whole. India manifests less than half the urbanization found in Brazil (13.9 per cent of 100,000-plus cities in 1950) and only one-fourth that found in Chile (26.0 per cent in 1950).

Table 5 --India's Relative Position on Selected Indices (1)

	Per Cent of World's Population in Countries Ahead of India	Per Cent of Countries a- head of India
Non-agricultural employment*	51	43
Agricultural density+	57	69
Urbanization‡	59	51
Literacy§	92	68
Per capita income**	57	73

(1) Except for per capita national income, all data were compiled and processed by Division of Population Research, Bureau of Applied Social Research, Columbia University.

* Percentage of occupied males who are engaged in agriculture, 1947 or near that date.

+ Number of gainfully occupied males in agriculture per square mile or agricultural land (i.e., land under crops or lying fallow). Dates same as (*). A low agricultural density is taken as a sign of efficiency, and hence being ahead of India would mean having a lower agricultural density.

‡ Percentage of population living in places of 20,000 or more, 1950.

§ Percentage of population age 10 or over able to read. Dates same as in (*).

** Not based on world as a whole, but on 70 countries which include 90 per cent of the world's population. United States, National and Per Capita Incomes, Seventy Countries -- 1949.

The present percentage of India's population living in large cities is about the same as that of the United States in 1855. But urbanization is proceeding somewhat more slowly in India than in the United States at that time, and it went much more slowly in the early periods. From 1820 to 1860 in the United States the average gain per decade in the proportion living in large cities was 63 per cent. In India from 1891 to 1951 it was 22 per cent. In spite of the fact that progress can be faster the more recently it occurs, this is not providing true in India, at least so far as urbanization is concerned. This suggests that there have been dampers on India's development which did not operate in America in its early history. As a result of the unequal rates of development at similar stages of urbanization, India has fallen further behind than it was. Whereas in 1891 India was about 55 years behind the United States in this matter, by 1931 she was over 90 years behind. After 1931, however, India's rate of urbanization increased markedly, almost equalling the United States gain at similar levels. How long she will continue to do so is hard to say, and if she does, it may be a consequence of "overurbanization" such as seems to occur occasionally in other densely-people agrarian countries. This possibility is suggested by the apparently static character of India's occupational structure, for the proportion of occupied males in agriculture has shown virtually no sign of change for several decades.

Egypt: An Overurbanized Country. (5) That there is, on a world-wide basis a high correlation (.86) between urbanization and our index of economic development has already been mentioned. About one-fourth of the variation in urbanization from one country to

(5) This section is drawn heavily from Robert Parke, Jr., "Over-urbanization in Egypt," a paper read at the annual meeting of the Eastern Sociological Society, April 3, 1954. Mr. Parke's work on Egypt was developed in the context of the urban research program at Columbia University.

another, however, cannot be explained by variation in the degree of non-agriculturalism. If the relationship between the two variables is represented in the form of regression curve, certain countries are found to be off the line to a significant extent. One of these is Egypt, which has far more urbanization than its degree of economic development would lead us to expect. In this sense Egypt is "overurbanized," and since this is a condition found also in certain other underdeveloped areas (notably Greece and Korea, and probably Lebanon), and examination of the case offers some clues to the dynamics of urbanization in underdeveloped areas under certain conditions.

How far out of the line Egypt is can be seen from the following figures:

	Per Cent of Population in Cities	
	100,000-plus	20,000-plus
Switzerland, 1950	20.6	31.2
Egypt, 1947	19.3	28.5
Sweden, 1945	17.4	29.2
France, 1946	16.6	31.9

By no stretch of the imagination is Egypt as industrialized as the other three countries in the list, yet she is nearly as urbanized as Switzerland and is more urbanized on the 100,000+ levels than Sweden or France. Indeed, the urban proportion in the 1947 Egyptian census is so high that some suspicion attaches to the figure, (6) but even if a correction factor is introduced to

(6) Charles Issawi, a well expert on Egypt, says: "When broken down the census returns show an abnormal increase in Alexandria and even more in Cairo. It is probable that many inhabitants of these cities filled their forms wrongly in the hope of getting extra ration cards." "Population and Wealth in Egypt," Milbank Memorial Fund Quarterly, 27 (January 1949), 100. Issawi does not say, however, what he means by "abnormal." He gives no statistical analysis to demonstrate overenumeration.

compensate for overenumeration of the large city population, Egypt is far more urbanized than its industrial position would require. Furthermore, this condition is not of recent origin (i.e., not found in the 1947 census alone) but has characterized the country for at least forty years, as Table 6 shows. The overurbanization is therefore real, and it has increased with time.

In looking for an explanation of this situation, one has to take into account the fact that Egypt's cultivated rural area is, to an extraordinary degree, densely settled and impoverished. The density is a product of rapid population growth for a century and a half and the inability of the economy to expand its non-agricultural sector proportionately. (7) The poverty is due to the same factors, plus the familiar pattern of tenancy associated with large landholdings whose absentee owners live in the cities. As the result of the impoverishment of the rural masses and the absence from the countryside of those who utilize the agricultural surplus, a curious thing has happened: nearly everybody who is not actually farming the land has gotten out and gone to the cities. Mr. Parke, on the basis of the 1947 census, has estimated that only 10 per cent of the occupied males living in rural places--i.e., villages and towns of less than 5,000 -- are engaged in non-agricultural pursuits. From 1950 in Puerto Rico the figure is 23 per cent (except that rural is there defined as places of less than 2,5000, which makes the contrast sharper), and in France the figure is estimated at 50 per cent. One cannot avoid feeling that in Egypt the social and economic structure has so deprived the cultivator that he has little or nothing beyond bare subsistence. He cannot command much by way of services or handicraft products,

(7) Ibid., pp. 98-107. See also Clyde V. Kiser, "The Demographic Position of Egypt" in Milbank Memorial Fund, Demographic Studies of Selected Areas of Rapid Growth (New York: 1944).

Table 6 --Expected and Actual Urbanization in Egypt, 1907-1947 *

	Per Cent of Occupied Males in Non-Agricult- ural Activities	Per Cent of Population in Cities 100,000-plus	
		Expected +	Actual
1907	27	6.6	8.7
1917	30	7.9	9.7
1927	34	9.7	12.2
1937	31	8.4	13.3
1947	38	11.4	19.3 ‡

* The table was conceived and worked out by Robert Parke, Jr., in the unpublished paper cited in the text.

+ The expected figure is derived from the regression equation in which the proportion of non-agricultural male employment is the independent variable and the proportion in large cities is the dependent variable. The compilation of the necessary data and the derivation of the equation are mainly the work of Hilda Hertz.

‡ If a correction is made for overenumeration, the figure comes out to 17.6%.

and consequently the people who furnish such goods and services have gone to the cities. In the cities the nonagricultural producer can at least find the people -- landowners, government workers, and middle classes -- who drain the countryside of its surplus; and it is to them that he looks for support. The city therefore gathers to itself practically everybody who does not actually have to work the land to get a living.

Not only do productive nonagriculturalists come to the cities in Egypt, but also a great many unproductive people. Whereas the cities in industrial countries normally have a disproportionate share of people in the working ages, the Egyptian cities fail to exhibit this characteristic. They have, to an astonishing degree, the same age-sex structure as the total population. This is particularly strange since normally in an oriental city the sex ratio is heavily distorted in favor of males. Since in Muslim

culture women do not usually participate in nonagricultural economic activities, the normal city sex ratio in Egypt, along with an unusually high proportion of children, means that the inactive population in the cities is extremely high. The data indicate, according to Parke, that about 92 per cent of women aged 15 and over in Cairo and Alexandria are economically inactive.

Such facts show that the densely settled and impoverished countryside in Egypt is pushing people into the cities because they have no other alternative. When they get into the cities it is perhaps harder for the government to let them starve, and they run some chance of picking up some crumbs from the wealthy who inhabit only the cities. Issawi has presented evidence showing a sharp decline in the per capita consumption of staple items in Egypt from 1920 to 1937. (8) Much of the migration to the cities seems therefore to be a refugee migration from the countryside where increased population, diminished size of holdings, and absentee landlord exactions have gradually squeezed out families by the thousands.

These facts are sufficient to account for the overurbanization which we found to characterize Egypt. That they do so was found by certain calculations performed by Parke. He first assumed that the nonagriculturalists in Egypt were distributed between the urban and rural sectors in the same ratio as in Puerto Rico. The effect of this assumption was to reduce the population in large cities by 13 per cent. Hence, the concentration of non-agriculturalists and of the inactive population in cities would virtually account for the observed overurbanization in Egypt.

The Egyptian case gains significance by virtue of the fact that some other underdeveloped countries exhibit the same phenomenon. T. O. Wilkinson, working in the comparative urban re-

(8) Op. cit., pp. 106-7.

search program at Columbia University, has shown that in Korea after Japanese occupation in 1910, economic development lagged far behind urbanization. (9) Korean city growth "was more the result of the 'push' from a hard-pressed rural economy than of the 'pull' from expanding opportunities in urban areas." After the departure of the Japanese, this tendency was increased.

During the five-year post-World-War-II period covered in available South Korean census data, urbanization continued at a rapid rate, but even the limited economic base for city growth provided by Japanese activity had disappeared. That 17.2 per cent of South Korea's people in 1949 were in incorporated cities can be accounted for almost wholly by the fact that cities functioned as refuges for migrants from the poverty of rural regions and for thousands of repatriates returning to Korea following World War II. An agricultural density approaching 300 per square mile, in addition to the breakdowns of rural food-rationing systems, strengthened the tendency for cityward movement. The relief organizations and the employment related to interim military government were almost exclusive in cities. (10)

One's first tendency is to condemn such overurbanization as artificial and perhaps harmful to economic growth. One frequently hears the old plaint that people are being turned off the land and are drifting unhappily to the metropolis, and the temptation is to say that the process should be stopped. The use of the word "overurbanization" may connote such an evaluative interpretation. But the term as used here has only a statistical meaning, with no overtone of evaluation intended. From the standpoint of future economic growth, three considerations stand out. First, over-urbanization surely has its limits. It is possible for city growth to get ahead of general modernization, but not very far

(9) "The Pattern of Korean Urban Growth," Rural Sociology, XIX (March 1954), 32-38.

(10) Ibid., p. 35.

ahead for very long. If there is economic stagnation, urban growth itself must ultimately cease. In Egypt we can expect, then, that either the rate of urbanization will fall off sharply or industrialization will gain a new impetus. Second, overurbanization may have some effect in stimulating economic growth. Insofar as the city represents an efficient locale for nonagricultural production (as we believe it does), the accumulation of people in cities represents at least a potential setting for enhanced output. Also, in the process of modernizing agriculture, the more people who can be moved off the land, the better. Third, it is primarily in the cities that the leadership and the mobile following for revolutionary activities are to be found. Overurbanization, as we have analyzed it, is well calculated to provoke the maximum discontent in the population. Faced with idle, impoverished, and rootless urban masses, the government is forced to take drastic action or to allow itself to be displaced by a new revolutionary group. Since economic development is often hindered by outmoded institutional and political arrangements, the role of urbanization in fostering revolutionary activity (whether Communist or not) can be said to be potentially favorable to change. (11) It should be emphasized, however, that we are speaking of potentialities. Whether or not these potentialities are in fact realized depends on other factors in the situation. Urbanization, and particularly overurbanization, is only one of several major variables in industrial change, and so it is wise to avoid the appearance of determinism with reference to its role.

(11) It has been shown, for example, that Communist revolutions are largely implemented by the urban intellectual leadership and not by discontented peasants. The urban leadership is needed to mobilize and direct the revolutionary energy which peasant discontent supplies. See Morris Watnick, "The Appeal of Communism to the Peoples of Underdeveloped Areas," *Economic Development and Cultural Change*, I (March 1952), 23-36. This article was apparently reprinted in Bert F. Hoselitz (ed.) *The Progress of Underdeveloped Areas* (Chicago: University of Chicago Press, 1952), pp. 152-72.

Revolutionary New Urbanization in Africa. In cases such as India, Egypt, Korea and Greece, we are confronted with countries that have long experienced the phenomenon of cities and which have old and complex civilizations. In central and west Africa, on the other hand, we find ourselves in a totally different kind of underdeveloped region -- one in which primitive tribal life, completely rural in character, has been the dominant mode of existence until very recently. It is still a region of unlettered rurality, its people getting their subsistence mainly by hoe agriculture, by herding, or hunting and fishing.

Yet into this still heavily primitive region is now being thrust an extremely rapid and patently modern city development. The urbanization that is rapidly taking place is not the urbanization of the late medieval period in Europe, nor the urbanization of the 18th and 19th centuries; it is rather the urbanization of the 20th century. This sudden juxtaposition of 20th-century cities and extremely primitive cultures (virtually stone-age in their organization and technology) gives rise in some respects to a sharper rural-urban contrast than can be found anywhere else in the world. It is the contrast between neolithic cultures on the one hand and industrial culture on the other, not mitigated by intervening centuries of sociocultural evolution but juxtaposed and mixed all at once.

It follows that the flow of migrants from countryside to city in Africa corresponds to a rapid transition telescoping several millennia into a short span. The social disorganization to which it gives rise is probably greater than that ever before experienced by urban populations. The native coming to the city cannot immediately divest himself of his tribal customs and allegiances, his superstitions and taboos; yet these are fantastically inappropriate to a modern urban milieu. Nor can he acquire suddenly the knowledge and habitudes necessary to make city life reasonable

and workable. The result is a weird and chaotic mixture which gives to the average African city an unreal, tense, jangling quality.

Yet urbanization is probably going ahead faster in this region than anywhere else in the world. It has to be recalled that great parts of middle Africa were not "discovered" by Europeans until the latter half of the last century, and many parts have been opened to economic penetration only since World War I. As late as 1900, for example, the Katanga area of the Belgian Congo, an area now known to be fabulously rich in mineral deposits, was precariously held by a few isolated military posts which could barely deal with rebellious natives. The site of the present capital of this area, Elisabethville, was not chosen until 1910. By 1912 it already had 8,000 inhabitants; by 1948, over 100,000. Diversifying its industry, stimulating a surrounding modernized agricultural development, Elisabethville today is still growing fast. The growth of other cities has been similarly recent and in many instances even more spectacular. The capital of the Belgian Congo, Leopoldville, had a population of about 34,000 in 1930.

Twenty years later, in 1950, the number of its inhabitants had increased approximately seven times, rising to 211,000. The town was said in 1951 to cover an area equal to a quarter of that of Paris, with sixty miles of streets and roads. In a few more years its population should reach half a million. But the history of Leopoldville is by no means unique. As Table 7 shows, there are several other cities in Negro Africa which have had a comparable rate of growth. Some of them have quadrupled in population since World War II.

Table 7 --Population of Some Middle African Cities at Recent Dates*

City	Population (in 000's)		
	1930	1940	1950
Abidjan	22		142
Accra	70		136
Brazzaville		25	83
Dakar		165	209
Elisabethville			101
Kano	89		102
Lagos	126		230
Leopoldville	34		211
Luanda		67	159
Mombasa		57	85
Nairobi		65	119

* Data on these cities are derived from so many different sources that it seems too unwieldy to list them. Few are based on genuine censuses, exceptions being Accra and Lagos. The dates are often a year or two different from those listed in the caption.

The reasons for the rapid growth of cities in this great region are varied. Penetrated by modern economic enterprise only recently, the region has more virtually unexploited primary resources than any other major area of the world. The first notable spurt in the exploitation of these resources came in connection with the demands created by World War I. But the demand during and after World War II was even greater. Both agricultural products (palm oil, cocoa, coffee, pyrethrum, peanuts, cotton, sisal, rubber, hides, timber) and mineral products (tin, copper, gold, diamonds, bauxite, uranium) commanded high prices, so that it was worthwhile to expand their exploitation with modern scientific techniques at the most rapid pace possible. In addition, in connection with World War II, there was apparently a flight of private capital from the politically insecure countries of Europe to the potentially rich colonies of

Africa. Not only private but also public capital came. The African colonies had proved to have great strategic value for the free countries of the world, both in war and in the struggle for economic survival. Hence the metropolitan nations were anxious to invest public capital to develop and strengthen them. America was willing to help through Marshall Aid, Mutual Security, Point IV, and private investment. International agencies, such as the World Bank, also lent a hand. As a result of all these funds available for investment in primary resources-- resources capable of a rapidly expanding exploitation and fetching good prices on the world market -- the economy of Negro Africa moved ahead rapidly. The towns and cities of the region, most of them new, grew with fantastic speed because the invading economic enterprise depended on urban facilities which previously had not existed. The investment of huge capital funds, the organization of business enterprise, the strengthening of governmental control, the mobilization of trained personnel -- all were focused in the new urban headquarters. Vast new housing projects for Africans and for Europeans, for public and for private employees, were undertaken; large new administrative office buildings, hotels, stores, storage houses were erected; new utility plants, new light industries, improved harbors, and new amenities were installed. The visitor to these cities, at any time from 1945 and 1954, would see a rate of new construction eclipsing that of American boomtowns in their rosiest periods.

But the rapidity of urban growth today should not lead one to think of the region as highly urbanized. On the contrary, it was so profoundly rural only a short time ago that the recent growth of cities has not yet brought the percentage of urban population to a point of parity with even other underdeveloped areas. The present towns and cities are still urban islands in a sea of rurality.

Furthermore, even though the cities represent mainly an importation by Europeans, their populations are European to only a small extent, being overwhelmingly African. This preponderance of the African means that the cities are composed chiefly of people who only yesterday were living in primitive cultures and who, indeed, are still attached to those cultures. As a result, urbanization achieves in this region an extreme role as a stimulant of social change. The small European populations form the organizing and directing core. Under their stimulus the natives flock from the bush to the city. But they often do not stay. They generally return sooner or later to their tribal home, either for a visit or to stay permanently, being replaced by others while they are away. Thus the effect of the city is diffused outward through the primitive countryside, so that the whole texture of tribal life is being broken down.

What will be the result of this process of rapid and revolutionary urbanization in central and west Africa? On the whole the prospect for complete and early modernization would seem better than in India and Egypt, because the area possesses huge potential resources and a relatively sparse population. The rest of the world, crowded and hungry for industrial raw materials, needs these resources. Thus there is every indication that, barring a world catastrophe, the demand for Africa's primary products will increase and that the region will continue its fast pace of city building. The efficiencies created by wholesale importation of urban and industrial technology will probably provide an adequate economic base for a quick transition to modern conditions. Doubtless, as the tribal peoples recover from the initial shock of quick and massive contact with twenty-century culture, their natural increase will be great and population will grow for a while. But the urbanization process may be so rapid that, before overwhelmingly dense populations are built up, fertility will start declining again and

the natural increase will be lowered to manageable proportions. In other words, there is a chance for urbanization to acquire an early predominance as it has done in prosperous new areas such as Austria or Argentina rather than be bogged down in swamp of densely settled peasant-agriculturalism as in most of Asia.

Our brief analysis of African urbanization has been mainly confined to the middle and western part of the continent where the Europeans are mostly a small directing element, not permanently settled but still attached to their homelands. The case is somewhat different in the Portuguese and Spanish territories where European contact is older, where the cultural differences are less, and where urbanization has not been so recent or so rapid. The case is also different in east Africa where a local northwest European population has made its permanent home and is thus in competition with the native for land and for political advantage. But it still remains true that most of Negro Africa, the world's most rural region, is yielding rapidly to urbanization, and that in spite of (perhaps because of) the disorganization of this twentieth-century intrusion into Neolithic culture, the region stands a chance of shortcircuiting much of the painful evolution that the older partially urbanized civilizations will have to go through before they achieve an urban-industrial society with a commensurate level of living.

Conclusion: The Role of Cities in Economic Development. Behind much of our reasoning is the assumption that urbanization is not only an excellent index of economic development and social modernization but also itself a stimulus to such change. This assumption should not be taken for granted. It should be examined, and in comparative urban research we have an opportunity to do so. Space

does not permit a full treatment of the matter here, (12) but the line of reasoning may be briefly intimated as a fitting conclusion to this paper.

Basically, the city is an efficient mode of human settlement because, with great numbers concentrated in a small area, it minimizes one of the greatest obstacles to human production -- what Haig has called "the friction of space." This achievement is not possible without a high degree of urbanization (i.e., not possible in a predominantly agricultural or non-industrial economy) because by their very nature such activities as hunting and tillage require a large area in relation to number of workers. In non-agricultural production, however, land is not a factor in production but merely a site. Consequently, production can be concentrated in small space; and when this is done in a city, a great variety of goods and services can be supplied by numerous specialized producers whose mutual interdependence is facilitated by the possibility of ready and cheap transport and communication within the city. The city thus becomes, in essence, one great factory.

The gain in efficiency thus achieved, though enormous, is not without its limits. The main limitation is that the city is not self-contained. It must export and import to live. It must export either goods or services, or both, to its rural hinterland, and it must usually export to other cities as well. It therefore requires other means of overcoming friction of space than the sheer fact of close settlement within its own boundaries. This is why adequate transportation is indispensable to a high degree of urbanization. Insofar as the technology of rural-urban and interurban transport and communication is itself an urban product, the city becomes something of a self-generating system, for it is producing the means for ever greater urbanization. The steamboat, railroad, and air-

(12) An attempt to set forth a full theory of the role of cities in economic development will be found in the writers' book, *The Pattern of World Urbanization*, soon to be published.

plane, by facilitating long-distance transport, made it possible for individual cities to become larger and for a greater proportion of a country's population to live in them. Improved transport made it easier for rural people to migrate to the cities; and the cities, by removing excess rural manpower, by stimulating the demand for agricultural products, and by furnishing capital and new organizational principles and techniques for rural enterprise, contributed to the modernization of agriculture itself.

The efficiency of the city is not limited to the economic sphere. It also makes possible a greater accumulation of capital and personnel for purposes of formal education, public health, science, art, etc. Doubtless much is wasted on excrescences of religious superstition and frivolous fashion and display, but the possibility of specialization in different branches of knowledge, of the accumulation of libraries and the exchange of ideas, exists because of the character of the city.

The requirements of urban living force innovations which those in the countryside, if left to themselves, would never make. The fact of high density in small space gives rise to traffic and sanitary difficulties, to housing problems, to crime conditions, to organized special interests. All of these have to be dealt with in one way or another, and the innovations made sometimes give rise to new patterns of political and social control which can be diffused to the rural population. Furthermore, the competition for space and for special advantage within the urban milieu gives an advantage to individual innovation, to rationalistic calculation, and to individualism -- all of which tends to stimulate a faster pace of cultural change than is likely to be seen in a peasant setting.

All told, then, the city makes its own peculiar contribution to the process of economic development. It is no accident that

urbanization and industrialization have gone hand in hand. The appearance of rapid urbanization in underdeveloped areas is therefore both a sign of change already under way and an augury of future change. Its stimulating role is possibly more hampered in well-established agrarian civilizations such as those of India and Egypt and least hampered in primitive, but potentially rich, areas such as central and west Africa, but its effect in any case would seem to be substantial.

As yet only a small part of the world has become highly urbanized, but that small part is dominant over the rest and is diffusing its urban pattern widely. As the whole world begins to become highly urbanized, human society can be expected to become more dynamic than in the past. The process of urbanization itself must come to an end when nearly all people live in urban aggregations, but the forms of life and the ecological patterns within these aggregates will doubtless continue to change and the innovating force of urbanism will continue to modify culture and society.