URBANIZATION   IN   OLD   AND   NEW   COUNTRIES

Volume I: Proceedings of a series of Lectures

GERALD   BREESE

Institute for Social Research

University of Natal, Durban, 1964.

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Proceedings of a series of Lectures and
Seminars held in the University of Natal
in August/September, 1963,
on the occasion of a visit by

GERALD   BREESE

Director, Bureau of Urban Research
and Professor of Sociology,
Princeton University.

V O L U M E   I
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FOREWORD

This represents one of two separate publications containing the essence of a series of lectures and seminars held in the University of Natal in August, 1963, on the occasion of a visit to the University by Dr. Gerald Breese, Professor of Sociology and Director of the Bureau of Urban Research at Princeton University.

Our first contact with Professor Breese was made by Professor Paul H. Connell, Head of the Department of Architecture, when visiting the United States in 1956; it was on his suggestion that the Students' Visiting Lecturers Trust Fund of the University of Natal invited Professor Breese to spend six weeks in South Africa, and to lead the discussions on problems of urbanization which form the substance of this publication.

The four lectures prepared by Professor Breese touch on important aspects of the modern city; in the first place he discusses the city as a way of life and the phenomena of suburbia; in the second place he deals with specific problems of cities in the economically underdeveloped countries, first in general terms and then in relation to data requirements for the comprehensive planning of such cities. No attempt is made to set out a systematic presentation of theory relating to urbanization, but the points emphasized in the lectures touch on some of the most crucial problems and significant trends encountered in contemporary cities in many parts of the world.

The material of the lectures is amplified and developed in the seminars, which were interdisciplinary in character, the participants being from the different departments of study concerned with the subject - in particular the departments of Sociology, Economics, Commerce, Urban Geography, City Government, African Studies, Town Planning and Architecture, and the Institute for Social Research. The Provincial and local authorities were represented and participated freely in the discussions; members of the public attended the seminars by invitation and the lectures were announced as public lectures.

The chief value in the series, apart from the intrinsic interest of the subject, lies in the stimulus it gave to interdisciplinary discussion and research. In an age of specialization there is far too little opportunity, especially in the universities, for experience of this type of teamwork; yet it is only by the employment of such methods that the complex problems of the modern world can be solved. If the experience of this particular series of studies is any guide, the vital and creative effect of bringing the relevant disciplines together in a mutual study of a common problem augers well for the future employment of the method for the solution of actual problems in the context of practical affairs. It is the hope of the organizers that the University of Natal will continue to develop the techniques of interdisciplinary research, in association with the public authorities, for the solution of concrete problems within the region which it serves, and that in so doing it will contribute to the elucidation of the theoretical problems which underlie the practical difficulties of urban growth and development.

The lectures and seminars were supplemented by intensive field studies in the cities of Durban and Pietermaritzburg in Natal. Whilst in the Republic of South Africa, Professor Breese paid short visits to the cities of Pretoria, Johannesburg and the Witwatersrand metropolitan region, Cape Town and Port Elizabeth. On his way to South Africa, he was able to visit a number of African cities, including Dakar, Abidjan, Accra, Lagos, Kano, Ibadan, Leopoldville, and on his return he called at Nairobi, Addis Ababa and Khartoum. Though these visits lie outside the scope of this series of studies, they represent an additional increment to the value of Professor Breese's African tour, adding to the total store of working knowledge now in the possession of Princeton University. The University of Natal is happy to have been able to provide the occasion for this opportunity.

Two publications place on record the series of lectures and seminars associated with Professor Breese's stimulating visit; they have been issued under the titles:-

Vol. I: "Urbanization in Old and New Countries".
Vol. II: "Problems of Urbanization" (in mimeograph).

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The thanks of the organizers are also due to the following persons who undertook to prepare material for and to lead discussion in the seminars:-

> Mr. Eric Thorrington-Smith, Natal Provincial Town and Regional Planner;

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> L. T. Badenhorst,
> Director, Institute for Social Research.

> Paul H. Connell,
> Dean of the Faculty of Engineering,
> University of Natal.

Durban.

March, 1964.

CHAPTER   I

THE   CITY   AS   A   WAY   OF   LIFE*

Those who have read the literature of urban studies
will certainly remember Louis Wirth's 1938 stimulating article
called "Urbanization as a Way of Life"[1].   I had the privilege
of working with Louis Wirth for about 5 years altogether, so I
feel some embarrassment in altering the title of his distinguish-
ed contribution into something pretty similar as "The City as a
Way of Life".   I do so solely to honor Wirth and to try to re-
capture for you the kind of interests he generated in me over
twenty years ago.

My remarks will no doubt be different from most others
that have been delivered in this room.   It will not be scholarly
in the sense of giving you the results of some of the research I
have completed, partly because such studies are really limited
in their interest, partly because I find that the more I invest-
igate urban areas, the less I really know about them.   I will
not deal with all cities, everywhere, or all sizes of cities
(I do not know enough to do that).   Furthermore, the astonish-
ing permutations and combinations of urban phenomena defy such
easy generalities.   I will not deal with South African cities,
since I obviously could not presume much insight into them after
having had such a short time to study them.   On the contrary,
my aim is to respond to a long-standing conclusion, that, by and
large, most people who live in cities are unbelievably under, or
misinformed about them, and tend to regard them as very simple in
structure and function, and complainingly regard their problems
as someone else's responsibility.

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* Public lecture delivered by Gerald Breese at the University
  of Natal, Durban, on 3rd September, 1963.

1. American Journal of Sociology, 44:1-24 (July, 1938)

One's personal "universe" is often remarkably restricted, either by intent or by default. This, however, need not be so. To let it remain so is to miss the real significance of one's environment. Compare, for example, anyone who has taken a course in biology with the person who has not, as he discovers the world is not inhabited by men alone; or the person who has studied geology, as he discovers fascinating new dimensions of the surrounding scenery, still unknown to the person who has never been exposed to the subject; or the person who has explored astronomy, and comes to know that the skies are great books waiting to be read with wonder. My function here is to create something of the same sort of discovery for you, to share with you some of the excitement, interest, and pleasure of studying the city as a way of life. My intent is to alert you to some of the excitement of what is really happening right before our eyes, to call attention to the fascinating changes and the processes involved, to suggest the wisdom of planning, on the assumption that we can make the urban environment what we all want it to be; to indicate that the city has tremendous potential as a way of life.

But first, I must reveal my prejudices, and my approach to this subject. My approach to the city is not just from the point of view of urban sociology, but because I have absorbed - perhaps ineffectively, but with great interest - some of the points of view of the urban geographers and human ecologists, my interest in the city is a multi-faced one. First of all as a physical phenomenon: the ecological and technological dimensions of urban areas. Secondly, the city as a form of social organization: a set of complex interrelationships as these affect individuals and groups: and third, as a kind of state of mind; the socio-psychological phenomena of urban areas, in terms of the effects of both the above two mentioned on the subjective experience of men. Finally, the city as an interesting problem in prediction and control; the necessity of making the first, second and third I have mentioned as rationally balanced as possible. Furthermore, I think it is important to indicate that, I am really concerned here with the "great"

cities, that is, those of 100,000 and more population in which approximately 13% of the world's population lives.

Just why are great cities so important? The list of reasons is easy to compile. The city is a locus of national culture, of education, of new ideas, of leadership, decision-making, power; of nation-wide administration, both in the government and the private sector, permeating all the political, economic and military dimensions of our urban society. The city is the major center for the diffusion of all ideas. It is the point of control over the means of communication, the disbursar of finances for the country, both in the public sector and the private sector. It is the foothold and the center for modernization, both in terms of national development and industrialization. It is the theatre in which by experiment can be discovered the optimum modernizing techniques. It is the "face" of the country to the outside world and to its own citizens. It sets standards, provides demonstrations of potential, and has a high symbolic value. It is also the focal point of rapid urbanization, generally beyond the capacity of the city to absorb and service it, of the minimal level living at increasing deficit rates. It is a political cauldron and a potential time-bomb. From the point of view of national defense, it is the maximum point of vulnerability to outside attack.

Returning for the moment to the question of definition, it is clear from the above limitation of this discussion of great cities that we are concerned - as far as the city physically is involved - with agglomerations of sizeable population, and a density of at least 1,000 persons per square mile (1.5 per acre), adequate to introduce impersonal types of relationships, the situation in which social contacts are characterized largely by segmental and formal contacts among individuals who are mobile, free, split in their loyalties, tolerant of differences and variations in types, bound together by the pecuniary nexus, involving extensive interdependence. In other words, coming back to Wirth's definition, "A relatively large, dense and permanent settlement of socially heterogeneous individuals".

What is so fascinating about such a phenomenon?   Aren't cities all the same? Don't they present so many frustrations to life that they ought to be abolished, you ask?   Granted, they are not perfect - a point to which we shall return.   But, I submit, they represent the most complex, and therefore potentially inter- esting way of life imaginable.   We are just so enmeshed in, and so desensitized to the city that we find it difficult - and indeed sometimes impossible - to view it as a whole, to know and be stim- ulated by what is really happening in this universe that engulfs so many.   We cannot see the forest for the trees.   It therefore becomes necessary to re-sensitize you to the environment in which you (and countless other hundreds of millions) are now living.

Pre-conditions of Modern Urbanization. The city, like most other things in life, on close inspection turns out to have a much more complex character than is apparent to the casual ob- server, or even to the average resident.   Take, for example, the interest that you might develop in some of the pre-conditions to urbanization as we know it.   Among them is the necessity for an agricultural surplus.   How crucial this can be was dramatically demonstrated, for example, in the Berlin airlift, the "operation vittels."   It is underlined by the fact, for example, that a city like New York has to go some 1,500 miles or so for its vegetables, that the highly urbanized country of England imports most of its agricultural produce.   Another pre-condition of urbanization which we seldom think about is availability of power supply to operate its mechanism and its implications for urban structure.   The site- piling influence of coal and water power before these were convert- ed to electricity strongly affected 19th century European cities with its centripetal effect.   The dispersive effect of electricity and liquid-fuel engines, where power can be where you want to take it, led to the birth of modern decentralization or scatteration, even though other uses of these kinds of power had parallel concen- trative effects as in the case of the high-speed elevator that has made skyscrapers possible.   Consider also, the pre-condition of technology involved, the improvements in farm machinery that were

necessary before there could be an agricultural surplus for urban development; the advances in sanitation, health standards, medicine; the improvements in the disposal of waste and the control over water supply; the development of typewriters and the refrigeration car. Similarly, the emergence of new forms of social organization, the concept of public health, welfare and safety, the refinement of delegative power ... Can you imagine a town meeting of 12 million people of New York City? Each of these, I submit, could make a fascinating study, the results of which could add new dimensions to your understanding and interest in the city as a way of life.

The Classification of Urban Areas. One of the most common characteristics of students of urban areas is their propensity to classify them. Here is a real test. How do you go about it, what kinds of criteria do you establish, what categories are used? Obviously this will vary depending on your objective, as for example, whether you are classifying as to origin or present characteristics. If origin, you may classify in terms of intersection of routes, in which case you turn up such examples as Paris, Damascus or St. Louis; or the convergence of routes (New York, London or Genoa); or the stopping places such as oases; or in terms of changes in mode of transportation (San Francisco, Alexandria, Cape Town and Durban) or the transfer from land to water and water to land at such modern gateways as Denver or Bologna; or as heads of navigation (Antwerp and Philadelphia); or at the edge of deserts (Khartoum and Tripoli). Or do you classify them in terms of existing functions such as trading, point of assembly, political, educational, or basic and non-basic in their characteristics of economy. The fascination of trying to classify the many types of urban areas we have may help to sensitize you to some of the different aspects of urban areas from the ones you may have been familiar with. It is surprising - it is to me at any rate - how much new insight into urban life can be derived from a little investigation of classification. I suggest you try it.

The Rise of Cities. If you want to discover some brand new chapters in your own history, I suggest that you look at the

rise of cities, including your own. The general history of cit-
ies is extremely interesting in itself; they have not always
been with us; we have passed through many and diverse chapters.
On this I suggest you look, for example, at N.S.B. Gras, An Intro-
duction into Economic History, or Henri Pirenne, Medieval Cities,
or Lewis Mumford, The Culture of Cities, or his more recent The
City in History, or "Urbanization Among the Yoruba" (in the Amer-
ican Journal of Sociology, March 1955), if you want to take a case
from Africa. How does urbanization in South Africa differ? Or
take your own city's history: not just the dates, but the factors
affecting the selection of the site, the people who influenced
Durban's growth, and the unwritten details you can extract by.ex-
erting a little effort to find and talk to old-timers. I promise
you some chapters you might never have heard about.

Existing Patterns of Urbanization. Or suppose history
does not interest you. Look at the present pattern of urbaniza-
tion. Here, indeed, are some real surprises that will set you
thinking. Spend a few hours with some modern atlases, some books
on demography, the latest studies in geo-politics, the United Na-
tions Statistical Yearbook, the publications of international ur-
ban studies units here and there, your national census, to get
the latest - and invariably surprising - pictures of world urban-
ization, national urbanization and regional urbanization. Or
look in detail at the startling shifts in your urban areas as shown
by maps that indicate the limits of built-up areas from decade to
decade. Thus, I suggest, you may be able to see how you fit in
this larger picture, and perhaps achieve some humility in the pro-
cess.

Urban Population. Or, if you have even wondered where
all these people in cities come from and what they are really like
behind their everyday masks, I suggest that you study urban popu-
lation - who lives here? But first, why do people migrate to ur-
ban areas? From whence do they come? Are there "laws" of urban
migration? People have been studying these phenomena for a long
time. Is it true, as Weber said in 1896, that "cities attract
population in proportion to their size?..." If so, then why are
medium-sized cities now growing rapidly? Or, as he also claimed,

"cities draw inversely by their distance"? If so, what accounts
for the heavy migration of Puerto Ricans to New York City? Why
do people migrate to cities? The question, of course, cannot be
discussed in great detail here; if you come up with answers, I
would like to know. Or consider the matter of origin of popula-
tion migration to urban areas. What changes, if any, have taken
place in the relative importance of different sources of urban pop-
ulation increase? To what extent does this depend upon the shifts
in natural increase - the surplus of births over deaths? Or the
influx of the foreign-born, the flow of ex-patriots, the migration
from rural areas, the moves from one city to another? What are
the characteristics of migrants? Are there selective factors at
work here? Is it true that only the young and the most productive
ages are those who migrate to urban areas? Is there a predomin-
ance of male over female, or is it just the reverse? What are the
variations in developed as compared with underdeveloped countries
in these respects? What are variations in migration by type of
city, the kinds of people who come to Washington D.C., for example,
as compared with Detroit? What are the effects of changes in sex
ratio, marital rate, mortality? Is it true that only the more in-
telligent tend to migrate to urban areas? The evidence sounds aw-
fully inconclusive, but that is something that still needs study.
Is it true that there are migration differentials by social and
economic status? The evidence here is also inconclusive.

What about the total urban population: its characteris-
tics, its age and sex distribution for different parts of the city,
the population pyramid variations, the marital status of the popu-
lation? What do you know about the fertility, morbidity and mor-
tality of urban areas? Or the income and occupation characteris-
tics, the density, the differential distribution by distance from
the center of the city, the various correlations of these pheno-
mena? If you were ever under any misapprehension that urbanites
are pretty much alike, such inquiries will set you straight.

Structure of Urban Areas. But let us assume that you have
no taste for classification, history, or demography, there is still

a vast universe of other intriguing features of the urban way of
life.   Take for example, the structure of urban areas.   The
whole question of the difference between site and situation and
the impacts of these factors upon urban patterns, the various
theories of urban growth, the ecological processes involved.
The whole subject of land use, land values, and land ownership
constitutes a life-time area of research.   Much of our discuss-
ion of these matters tends to stop with land use, but as a matter
of fact, of course, this is quite closely related to the question
of land values and land ownership patterns.   These aspects of
the urban way of life - if we spend a little time studying them -
will really open the eyes to the dynamics of urban environment.
What appears to be static, fixed, unchangeable, actually is chang-
ing all the time.

Is it just an accident that Durban is where it is?   Is
it just a coincidence that Cairo is at the head of the Nile Delta
and Khartoum at the junction of the Blue and White Niles?   Is it
merely accidental that Nairobi was built at the last stopping
place before the railroad could enter its toughest construction
phase?   Is it significant that New York City has grown because
it was on an island?   Or because it was the funnel point for a
great tributary area?   Or why is Venice in such an inaccessible
location?   Why did Paris start on an island?   Why was Edinburgh
built along what is now the Royal Mile?   Why are some of the more
recently built parts of Cairo closer to the center than the older
parts?   Why is the Johannesburg metropolitan constellation in the
form of a long crescent?   Why?   Try finding out, and you will
discover some factors you never thought about that daily affect
your urban way of life.

Reference has been made to the theories of urban growth
and structure.   Here is an exciting facet of urban development
that actually can become a special interest, even if you are not
an expert in the field.   One of life's most attractive exercises,
of course, is "second guessing".   You have it after football and
soccer matches.   This question of "second guessing" of the past,

or what we in America refer to as "Sunday-morning quarterbacking", is the attempt to explain what happened, the calculating of what would have happened IF. Such interest arises partly from frustration over what has happened, partly from the desire to arrive at some knowledge that will form the basis for prediction or control the next time.

Believe it or not, but you can also do this with cities by studying their growth patterns and their internal structures, the processes by which these developed, and thus arrive at considerable insight into your urban way of life. A whole array of growth theories has been developed: Burgess's concentric zone, Hoyt's sector theory, Harris and Ullman's multiple nuclei, etc., as well as several less well known attempts at rationalizing the phenomena of urban growth. There is not a single piece of urban property that is unaffected by growth patterns. There is hardly an activity in urban areas that is not controlled by past and existing growth patterns. If you are excited about this, get to work on it. You in South Africa and many parts of the world are fotunate that you have relatively short urban histories, within times when records have been kept, so you are in a preferred position to assemble data for such exploration.

Or, try a first-hand exploration of the ecological processes referred to earlier. It is not long before those who study the growth patterns of their urban areas begin to try to work out something consistent in the way of processes that account for these changes in growth patterns. Perhaps you have noticed some of them and have suspected or discovered that your urban way of life is directly and indirectly modified by them. The professionals call these "ecological processes", because they are concerned with the distributive and symbiotic characteristics of population and functions. The background factors of competition and mobility must first be taken into account for, to a great extent, the city structure is a product of competitive interaction in striving for position. Even though for convenience sake these ecological processes have to be studied one by one, they in fact

act concurrently but often at different rates at different periods in a city's history. We cannot here discuss each of these ecological processes in turn. But I suggest that you study with your own kinds of information - and a great deal of it is at hand - the processes of centralization, decentralization, segregation, invasion, and routinization.[2]

If you do you will be convinced that the stereotype of the allegedly static city is in fact a city in profound flux. It is not too difficult to observe how you both affect and are affected by these processes. How much you can only find out if you study them, objectively and without prejudgement.

Land use, land values and land ownership are obviously very closely related to growth patterns and ecological processes. Take for example, the question of land use. Do you really know the full, physical environmental context of your urban way of life? The chances are slim, since our personal "universes" are so narrow. But look around and ask why things are where they are, as well as where they are. Go exploring in your own city and think about what you find and how it affects you. Observe transportation uses, street and railway patterns. Did you ever realize, for example,

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2. Briefly, "concentration" refers to the differential massing (density) of population resulting from its being attracted in residence to some places more than others; "centralization" refers to the progressive increase of functions in number, variety, and importance at the center of dominance of an urban area; "decentralization" refers to the movement of people, uses, and functions away from the center or their location at alternative dispersed points; "segregation" has two facets, one involving the concentration of like-population units within specific areas by attributes of race, language, custom, income, etc., and the other being the specialization of uses (non-population units) in particular areas; "invasion - succession" refers to the penetration, to various degrees, of a segregated or specialized area by a population group or use different from the one already there; "routinization" is a new ecological 'process' first delineated by this writer, and refers to the daily movement of population between place of residence and place of daily activity, and of goods from point of origin to point of use.

that streets use somewhere between 15 to 25 per cent of the total urban area? Why is this so and what difference does it make? Did you ever list the multiple functions that must be performed by streets? They will give you some understanding of the difficulties of transportation. Did you ever study street patterns and the impact they have on adjoining areas, why they were so laid out and where they are? Or take the question of open space. Perhaps you have noticed the inverse relationship between density and open space or play areas. Have you ever found out what happened to the open space the public used to own, or why there is a raceway through your "park", and why it is so far to the nearest place to fish?

Or take commercial and industrial land use. A sample of relevant questions may suggest the ramification of these subjects. Why - as has been seriously suggested - can't we just give up the central business district? Why are industries where they are? Or residential land use? What are the limits of the best, second-best, and lower levels of housing and why? Did you ever compare a map showing population distribution with one showing structural type? Has it made any difference to skip the streetcar stage in the development of some cities? Why, really why, have the taxes gone up? What difference does it make in your way of life that you live where you do and other things are where they are?

Similarly, consider the question of urban land values. Unless you are in the real estate business, you are doubtless light-years away from any notion of the total value of land and improvements in your city. Yet that heavy investment introduces rigidities that keep your city from doing many of the things it needs to do and you might like to do. Just what are the facts can be found out rather easily, and will provide many subjects for thought when related to growth patterns, the ecological processes, the distribution of land and population etc., ad infinitem. The more complex it gets, the more of a teasing puzzle it becomes.

Land ownership has its own intriguing aspects. Who owns what and where, and how is the public interest represented? This

indeed can be very significant, because, for example, the whole
pattern of urban growth can be substantially affected by the de-
cision of one large land-holder to sell, and for what type of use.

        <u>Urban Social Structure</u>. Or, perhaps, you don't care to
be concerned with such matters, you just like people. If so, there
are rich fields to explore in the social structure of the urban way
of life. The urban way of life for the individual, the group, and
institution is, of course, affected by all the factors discussed
earlier, and many more. For example, the large size and density
of the population, the high geographic mobility of the population,
the high degree of specialization and interdependence, the expan-
sion of service activities, etc., all modify and make more complex
the life of the individual, his group, and his institutions.

        Take the urban individual, for example. The chances
are very high that long-time urbanites are so accustomed to the
impact of the city on them that they no longer realize or recog-
nize the diverse, direct and subtle, not to mention insidious ways
in which the city molds their lives and thinking. But in view of
the fact that migration to our cities has contributed much to the
population, this is a matter of great, and sometimes bewildering
importance to the newcomer. The major features of the city's
impact on people are easy to point out and fascinating to study.
They include the institutionalizing of contacts among people and
the development of routines for doing everything to ensure predic-
tability; the exposure of the individual to a much wider range
of situations than elsewhere because of the size of the population
and the congestion that multiplies contacts with diverse situa-
tions; the special pathologies of cities; the depersonalization
of the city; the dependence on money, which makes the city seem
like an amoral universe surging with opportunism. The predomin-
ance of secondary types of relationship, developing segmental con-
tacts, derives partly from the division of labour. One's con-
tacts with others are marked not by the phenomenon of spatial prox-
imity but social distance; for most of the people we meet we see

as role takers, as uniforms, not as individuals.

If you begin to wonder, as a result of some of these questions and others that might be raised, how much you know about the individual, especially those unlike yourself, and his way of life, here is a real new world to explore.

What about groups in the urban way of life? How do they respond to their members having such high mobility, yet feeling the importance of group participation because of the fractionalization of contacts and the segmental nature of their interrelationships? It is apparent that the individual in an urban area often counts for virtually nothing; if he wishes to be heard he has to associate himself with other like-minded members in a group. Indicative of this may be the comment made by a large city's mayor when approached by an individual about a pressing issue, "I don't care who you are; I want to know how many you represent!" What does this facet of the urban way of life mean for both the member and the group he joins? How nearly correct was Park when he noted that the things a man belongs to make up most of his life and all his obituary? Here one can only touch the surface of this aspect of the urban way of life. If you yearn for a little variety, take a long, hard and reflective look at these phenomena.

What do we really know about urban institutions? It is impossible to discuss them in detail, so I shall only suggest a few 'way of life' teasers you may wish to explore. Take for example, the family. Is it true, as has been alleged, that the city is the most insidious destroyer of the family tie? What do the increased employment of women outside the home, and the wide separation of place of residence and place of work for father, mean in terms of "absentee parenthood"? What about the extensive transfer of functions out of the family to government, to provide, for example, security in old age; to the school for virtually all education, even down to pre-kindergarten; to the church, for most religious training; or to the voluntary associations, almost to the extent that the home becomes just a head-

quarters where you sleep and change your clothes, and hopefully collect some additional money?

What is happening in the case of urban institutions of religion? What will be the results of the tendency towards large scale operations, the tendency towards specialization and departmentalization, towards stratification, or towards the proliferation of sects, or towards secularization?

With regard to educational institutions, what is the impact of new curricular changes, the new educational philosophies, the special training that is now available for the vocationally inclined, the handicapped or the exceptional child? Is neighbourhood districting by cutting off children in one area from other segments of the public, leading to slow democratization? Broadening ages must increasingly be served, from preschool through adult. In view of the increased age of the population, more leisure time, earlier retirement, adult re-education may grow increasingly more necessary. If you have been somewhat, albeit unwittingly, cut off from such institutional revolutions, even a cursory exploration will sharpen your sensitivity to these new ranges in the urban way of life.

The Mechanics of Urban Life. Only rarely does the ordinary urbanite give much thought to that great, complex and crucial array of operations that make a city 'work' physically: supply, waste removal, communications and transport, government. Space permits no more than passing reference by a few pertinent questions, but the importance of these operations cannot be understated.

Take, for example, the whole question of supply, the intricate, highly synchronized (in spite of its casual appearance to the uninitiated) system for bringing to the city all those goods and materials it needs to survive, involving varieties of people, transport, wholesalers, retailers, credit systems, etc. Some clues to its nature are suggested by that manhole in the city street, those freight cars on the track, and the hustle and bustle of the wholesale markets that most of us never get up

early enough, or stay up late enough, to see. Equally import-
ant is waste removal. How can an urban area survive without a
satisfactory system of disposing of its sewage and waste. Com-
munications and transport are certainly essential for the move-
ment of people and goods. Urban government (though it might be
classified as institutional) must cope with a multitude of prob-
lems such as the demands for additional services, concurrent in-
creasing costs, thus raising the question of municipal income and
how to achieve a rational tax base for an urban area. Here the
urban/rural relationships are still most complex. In the United
States, for example, we have a situation where the rural tail
often wags the city dog. The production of a viable metropoli-
tan-wide government to cope with metropolitan-wide problems is a
very high priority. It should be evident that here is another,
and pervasive, dimension of the urban way of life, mostly vir-
tually unknown to the ordinary urban resident.

Perhaps now it is appropriate to pause and take stock,
to remind ourselves that, for convenience sake only, we have looked
at these various aspects of the urban way of life one at a time.
From the course of the discussions so far, it is possible to be
led to the conclusion that the urban way of life is so thoroughly
established that little can be done about it, that the capacity
to alter it and presumably, improve it, is very weak indeed. How-
ever, it becomes obvious that this must not be the case, for ci-
ties have changed in the past and continue to change. The ques-
tion is, must such change be haphazard, or can it be so rational-
ized and ordered to optimize the potentials of the urban way of
life? The answer, I think, is to be sought in urban planning.

Urban Planning. Planning, of course, is much too broad
a subject to discuss here at this hour, but there is an inescap-
able kind of logic to it. The wise nation plans, the wise busi-
nessman and industrialist plans, the wise family plans. It
should come as no surprise that the wise urban area must plan if
it is to maximize its resources and chart its course. There is
a long history of planning, and we cannot cover it here. But I
might remind you that it wasn't raining when Noah built the ark.

The dimension of this whole question of planning is suggested by an old and tested definition of the comprehensive plan that may suggest some of the different aspects that might be of interest to you:

"The comprehensive plan of an urban area is the well-considered correlation of those immediate and long-term needs, purposes, and desires of the people which have been found suitable, feasible, and capable of expression in physical terms, presented as a guide to assist private individuals and public officials in the achievement of beneficial objectives through co-ordinated action. In origin it must be realistic; in scope it must be broadly inclusive; in outline it must be bold and imaginative; in detail it must be flexible. Such a plan provides the basic framework for directing the development of the urban areas and prescribes interpretations to facilitate its realization. Within that framework, complete freedom to function under the law is accorded to both public and private enterprise".[3]

In other words, planning is concerned with two major jobs. First is the correction of the consequences of past urban growth. A great deal of re-planning has to be done; a very large component of urban planning must necessarily be concerned with this. Second is the guiding of future urban development, especially the large-scale lay-out, utilities, and fiscal programming; obviously this is crucial for such purposes as prediction and control. Urban planning proceeds, ideally, in an appropriate governing context, by a series of basic studies, by co-ordination of previously discrete or specific plans, by rationalization of income-producing schemes and long/short range expenditure programmes, by the joint work of technicians and the public, by establishing regulations such as zoning to effectuate the terms of the plan, and by continued re-planning. The pro-

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3. From Chicago Planning Commission Annual Report for 1945.

cess is more easily described than accomplished, as by now should be clear if all of the various aspects of the urban way of life are to be brought into consideration. Planning is one more inviting aspect of the urban way of life, since the choices that determine your urban way of life can be affected by your role in urban planning.

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This lecture was conceived with the following objectives in mind; they are very simple but I do not apologize for them. First and hopefully to alert you to the hitherto overlooked or under-appreciated aspects of the urban way of life; second, to remind you of its richness, variety, dynamism and complexity; third, to suggest the significance of studying some of these in more detail for your own enrichment and real enjoyment; fourth, to suggest the great potentials of the urban way of life. If some of this has been accomplished, I shall be pleased that I could have shared some of my enthusiasm for the urban way of life - for as all my friends and family know, I am just a country boy who for twenty-two years has been having a love-affair with the city!

The exciting thing about it now is that for the first time, and in very great numbers all over the world, people are being exposed to urban life as never before, producing colossal problems and fantastic potentials in this momentous change. The inescapable fact is that it is going to grow even more urban. Obviously already quite revolutionary in its impact; it seems especially to be so in forthcoming decades.

Alas, however, the incontrovertible evidence is that all is not well with our urban areas. As I stood high on a hilltop overlooking a city that must remain nameless, a city steaming in the relentless heat, shot through with abject poverty, I could think only of the hundreds of thousands down there who had tried the city, found it wanting, and had no escape. For these and their number as in the Bible is legion, the city is an all-con-

suming hard way to death - not life.

Must we continue to contemplate only a dreary urban scene? One of the real tests of our civilization will be whether we can, or will, transform these conditions into a genuinely rewarding urban way of life for all, so that each person, as did the philosopher, can proudly say: "I am a citizen of no mean city".

CHAPTER II

SUBTOPIA - U. S. A. STYLE*

The title Subtopia - U. S. A. Style is not meant to con-
fuse by inventing a word, but to be helpful by indicating that I
shall deal with what some persons allege is the suburban utopia
to be found in the United States of America.   My intent is to
examine the nature of this phenomenon, explore its implications
for urban society, and assess whether the designation and claims
are defensible.

Since we shall be discussing only one feature of urban
America, it is imperative to see that feature in proper context,
namely, the total urban complex as it stands today in the United
States. Unexciting as statistics may be to some, they do provide
a means to understanding our urbanization, at least in broad-brush
terms.

Growth has characterized urbanization in the United States
- growth beyond any expectations of population predictions at the
turn of the present century. Various indices of the changes are
available. It was not just the large cities that grew, but cities
of all sizes. In the fifty years between 1910 and 1960 for ex-
ample, the number of cities of 100,000 population or over increa-
sed from 50 to 131, while cities of 25,000 or over rose from 228
to 761, and cities of 10,000 or over also more than tripled, from
597 to 1,907. The U. S. Census of Population delineates Standard
Metropolitan Statistical Areas (SMSA), which are composed of cen-
tral cities of 50,000 or more population plus the county (somewhat
comparable to Magisterial Districts in South Africa) of which it
is a part and adjoining counties having a close tie with the cen-
tral county. There were some 52 SMSA - type areas in 1900, and
they increased in number to 212 by 1960 in continental United Sta-
tes, together embracing 62 per cent of the total U.S. population.

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*   Public lecture delivered by Gerald Breese at the University of
     Natal in Pietermaritzburg on 14th August, 1963, and in Durban
     on 22nd August, 1963.

More significant for our present purpose is the fact that
in the decade 1900-1910 the SMSA's were growing at the rate of
32.6 per cent, their central cities at the rate of 36.6 per cent,
while the areas outside the central cities were increasing at only
9.9 per cent. By the 1950-1960 decade, however, though the SMSA's
were increasing at the rate of 26.4 per cent, their central cities
were growing only at the rate of 10.7 per cent, but the out-lying
areas were increasing at the significant rate of 48.6 per cent.
This more than complete reversal underlines the remarkable growth
of suburban areas, the focus of our concern here. The same phe-
nomena can be represented somewhat differently, for example, by
imagining two-mile deep concentric zones around the center of Chi-
cago. In both 1900 and 1910, fully 50 per cent of the Chicago
area's population was located in the 0-4 mile zone, in 1920 in the
2-6 mile zone, in 1930 and 1940 in the 4-8 mile zone, and in 1950
in the zones beyond 6 miles from the center of the city. This
pattern of shifts in location of the majority of the population is
paralled in many other metropolitan areas, roughly in distance
zones proportional to the size of the metropolis. Since the cen-
tral city limits of most American metropolitan areas are much clo-
ser to the city's center than is common in South Africa, this means
that most of the metropolitan population growth occurred in the su-
burbs. In some respects this phenomenon is the single most impor-
tant feature of American urbanization.

Most astonishing of all has been the growth of "strip
cities", or variously scaled versions of what Jean Gottman has made
famous as "Megalopolis."[1] Gottman's Megapolis stretched some 600
miles from Portland, Maine, to Norfolk, Virginia and embraced about
35 million persons, or some twenty per cent of the total United
States population, in one strip of urban development over roughly

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1. Lewis Mumford, in The Culture of Cities (1938), earlier used
   the term extensively. The recent study by Jean Gottman,
   Megalopolis: The Urbanized Northeastern Seaboard of the United
   States (New York: Twentieth Century Fund, 1961), analyzes this
   area exhaustively.

five per cent of the country's total land area. A weekly maga-
zine, U. S. News & World Report[2] in September 1961, called the
attention of its readers to 13 strip cities (including a modifi-
cation of Gottman's) each of over 2 million population, in differ-
ent parts of the United States. These ranged from the Kansas
City-Sioux Falls strip involving 2,078,929 persons to the Boston-
Washington strip involving 31,469,488 persons, the former exhib-
iting a percentage increase since 1950 of 23.9 and the latter a
15.7 percentage increase for the same period. Together, the 13
strip cities were represented as embracing more than 89 million
people, or about 50 per cent of the total U. S. population, with
a growth rate of 25.7 per cent since 1950. Looking to the future

2. "Sprawling 'Strip Cities' - They're all over U.S." Special
   Report, in U. S. News and World Report, September 18, 1961,
   pp. 73-75, 77-78. All data from U. S. Bureau of the Census,
   "Standard Metropolitan Statistical Areas, 1960;" Retail
   trade data from U. S. Dept. of Commerce.

STRIP CITIES

13 Strip Cities	Per Cent of U.S. Population	Population	Per Cent Increase Since 1950
Boston/Washington	17.5	31,469,488	15.7
San Francisco/San Diego	7.6	13,590,821	51.2
Chicago-Gary/Milwaukee	4.8	8,663,007	22.9
Cleveland/Pittsburgh	3.7	6,558,551	14.6
Detroit/Muskegon	3.2	5,720,692	25.7
Fort Worth-Dallas/San Antonio-Houston	2.5	4,541,207	43.1
Albany/Erie	2.1	3,696,081	17.9
Miami/Tampa Jacksonville	1.7	3,043,450	96.5
Toledo/Cincinnati	1.5	2,657,385	22.7
St. Louis/Peoria	1.5	2,746,168	19.1
Seattle/Eugene	1.3	2,413,590	23.7
Atlanta/Raleigh	1.2	2,216,100	32.9
Kansas City/Sioux Falls	1.2	2,078,929	23.9
Total 13	49.8	89,395,469	25.7

the projection for 1975 was that these strip cities would hold about 60 per cent of the U. S. population, and that their growth rates would be fast, judging from the fact that in 1950-1960 the metropolitan areas of these 13 strip cities accounted for two-thirds of all U. S. population growth, with all but three exceeding the U.S. growth rate of 18.5 per cent. The nearest South African equivalents to these strip cities are Johannesburg (Witwatersrand) and Cape Town agglomerations, both being comparable only to the lower levels of the U.S. strip city scale.

In other words, this is the kind of urban context of much of suburbia in the United States. Outstanding is the fact that the major part of very great growth in American urban areas is taking place in the suburbs.[3]

American suburbs are characteristically composed of single-family residences of one or two stories. The structures generally have a living room, dining room or dining extension of living room, kitchen, and bedroom for parents and each child, together with ancillary baths. A two-car garage is not uncommon. The whole is likely to be placed on a lot of one-half to three-fourths acres, with front, rear and side yard set-back lines far enough away from the neighbouring houses to permit considerable privacy. Often the house is designed to "face inward" for privacy in a rear yard that encourages outdoor living. Somewhere nearby - certainly within school bus distance - will be schools, shopping districts, churches, commuting bus or train stations etc. These are the components of what is sometimes claimed to be a suburban utopia.

American urban society is not necessarily the same as that of other countries, although many similarities are noticeable, for example, in South Africa. It may therefore be helpful to note a few characteristics of the American urban way of

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3. It is important to note that, in the United States, central cities are relatively small in area in comparison with those in South Africa.

life as a back-drop for studying Subtopia. No attempt will be
made to be comprehensive; rather, certain major features will
be mentioned as illustrative, and presented in semi-staccato
summary form.

Urban-industrial living generally takes place in the con-
text of large size and density of population, relatively to the
stereotype of rural life. The nature of urban activity commonly
involves a high degree of specialization and interdependance, most
urban residents knowing that they cannot do everything required
for their daily needs so it becomes necessary to specialize in
one's own occupation and hire the services of others to do the re-
mainder. Consequently, there is a sizeable expansion of service
activities. As technologies become more and more complex, more
specialized technicians are necessary. This is accentuated by the
increase in leisure time incidental to the shortened work week,
creating demands for even more specialists to organize and staff
activities related to new leisure pursuits. There is high geo-
graphical mobility of American urban residents, necessitated by
the preference toward the areal separation of land uses and func-
tional areas, with resultant requirements to move regularly from
place of residence to place of daily activity.

Together, such factors, among others, put a high premium
on the development of mechanisms for handling the multiplicity of
human contacts involved, some marked by mere physical contact, as
in the crowded subway, and others extending to quite intimate re-
lationships, as between lovers. The daily round of urban life
among countless individuals makes necessary some routine measures
for coping with these encounters. Thus the urbanite early exhib-
its a "propensity to classify" the diverse peoples with whom he is
thrown together, to establish convenient and readily applicable
categories of persons and more or less automatically react to th-
eir presence in stereotype fashion. An attempt to identify per-
sonally with everyone from the newspaper vendor to company presi-
dent is too great a strain to be carried daily. The former be-

comes a "hand" into which a nickel is placed to receive a news-
paper;   the other a figure to whom one addresses a proper "Good
Morning, Sir," no matter how you may feel personally at that
moment.

In the process, there is a "search for common measures"
that are useful for predictive purposes, yielding a clue as to
which routine postures you must adopt in each encounter. Style
of clothing, the neighbourhood the individual frequents, the
marks of his occupation, the manners which he exhibits - all be-
come touchstones for quick classification and appropriate response.
The successful carrying out of the many daily acts that must take
place call for the establishment - and compliance with - formal-
ized controls and predictive routines: you must know the way to
deposit money in a bank; both the janitor and the mayor must per-
force stop for the red light in the traffic signal, or complete
chaos would result.

The very complexity of urban living, the dependance upon
the pecuniary nexus for many exchanges of services inevitably lead
to the substitution of secondary for primary types of contacts.
As a result the urban individual may find himself moving in situ-
ations of close spatial proximity to large numbers of people, but
great social distance, nevertheless. The preponderance of seg-
mentalized contacts compels making distinctions between people as
persons and people as role-takers. One sees the "uniform", not
the man. The handsomely uniformed person who opens the hotel
door as you approach is but an automaton; if your very life de-
pended on it, you probably could not describe his face ten sec-
onds after you pass through the door!

The very occupational specialization spawned by urban
and industrial living tends to introduce such great social dis-
tance among some workers that they become identifiable as "types"
with characteristic dress, customs, and language. The Madison
Avenue Advertising Executive, the Professional Politician, the
Wall Street Banker, the Bridge-Playing Matron, the Career Woman -
such types live in their own little universe, often practically

out of touch with other segments of urban society, isolated by their compulsive conformity to the ways of their peers.

It should be no surprise that, given these characteristics of urban living, the individual seeks means of satisfying those of his needs and interests not met in the segmentalized contacts of his daily working life. The special interest club - sometimes known as voluntary association - is a common recourse for such satisfactions. These interest-specific organizations are widely varied in nature and somewhat differentially participated in by different segments of the population. One way or another, nearly everyone seems to be attracted to some variation of these special interest groups. By affiliating with one of these groups, one can find like-minded city folk - the photography club enrolls both the messenger boy and the department head; here the criterion is competence in photography, not status in the workaday world. For some members, these clubs are fringe activities; for others they serve as the only significant focus of their lives, become the source of their closest friendships, and make the other days of the week tolerable. Robert E. Park, pioneer sociologist, may have been more nearly right than he realized when he noted that "The things a man belongs to constitute most of a man's life and all of his obituary".

Even here, however, life is fragmentized for the urbanite. By definition, these are special interest groups, and, as Louis Wirth long ago pointed out, the tendency is for no single group to get the undivided attention of a person, since it becomes necessary to affiliate with many groups to satisfy different facets of interest. Furthermore, Wirth noted that group solidarity is often on a shaky basis, partly from the high turnover in membership that results from social mobility and physical footlooseness. Nevertheless, the urban individual recognises that as an individual his voice counts for little in the big city; if he is to be heard, it will most likely be through pressures that can be exerted via organized groups.

This is not the occasion for dissecting urban society, which is clearly much too large an assignment for the time at hand. It is perhaps sufficient to let what has been noted stand as clues to the nature of urban living, and to hasten to add that, for those who live in suburbia, such characteristics are even accentuated by living in outlying locations which not only physically, but symbolically, isolate their residents from much of the remainder of the larger urban area and its residents. The almost universal necessity of the suburbanite's daily journey to work or place of daily activity - for the wives and children also participate in the frenetic moving about- redistributes the population so that, for example, the suburbs are inhabited every day by practically no men, just residual masses of women and children. It does not follow that this is conducive to satisfaction for all concerned, and it invites such difficulties as may arise from absentee parenthood. If a commuter leaves early and returns late, he may not even see his younger children except on week-ends or when they are asleep in bed! Still another divisive factor may be at work, consciously or otherwise, to isolate the suburbanite from his fellow citizens, namely, the increasingly frequent segregation of income and other groups as a result of subdivisions (developments in South Africa) designed for occupancy by narrow segments of the population, the price of a home, for example, sorting out residents by income.

Is this the kind of life implied in Subtopia, the often highly praised way of life for millions of Americans? Is this the reality hidden in the prestige magazines, the movies, and the Sunday newspaper magazine supplements? Let us not be deluded; the facts suggest that all is not gold that glitters. Somewhat belatedly, and in a kind of embarrassed minor key, even popular literature is beginning to admit some disenchantment. This you will find in A.C. Spectorsky's The Exurbanites, John Keat's The Crack in the Picture Window, Gordon and Gunther's Split-Level Trap and similar well selling books, not to mention more serious and sober analyses by social scientists. There is a gradual awakening to the fact that extensive suburban development is having serious con-

quences for both the central city and the suburban components of urban areas. There is considerable questioning about the long run effects of 'decentralization' of population, commerce, and industry.

The implications of present trends in metropolitan development, including the 'decentralization' mentioned earlier, are becoming clearer with the passing of each day. For the central city in the urban pattern, the costs are becoming more evident than ever before. Recent trends tend to cost the central city the loss of much of its tax base, the loss of much of its leadership which identifies with the suburbs when it moves there, the loss of support for many types of cultural activities since they are made available in the suburbs. At the same time the central city is experiencing an increase in the numbers and percentages of its population made up of low income and minority groups, many of which require more public assistance than the population which has moved to the suburbs. Concurrently, advancing years mean advancing blight, progressive obsolescence, and overcrowding; such circumstances inevitably represent threats to existing public and private investments in real estate, facilities, etc. It is also obvious that the central city has to stand the cost of many facilities – its streets for example – which are used by suburban people even though they contribute nothing to their support.

Conversely, the suburban areas gain by what the central city loses in tax base assets and other features listed above. On the other hand, the suburbs also have their problems, particularly in financing the services and facilities – schools, utilities, streets, administrative staff – which it ordinarily is called upon to provide within an extremely short time span. In addition, there are certain shared problems of central city and suburbs, frequently stemming from the cumbersomeness and inefficiency of separate operations coping with what are functionally problems common to both, problems which are no respectors of political boundaries. There is obvious irrationality – not to mention greater expense – in separately attacking urban transportation, water supply, sewage dis-

posal, open space and recreational facility problems. Functional interdependance of city and suburb would suggest coping with financial problems of both through a viable economic unity, but so far there is little progress in this direction. Dual city planning staffs, not infrequently working at cross purposes for lack of contact and co-ordination, must inevitably produce conflicting and unworkable programs. The dead hand of past and out of date delineations of urban boundaries is the curse of both central city and suburb.

Again it is necessary to shorten our analysis, but enough has been said to indicate that serious "second thoughts" are being raised about the kind of urbanization and suburbanization (subtopia) that have been created. Not all the second thoughts and questions need be repeated here. A few will suffice to highlight the situation. They will be mentioned, not in order of importance, but as selections to indicate the range of issues involved.

For example, what is the desirablility of creating income-specific or status-specific suburbs, with the result, among other things, of creating a situation in which children attend schools only with children exactly like themselves? What will be the outcome of concentrating low income and low status segments of the population in central cities, to the extent that our former 'melting pots' of which we have been so proud are fast becoming troublesome 'pressure cookers'? Where is community focus in so many suburbs; is it to be found in the endless vistas of television antennas high above carefully manicured lawns? Must we settle for a kind of 'absentee parenthood' for father, so that the small child must ask its mother, "who is that man who is here all day Saturday and Sunday?" Is it desirable to create 'baby factories' twenty-five miles from the nearest symphony hall, where the mother is cut off - particularly if there is only one car in the family - from 'outside' civilization in a kind of detention cell or house arrest? What is the meaning of frenetic joining to seek identity, of endless taxiing for the housewife between train terminals, schools, dancing classes, and the dentist? What gains derive from

the suburban compulsive competition for the longest wheelbase and biggest tail-fin, or largest swimmingpool? Is the urban way of life limited to endless shuttling from place of residence to place of daily activity - or, as someone has defined commuting, daily journeys between a place one would rather not live and a place one would rather not work?

It would be useful to extend our study of suburbanization if space permitted, particularly to detail some of the more positive aspects; these have been neglected only because there has already been so much - real and not so realistic - written about them. Perhaps it is more appropriate to halt here, and refresh ourselves, in conclusion, as to our intent. It is hoped that these comments will constitute a mild attempt to sensitize you to the choices in your own patterns of urbanization, to call your attention to the siren call of suburbanization that seems to promise that you can both eat your cake and have it too. It is meant to suggest the tremendous costs that are involved in the kind of urbanization American cities have, mostly by default. It is intended to admit that, though much can be said for urbanization in the United States, it could be far better than it is - for our Subtopia is substantially sub-utopia.

In the present, and certainly in the not too distant future, you will most certainly be making choices as to what type of urbanization you want, where you wish to live. Your choice is likely to be in favour of suburban living, sooner or later. If so, then you have a real challenge, a real opportunity we no longer have ... to improve on the American model!

CHAPTER   III

URBANIZATION IN RAPIDLY DEVELOPING COUNTRIES:
SOME OPPORTUNITIES AND PROBLEMS*

Urbanism in rapidly developing countries, its problems and opportunities is obviously a very large subject, parts of which have already been extensively treated in the literature.

Although my discussion will include examples of specific cases, I shall be generalizing on my experience in many countries in different parts of the world, with the exception of South America, which I do not know firsthand. My function is to consider the nature of urbanization elsewhere in rapidly developing countries of the world.

Underdeveloped countries are among our major interests everywhere. Their urbanization is gradually becoming more nearly like Western urbanization. Actually, however, urban life is no newcomer to many of these countries; in some it has existed in limited form for a long time. There are early records of very heavily populated cities, but these often seem to have been more nearly enlarged agglomerations than urbanization in the contemporary sense. Africa itself has had some remarkable history of urbanization, though of a somewhat different type, such as among the Yoruba tribes in West Africa. It is interesting that such urbanization has taken place even when the traditional preconditions of modern urbanization are not all met.

This discussion first raises some questions about the definition of rapidly developing countries, what urbanization is under these circumstances, and why they exhibit a trend towards urbanization. Second, it asks who are the migrants to urban areas, what happens to them when they move to cities, and what major problems exist in this connection. Finally, it reviews certain related problems.

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*   Public lecture delivered by Gerald Breese at the University of Natal, Durban, on 20th August, 1963.

What are rapidly developing, or underdeveloped, countries?
The words are commonly used interchangeably. The terms "under-
developed country" or "rapidly developing country" tie for first
place with "population explosion" for having a very vague and un-
structured meaning, having been used so loosely that they scarcely
mean anything any more. "Rapidly developing" and "underdeveloped"
are highly relative terms.

By what test is a country so classified? Is it classified
underdeveloped because it is less developed than other countries?
One way to approach the question is to consider some of the common
characteristics of underdeveloped countries. Harvey Leibenstein[1]
for example, has reviewed the characteristics of underdeveloped
areas as listed by various authors and consolidated them into an
organized list of some three dozen items. They are arranged in
four categories. First, in the economic category, Leibenstein
notes the heavily agricultural employment of such countries (more
so even than the output would seem to require); the low levels of
capital, income, and savings; the low level of living. Second,
demographic characteristics of such countries are likely to include
a combination of high fertility and short life span, with poor diet
and abysmally low levels of hygiene being involved. Third, cul-
tural and political characteristics generally include a low educa-
tional level, low position of women, use of child labor, little or
no middle class. Finally, technologically the countries are like-
ly to show low yields in agriculture, crude technology and very
little training for technology, as well as grossly inadequate fac-
ilities for transportation and communication.

National status symbols receive high priority: a real
underdeveloped country often feels it must have a national air
line, a hydro-electric dam, a steel mill, an automobile assembly
plant, a skyscraper, and if possible a nuclear power plant! More
often than not, its government is characterized by an internal

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1. See especially pp 39-41 in Harvey Leibenstein, Economic Back-
wardness and Economic Growth: Studies in the Theory of Econ-
omic Development (California Institute of Industrial Rela-
tions, Research Program Series) New York: Wiley, 1957.

struggle for power.

The definition of urbanization is only slightly less
difficult than the question of what is a rapidly developing or
underdeveloped country. The traditional definitions of urbani-
zation are not entirely satisfactory in this context. For exam-
ple, some large aggregations of people are obviously not urban.
Attempts to define urbanization in terms of occupation or the
existence of certain institutions has sometimes been tried. One
is inclined to return to a definition by Louis Wirth in which an
urban area is one that involves a large, dense, permanent settle-
ment of heterogeneous individuals. This seems to be a test for
urbanization even in underdeveloped countries, though Wirth did
not have this in mind at the time.

When you look at underdeveloped countries, you realize
that their urbanization varies in terms of the percentage of the
total population living in the large, middle-, and small-sized
cities, as well as in terms of the level of urbanization. It va-
ries in the rate of increase in urbanization in different-sized
places; it varies in whether urbanization is concentrated in a
small number of very large cities, as in West Africa, or, whether
otherwise. It varies as to whether cities are more or less even-
ly distributed geographically, or whether they are clustered in
one area. It varies in terms of whether they follow the "rank-
size rule" of the distribution of large urban areas, or whether,
for example, in any one country there is only a primate city, and
the remainder nowhere approach being like the biggest one.

Just what are these urbanization trends that have been
mentioned? The statistics are startling. Data collected by Davis
and Golden[2] in a study of urbanization over the world indicates
that world population in 1800 was 906 million; by 1950 this had

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2. Various sources, including <u>Bulletin of International Statis-
tical Institute</u>, Vol. 33, No. 4, 1951; See also United Na-
tions, <u>Report on the World Social Situation</u>, New York, 1957,
and "The World's Great Cities", <u>Population Bulletin</u>, Popula-
tion Reference Bureau, Inc., Vol. XVI, No. 6, Sept. 1960.

increased to 2400 million. In 1800, three per cent of the world
population lived in cities of 5,000 or over; there were 750 such
places. By 1950 about thirty per cent of the total world popula-
tion was living in places of 5,000 or over, the number of cities
having increased from 750 to 27,600. This is a phenomenal increase
in urbanization.

Another way of looking at this is by comparing the growth
rates of world population and the population of great cities (pl-
aces of 100,000 or more population). In the period 1800 - 1850,
world population increased at the rate of 29.2 per cent; the per-
centage change in cities of 100,000 and more during that period
was 76.3. The percentage increase in world population in the next
fifty years (1850-1900) was 37.3, but the percentage change in pl-
aces of 100,000 and more had jumped from about 76 in the previous
fifty years to about 222. In 1900-1950 the world population in-
crease was 49.3 per cent, while the increase in places of over
100,000 was 254 per cent. So during the period 1800-1850, these
"great cities" were growing at the rate of about 76 per cent as
contrasted with 254 per cent in the period 1900-1950.

What about urbanization by world regions? In the case of
Asia, the rate of growth of these "great cities" in 1800-1850 was
24.5 per cent, increasing by 1900-1950 to over 444 per cent. In
the case of Africa, such cities in 1800-1850 were actually decrea-
sing at the rate of 16.8 per cent, but by 1900-1950 they were in-
creasing at the rate of 628.6 per cent. There is an astonishing
variety of urban areas in underdeveloped countries and any gener-
alization made about them must be taken in the context of the coun-
try and the culture. For example, it is obvious that there is a
great deal of difference in urbanization between Japan and Ceylon.

In any case, it is necessary to go back one step further
and raise the question: Why this trend of urbanization in under-
developed countries? There are numerous reasons, most of which are
familiar. As demographers have told us, there has been a reduction
in the death rate - even in the bush country - and no diminution of
the birth rate; as a matter of fact, in many cases it has increased.

You cannot have these two things happening without the population going up. There has been an increase in the pressure on food supply; the earlier relationship between a high death-rate and agricultural production for rural living in underdeveloped countries has been upset and strained by population increase. The agricultural yield in such countries has not increased as fast as the population, and this inevitably has had all kinds of side effects. In addition, certain developments have led to the erosion of customs and accelerated migration from rural areas. Invasion of non-tribal authorities undermines the tribal authority itself and makes it easier for the population to move. The tall tales of returnees from the city increase the propensity of people to move on to another kind of life; the success stories are the only ones that survive when the villager goes back to the village; he does not tell of the failures that he has had. The demands of modern society also have affected rural areas. The construction of new roads into the countryside, with its introduction of different kinds of people and new ways of doing things call attention to the urban world. Once tasted, the advantages of living in towns appeal to the people in the countryside, where they often do not have a good water supply, sewerage, sanitation, hospitals, access to education, paid employment prospects. The general feeling develops that you have not really lived if you have not been to the city, that you ought not to be considered a man if you have not been there. In a way, it is the old question we faced in the United States after World War I - the question raised in the following line of a popular song: "How are you going to keep them down on the farm, after they've seen Paris?"

These factors and many more are strengthening a kind of tropism towards the city. The most significant thing about it is that increasingly it is a one-way migration - the villager does not go back. We have ample evidence of this, including studies that have been made in South Africa.

Who are these rural migrants? We have to understand them in order to comprehend the kind of urbanization that is taking

place. The problem of definition here is really complex - much more complex than the casual observer might think. We do know something about them. We know that they are predominantly in the young adult ages. We know that they tend to be mostly single, or if husbands, come to the city alone at first in the hopes of bringing their wife and children later. These are the things with which we are familiar; but there are more things we do not know than we do know. We do not know what effect distance from the city has on migration. We have practically no data on this. We do not know how many rural migrants actually come and at what rates, and whether there are seasonal variations that will recur over a long period of time. We also do not know how long they stay. Philip Mayer of Rhodes University raises the question "Do we have to wait until the rural migrant dies before we know whether or not he has become a city dweller?" We do know that rural migrants will almost always come ill-equipped to fit into the urban labour force at any level higher than that of servant or manual labour. They are likely to possess no skills, no training, no knowledge of the channels to improvement. Not only do they come ill-equipped in those particular respects, but even small things such as the pace of rural life have been different from that of urban life, thus affecting the ways in which they respond to the new environment. The rural man who has come to the city, being used to sharing a path or a roadway with slow-moving animals, suddenly has to learn that he must jump fast when the horns blow or he will be dead. The general manana psychology and philosophy of rural areas is inapplicable in the city, where a pecuniary economy rules to decide whether or not one shall eat.

The whole social framework in which rural persons are both known and charged with performance expectations, is not likely to be operating in the cities where the independence-seeking migrant has to deal with strangers, where the roles are not clear, the attitudes not known or hard to determine, hence very little predictability. The necessity to convert from primary to secondary, from personal to monetary types of relationship impinges u-

pon the individual when he comes to the city. By definition he
is unlikely to have much in the way of resources, especially fi-
nancial, to carry him over the rough spots, so he is highly vul-
nerable to the circumstances that confront him. He faces a real
dilemma if he wishes to escape his rural origins, because if he
does not affiliate with earlier migrating persons he knows as fri-
ends who came to the city, he can not share in their food, work
opportunities, and sense of security he may get from them. If he
does affiliate, he loses the freedom he has been seeking; the
long arm of the village and the tribe still rules his life. He
faces a world of contrasts in people, ranging from naive "encap-
sulated villagers", as they have been called by Philip Mayer, to
persons who are ultra-sophisticated cosmopolitans. He is easily
victimized by the more urbanized. He is highly vulnerable; the
compulsion to conform and assimilate weakens his resistance. He
can command only the least skillful job, so he is highly depen-
dent on the labour hirers. He is not acquainted with the ways to
get help, food and other public assistance. It is surprising,
really, that people can urbanize at all under these circumstances
since they have to substitute practically a completely new way of
life for the one with which they are familiar.

It is important to pause here to consider a side feature
which I think is going to be more important in the future than it
is at the present time. As is evident, the increase in urbaniza-
tion comes primarily from the countryside, so the analysis of ur-
banization must include study of changes in the country. For ex-
ample, what is the impact of this urbanization on the rural area
that has been left behind by the migrant? Among other things,
the rural area's age groups that are most productive are the ones
who are being siphoned off to the cities. This not only affects
the rural labour force but also affects the supply of potential
leaders who would otherwise be there but have gone off to the city.
The disruptions of culture, the split loyalties that result by
their leaving the countryside, the dependency of the separated
family, the tendency to get second best in the national economy -

the "squeaking wheel" urban area seems always to get the first investments - all have a negative and disruptive effect on rural areas. The real surprise under these circumstances is that the countryside has anything left to depend upon; the real effects of urbanization on the countryside have yet to be calculated.

Returning to the central argument of this discussion, it is clear that this urbanization is not a simple process. Furthermore, it is impossible to view urban growth in rapidly developing countries entirely objectively because it has a direct and measureable, as well as indirect and immeasureable, impact on those who are already there, those who have been city people for a long time. It places a strain on community facilities of all kinds, most of which tend to be inadequate to this task. It affects labour force characteristics; it affects the food supply; it increases welfare problems, housing, policing, and work loads on social and welfare operations.

This kind of urbanization is complicated by never knowing what is going to happen. Studies of urbanization in the Middle East, South East Asia, and India, for example, almost invariably call attention to unpredictable factors that make it difficult to plan ahead. For example, in most such areas, urbanization and industrialization have started relatively precipitously. Most underdeveloped countries and their cities are really caught unprepared for what hits them. The unpredictability of change is a common phenomenon. By fiat, overnight, the whole urban picture may be modified as a result of shifting national policy, or decisions made in distant countries. The actions of a parliament somewhere else in the world may affect a country's foreign aid, the formulation of development plans, and hence the urban growth rate. The resolution of some difficulty, such as the split between India and Pakistan, may suddenly dump hundreds of thousands of refugees on cities that are almost totally unprepared to cope with this kind of thing. Actions taken to install new communications schemes may have far reaching effects. For example, the pushing through of a railroad to Kano resulted in turning that

city's orientation from desert to sea.

Even rates of changes are unpredictable and quite different from those in the West. Perhaps even some of the usual stages of urbanization are by-passed. In the growth of the city of Delhi and the Delhi urban area, for instance, skipping the street-car stage in the city's growth had wide ramifications. Most Western cities went through this development stage; it was a very important one because it tended to keep the urban area compact. Delhi moved quickly from the foot travel transportation stage to travel by automobile, truck and bus, with a quite different affect on the structure of the city from what might have been the case if it had passed through the street-car stage.

Many severe adjustments take place and they have implications which are not yet clear. In the very large city, for example, urban growth may lead to a shift in the focus of city life from the traditional center - in the case of Egypt it was the mosque - to the Western-styled central business district. Nobody knows yet what that may eventually mean. These are only illustrations of some of the things that may take place in the urbanization process, but they do throw into relief certain major problems to which attention is now turned.

Problem number one, without doubt, is controlling migration from rural to urban areas. The difficulty is that, except for the generally unacceptable device of freezing existing residence patterns, no one knows any really satisfactory way to do anything about it. Migration resulting in urbanization appears impossible to control. Laws passed ever since the days when London had a few thousand inhabitants have failed to restrict it to that size. One hopeful, but partial, step may be the gradual strengthening of alternatives to city-ward migration, namely, the improvement of employment opportunities and living amenities in village and rural areas. Such efforts might reduce movement to cities but it is unlikely to solve the problems of existing urban areas in underdeveloped countries.

A second, and doubtless equally important, problem is providing enough jobs and adequate wages for those who do come to the urban areas. The ease of stating the problem is infinitely simpler than solving it.

A third problem is the necessity for a major breakthrough on housing, to cope with not only the already existing but also the expected housing deficit. There is no underdeveloped country which does not have a massive urban housing deficit. This is more crucial in some countries than in others, because in many places it happens that a great deal of living can take place out-of-doors and does not require an expensive dwelling unit. It is just a piece of good fortune that this rapid urbanization by and large is taking place in underdeveloped countries with climates and elevations where most people can survive, even in urban areas, with much less in the way of housing space and expense than urbanization elsewhere would ever have permitted. Mere survival is not enough, but where favourable climate can ameliorate the worst shortages there may be a long-run opportunity to cope effectively with the housing deficits. This is by no means, of course, the complete picture; there is a great deal of urbanization in China, South Africa, Latin and South America, and elsewhere in which the conditions do not permit urban living in such dwelling units. A related problem is the provision of suitable facilities to serve the housing. Primary emphasis must be placed on sewerage systems, water, schools, and recreation areas.

Another problem is rationalizing the internal structure of the city to make it a viable unit. Most of the urban areas now growing in rapidly developing countries present a difficult environment, a legacy of haphazard development, haphazard uses and haphazard circulation systems. For example, the frequent long-distance separation of worker's housing from centers of employment, resulting in lost time, lost energy and expensive journeys to work, is characteristic of most of these urban areas.

Somehow or other, and this is the big challenge, the urban

planner has to compensate for the consequences of this past growth.
Some compromises on ideal standards may be necessary. One of the
biggest problems in trying to work out a master plan for the Delhi
area was in trying to show not how you can build houses at 15
dwelling units per acre, but how you can build houses at 200 dwell-
ing units per acre and still make them attractive. In every city,
no matter how underdeveloped a country it happens to be in, there
is going to be some investment in sewers, some investment in streets,
and some investment in other kinds of public services. The import-
ant thing in planning under these circumstances of limited resources
is to see to it that these investments become additive, rather than
discrete, pieces here and there. The whole must be made to equal
more than the sum of its parts.

A fifth problem is that of finance, providing some suitable
means of paying for these miracles that have to take place. Human
ingenuity must develop new devices - perhaps national in scope - to
meet the costs of urban development under these circumstances. For
example, new departures in metropolitan and regional administrative
arrangements must be invented to make possible the sharing of econ-
omic base.

Government is a sixth locus of urbanization problems. In
many rapidly developing countries there are two handicaps: rela-
tively small staffs, most of whom are not at a professional level
in either training or experience, and, limited financial resources.
More often than not such handicaps force governments to operate at
a deficit position; they are always behind the demand for service
and facilities, and so are tempted to resort to "tourniquet" or
make-do solutions, which tend to cost more than the long-run type.

This by no means exhausts the problems list in urbaniza-
tion among developing countries. The main things that distinguish
them from those of Euro-American urban areas are their number and
their very high visibility in the urban areas of rapidly developing
countries.

Shot through all these observations, lurking behind every

increment of urban growth in rapidly developing countries, is the
question: is this over-urbanization? It would be difficult to
raise a more puzzling question. Many economists and other social
scientists are struggling with this in a much more sophisticated
way than can be undertaken here in the space that remains. The
question, of course, as in the case of defining underdeveloped
countries, is how to determine what is over-urbanization. What
is the test to apply? Does over-urbanization occur when there is
too great a differential between the numbers urban and the capac-
ities of cities to provide decent living and good jobs? Does it
occur when there is more urbanization than is supportable by pro-
ductivity in the agricultural and industrial sectors? The ques-
tion cannot be resolved here but it has to be raised for serious
consideration. One must also reserve, for consideration elsewhere,
the question as to what might or could in fact be done about over-
urbanization. Just because it appears to be a fait accompli does
not necessarily imply that it must forever remain out of control.

This is a sober review of urbanization in rapidly devel-
oping countries. It is desirable, therefore, to contemplate what
kinds of things we can expect in the future, judging from past and
present experience. We do know that this inexorable trend towards
urbanization is likely to continue; the major differences in the
future will be the rate at which it happens and the success in
dealing with inherent problems associated with such urban growth.
It is imperative to develop techniques for handling the transition
from rural to urban society in the best interests of the people -
psychologically, healthwise and otherwise. It is urgently required
to provide some means of employment; to arrange financial resour-
ces to carry the cost of providing better housing, utilities, and
services; to provide more and better trained personnel to man the
above operations; to create devices to increase at one and the
same time both the attractiveness of rural areas and their capaci-
ty for providing surplus food and provisions, not just people, to
the urban areas.

The unique thing about cities expanding and proliferating

in rapidly developing countries is that they are in a position,
<u>if they will</u>, to profit by all the mistakes, as well as the suc-
cesses, of earlier centuries of urbanization elsewhere.

A group of thoughtful people recently spent a consider-
able amount of time trying to assess the scope and the importance
of this problem. They came to this conclusion: "The crisis in
human settlement may soon outstrip even disease and famine as the
greatest risk - short of war - facing the human species." Since
urbanization appears to be here to stay, one of the great challen-
ges of our <u>time</u> <u>and</u> the future will be: Can cities be made to
meet the demands placed upon them, to provide a good life for their
inhabitants? This challenge is not as glamorous as space explora-
tion, perhaps, but it is a great deal more meaningful to the men,
women and children who will live in urban areas in increasing num-
bers.

CHAPTER   IV

RESEARCH AND DATA REQUIREMENTS FOR URBAN
COMPREHENSIVE MASTER PLANNING IN
RAPIDLY DEVELOPING COUNTRIES*

Billions of foreign aid funds are being made available
to the world's rapidly developing countries. Millions more are
being provided by foundations and governments for research on the
economy, technological development, and rural improvement of these
countries. But, relatively speaking, hardly one cent is devoted
to research on the cities of these countries.

Yet history has shown that urban areas are the theatres,
not only of power, but also of that basic economic and social de-
velopment prerequisite to national growth.

The assumption seems to be that governing, social change,
and industrialization take place independently of any context or
setting. Rapidly developing countries themselves have been late
to "discover" their cities, in some cases, for example, only after
crises incidental to the in-migration of refugees in large numbers
has accentuated the growth quietly taking place as a result of
rural-urban movement. But the evidence is clear that massive ur-
banization is taking place.[1] Gradually - and hopefully not too
late - some attention is being given to the growth problems of
these urban areas, and the necessity for comprehensive master plan-
ning for both the correction of the consequences of past growth
and the probable changes in the future.

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*   See footnote 2.

1.   See Homer Hoyt, World Urbanization: Expanding Population in
     a Shrinking World, (Washington, D.C.: Urban Land Institute,
     April 1962), Technical Bulletin 43; and International Urban
     Research, University of California, The World's Metropolitan
     Areas (Berkeley, California: University of California Press,
     1959).

The situation frequently confronting an urban planner in a rapidly developing country is that, after a long period of doing nothing, a plan is required to be finished, and action taken, at the earliest possible moment! Unfortunately the matters crying for emergency decision and action are precisely those which most "need" careful study prior to action. But those applying pressures for immediate completion of a plan in a quite inadequate time period are often those who least appreciate the fact that the sound research prerequisite to effective planning takes time.

RESEARCH REQUIRED

Research for urban planning is different from ordinary research in a very important respect: it must be able not only to define the problem, make the studies involved, and analyze the findings in an over-all urban context. It must also determine the implications, vis-a-vis policy and action, of the research that has been undertaken. And, not so incidentally, the foundation research for intelligent planning must also be reported in such a way as to make sense to the layman administrator responsible for taking the recommended action.

This paper[2] is devoted to a consideration of some of the basic social science and other research requisites for the preparation of comprehensive master plans, indicating incidentally various

2. These observations and recommendations are based heavily on first, the author's on-site study of major cities in the Near East, India, and South-East Asia, and second, on fifteen months experience in 1957-1958 while co-ordinator of a Ford Foundation Consulting Team of seven persons assisting in the preparation of the Delhi (India) Regional Master Plan. The study of Delhi was supplemented by considerable first hand and documentary analysis of other large Indian urban areas.

    Some of the ideas incorporated here were discussed first in a paper before the Association for Asian Studies at Boston, April 3, 1962, abstracted in Journal of Asian Studies 21:623 (August 1962). A revised part of that paper will appear in a forthcoming issue of Annals of the Association of American Geographers.

    This paper has been prepared in connection with the author's continuing research centering on a "Comparative Analysis of the Structure and Growth of Large Urban Areas."

data and methodological problems that are encountered, particular-
ly in rapidly developing countries.

At this point it is useful to note the meaning of "com-
prehensive master plan" as applied to urban areas. Even in the
absence of planning, a considerable amount of looking ahead to the
future and deciding upon ways of achieving objectives takes place.
More often than not, one department head in an urban administra-
tion pursues this course quite independently of all other depart-
ment heads, implicitly - if not explicitly - assuming that if all
goes well with his plans there will be no severe problems elsewhere.
The limitations of this approach to handling the problems of urban
growth are too obvious to require repetition. The results are of-
ten catastrophic. In comprehensive master planning, on the other
hand, the whole - not just the parts - is under review. According-
ly, all aspects of urban development from land use to fiscal pro-
gramming and capital budgeting, and including the social organiza-
tion of the urban area, must be brought into effective balance.
It is obvious that such planning is more easily said than done -
else it would be more common. In the long, as well as the short,
run it is comprehensive master planning that is required to cope
with urban development.

The preparation of a comprehensive master plan for an ur-
ban area is therefore a large undertaking and must of necessity
be based upon very careful research. It is essential to know and
understand the significance of not only the physical characteris-
tics of the urban area - in terms of form and structure, distribu-
tion of land use, etc. - but also the social system of the people
who occupy the area, not to mention the context of the urban area
in its over-all setting of the region and the nation. There is no
such thing as short-cut comprehensive master planning.

This paper suggests selected, but representative, types
of studies that need to be undertaken as part of the indispensible

research to the master planning process.[3]   Some clues as to the
range and types of urban research necessary may be gained from an
examination of a typical outline for such a plan. A 70 page de-
tailed outline used in preparing for the comprehensive master plan
of the Delhi-New Delhi (India) metropolitan area will serve as an
example.

Although they are similar to standard American usage, for
purposes of orientation it may be helpful to list the chapter
titles: Origin and Growth, Population, Economic Base, Land and
Buildings, Commerce and Services, Industry, Housing and Neighbor-
hood Facilities, Slum Clearance and Redevelopment, Transportation,
Utilities and Services, Education, Open Space, Recreation, Culture,
Fiscal Planning, Planning Administration, Governmental Structures,
and Civic Design in Architecture.

Space limitations preclude detailed examination of each
subject embraced by these titles. Selected subjects are therefore
examined to illustrate, particularly for rapidly developing coun-
tries, data and studies necessary for the preparation of urban com-
prehensive master plans that become the basis for policy decisions
and action programs. Although examples are drawn mainly from ex-
perience in India, they are representative of similar situations
throughout the world.

Origin and Growth of Urban Area. Analysis of the stages
in the development and growth of the metropolitan area is of par-
ticular interest to human ecologists, urban geographers, and urban
sociologists. This involves a detailed study of each stage of

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3.   Naturally the subjects of special interest to the social
     scientist derive from his interest in urban society per se,
     in the organizations that are involved in undertaking the
     planning process, and the relationships among the staff,
     consultants, and the administrative officials. The fields
     of urban sociology, human ecology, political science, and
     urban geography are among those having very important parts
     to play in the analysis of urban areas for planning purposes.

growth as the site was successively changed, the limits of built-
up areas as they shifted from time to time, and the patterns and
rates of growth of the urban area. The various layouts of differ-
ent parts[4] of the city (Old City, Civil Lines, the Cantonments,
etc.) should be analysed with reference to the distribution of land
use and population. Policy and planning implications of these stu-
dies and interrelationships with the social organization have to be
determined.

Population. Analysis of the historical development of the
population of the urban area in the context of national and region-
al population patterns is essential. Urban and rural relationships
should be indicated very clearly. Distribution of population by
age and sex, income, ethnic grouping, local versus immigrant, occu-
pational differences, rural-urban, density, daytime versus night-
time, and relationship of population to work centers and means of
transportation must be thoroughly studied.

Equally crucial is liberal cross-analysis to include type
of housing area, condition of housing, its age, types of community
service, and inter-relationship between the housing pattern and the
social organization of the individuals occupying the housing. Pop-
ulation projections have to be undertaken for various alternatives
making assumptions as to the type of social organization, the de-
gree of encouragement of immigration, special factors such as caste,
and similar matters.

Economic Base. Although in practice an economist would
have major responsibility for such research, it is nevertheless

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4. Briefly defined, the "Old City" is the indigenous core, gen-
erally surrounded by walls in various states of repair, plus
the adjoining overspill and haphazardly developed area.
"Civil Lines" refers to much more spacious, primarily resid-
ential, areas built by colonial administrations for their
staffs; they were generally located outside the Old City,
frequently with an intermediate buffer space. "Cantonments"
are military reservations, commonly of very large area, used
for housing military personnel, conducting manouvers, etc.
For details see footnote (2), article by Breese.

essential to both the economist and the administrator that the economic base analysis take into account the social organization of the urban area as it shifts with changes in occupational patterns, for example, as it is modified by changes in the functional relationships among various sectors in the urban economy.

An understanding of the present structure of the economy, together with a summary of trends, will shed considerable light on the future of the urban area. This is important in connection with the region's ability to support projected population levels. The potential of the urban area as an attraction for migrants from the rural areas has to be calculated. Knowledge of the economic base provides a valuable indicator to the kinds of social and political organizations necessary to keep the urban economy in motion and healthy.

Land and Buildings. Particularly careful examination must be made of the relationships between land and buildings, especially in the old parts of Indian metropolitan areas. Their high mixture of land use reflects the economic and social organization of the city life, the various other systems related to it, and the problems of re-planning insofar as they will involve changes now noticeable and forthcoming.

Commerce and Industry. The complex of commerce, service and industrial employment opportunities in urban areas is of interest to the social scientist from many points of view: e.g., the complex changes that take place in a rapidly developing economy, occupational shifts and the problem of recruitment into various occupations - especially recruitment of individuals coming from rural areas where their experience was limited to agricultural work. The ecological, income, size, organized-unorganized, and various other dimensions of employment furnish a fruitful field for social research and are directly relevant to urban planning.

Commercial activity is of equal importance in an Indian urban area because of the differences from Western countries in commercial practice, the relationship of retail outlets to distri-

bution of population, the relationships among different types of retail outlets and their implications for urban planning.

Industrial activity is of increasing significance in Indian urban areas. Employment pattern trends, differences in occupational breakdowns related to these trends, and linkages between industry and social organization of the area are crucial components in any planning program.

Housing and Neighborhood. The relationships among characteristics of housing, family structure, and social organization of the urban area must be fully understood in any comprehensive master planning. This is particularly true in cities facing a tremendous increase in population by migration from outside. Congestion has always been intense in Old City sections of Indian urban areas. In addition, the prevailing extended family system, and the concurrent obligation of members of extended families to offer hospitality to migrant relatives from rural areas, makes the crowding problem become more and more acute. Research leading to an understanding of living and other adjustments required from these circumstances is directly relevant to the formulation of proposals for providing housing facilities in the future. The low incomes of the ordinary Indian family and the inability to pay more than slum rentals for housing still further complicates planning.

An entirely different type of housing situation is presented by the virtually universal bustis[5] that spring up around construction projects to house workers engaged by the builder and at the periphery of urban areas.

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5. Bustis – or Bustees – are small, temporary, and usually flimsy huts built unauthorized on public or private lands by squatters. If made of poor materials – as is generally the case – they are Kachcha construction and lack all amenities including windows. Pukka construction is from good materials well put together; it is rare in busti areas. Sanitary facilities, if they exist at all, are primitive; access to safe water supply is usually some distance away. Various names are used for these structures: jhuggies, ahata (Cawnpore), favella (in South America), etc.

The construction workers are generally recent migrants who have no permanent place to stay. The enormity of this problem of squatter residence is indicated by the fact that no matter when a _busti_ is demolished, another, or two others, seem to take its place. All too little is known about these areas, their inhabitants, and the host of related factors relevant to making plans for their removal and re-housing.

Knowing the relationships among status systems, caste, and housing is also necessary in preparing plans for meeting the housing deficit of Indian urban areas. Similarly the implications of various density levels in housing are relevant to an understanding of both family and neighborhood organization. Neighborhood facilities and services also have to be considered in connection with such plans. Analyses of value systems, traditional and emerging political practice, economic difficulties and similar factors affecting decisions as to which group shall be served first, to what degree, and where, are important undertakings for both social scientists and urban planners. Even the design of individual structures and their combination in project unit layout must be studied to descern implications for urban social organization.

In Western cities, slum clearance and redevelopment make an impact upon social organization, the individual, and the family unit when it becomes necessary to displace present occupants of slum areas while new quarters are being constructed. Transient camps for the intervening period must be carefully planned to preserve the social organization of the slum residents.

Transportation. The traditionally high mixture of industry, commerce, business, and residential areas in the Old Cities of Indian urban areas has precluded the necessity for much transportation of individuals between place of work and place of residence. In many cases, the place of work may be the same as the place of residence. Increasingly, however, the gradual expansion of the city and the development of new sources of employment in other parts of the city create the need to keep together the fabric of the urban areas by improved and inexpensive transportation

facilities. No comprehensive master plan can fail to give great weight to the movement of people and goods among the functional areas throughout the city.

Utilities, Education and Recreation Facilities. An interesting and significant opportunity to study the value systems and the priorities assigned to various needs is offered by the Indian city, where only a limited amount of resources can be allocated for such facilities. When, where and for whom shall such facilities be provided? The planner looks to the social scientist for answers.

Planning Administration. There is no tradition of widespread public participation in governmental processes in large urban areas of most developing countries. Given no signs that this will change very rapidly, one question is how the individual in a large urban area, sometimes attached to a special interest group that can represent him and sometimes not, can make his needs known in the emerging urban metropolis. These problems of public participation and similar matters are the concern of social scientists interested in organizational behavior, responsibility, and value systems. The field is ripe for further research on the planning implications of these subjects.

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This selected listing of types of research that need to be undertaken in connection with the preparation of comprehensive master plans in rapidly developing countries is intended to be illustrative only. In no case have the dimensions of the particular studies been spelled out, but their components should be readily apparent to the social scientist.

Still unanswered is the major question of the transferability of urban growth and structure theory, as well as the findings of urban studies undertaken elsewhere in the world, for application to the situation in rapidly developing countries. The outsider to the Indian situation, for example, early recognises that

most of the present theories regarding urban growth and function-
al relationships have developed within the context of Western ur-
ban areas. The all too few studies of Near and Far Eastern cit-
ies present somewhat similar limitations, many of the studies
having dealt with what properly may be considered unique cases.
Difference between Western and Eastern urban areas being what they
are, one cannot assume with confidence that the findings of urban
research in the West will be carbon copies of the findings of re-
search on Indian urban areas.

The same can with equal certainty be said about many ur-
ban research techniques.

In the face, on the one hand, of these limitations of
data and transferability of knowledge from other parts of the wor-
ld, and on the other hand the necessity of arriving at proposals
that will become the basis for policy and action, the researcher
working on comprehensive urban planning bears a serious responsib-
ility.

Data Needs

Data problems encountered in urban research in rapidly
developing countries, e.g. India, are almost overwhelming. One
frequently finds that even the most basic tools are lacking: use-
able maps, for instance, are generally very difficult to secure.
Where they do exist, they tend to be out of date and are generally
not of the right size or scale.

Existing data resources always seem to present difficul-
ties. They are generally too few, inaccurate, scattered in cover-
age, and hopelessly out of date. Tabulation is generally by areas
too large to be of any value for research purposes. Even where
data exist they are commonly not available over long periods of
time so trends cannot be determined. Furthermore, they frequent-
ly are non-comparable from period to period, having changing def-
initions and areal referents. Record-keeping systems are apt to
be haphazard or otherwise useless. The time lag in availability

of census data, for example, is very distressing; in a rapidly
urbanizing area circumstances are likely to have changed by the
time data are published. The lack of efficient clearing houses
for different types of data promotes suspicion that there are po-
tentially available a great deal more data and pertinent studies
than it is presently possible to locate and use. This is particu-
larly frustrating in situations - the rule rather than the excep-
tion - where time is at a premium.

There are other, all too familiar problems involved in
undertaking new research. The "close to the chest" attitude of
people who already have data but do not want to share them may
seriously interfere with completing research basic to the prepara-
tion of a master plan.   Sometimes there is suspicion as to the
motives of the researchers. More often than not, there are too
few staff members and too little time to complete research on
some of the major aspects of technical problems related to plann-
ing problems. In such respects developing countries are obvious-
ly not unique.

One of the most frustrating aspects of securing data for
urban research in rapidly developing areas is the fast and rela-
tively unpredictable march of events. The situation may virtually
change overnight, thus altering the assumptions that have to be
made in any planning process. The frustration of making analyses
based on already old data is compounded in the face of already
changing circumstances. In urban planning under these circumst-
ances, what has gone before is not necessarily the prelude to what
is to come.

One additional consideration to be kept in mind is that
the new changes associated with rapid urbanization in India have
been in motion for such a short time that it may still be too ear-
ly to calculate the direction of trends, so that the planner in
effect faces an open-ended potential. This is a particularly elu-
sive problem with reference to the impact of urban changes upon
such well-entrenched customs as the extended family system and the

caste system.

Even the future larger patterns of urban society may be in such a state of flux that one can scarcely know what targets are realistic. The future is apt to be quite different from the past, rather than like it. For example, the increasing signs of an emerging middle class, the possibility of major changes in the joint family system - to name only a few - have rather obvious implications for designing and planning future urban areas. Securing data on these matters is no mean undertaking.

If further urban research in connection with the preparation of comprehensive master plans is to be productive, the availability, reliability, and comparability of data will have to be greatly improved. Availability of data varies from place to place, of course, but in India, for example, data are virtually non-existent when compared with the relatively great amount on American cities. The possibility of useful data becoming available will doubtless increase in rough proportion to the size of the city, if for no other reason than that these large cities will have such great problems as to demand the collection of relevant data. The most useful research on urban areas in developing countries is therefore most likely to be limited to very large cities. Other refinements will increasingly become necessary to provide data in series, thus offering an opportunity for observation of changes that take place. More extensive cross-tabulation of data will have to be encouraged. Furthermore, where pertinent data exist or are to be produced, they must be protected from being placed in a restricted category and therefore inaccessible.

The reliability of data is perhaps the most disturbing matter of all. It is difficult, and sometimes well nigh impossible, to ascertain the accuracy of data, the circumstances under which the data were collected, the purpose for which they were gathered, the degree of coverage of the population, the sampling level, the universe involved, etc. Even the definition of terms is frequently either missing or confusing. Techniques for preventing these inadequacies are now common knowledge and must be

applied more extensively.

Even though research in connection with comprehensive master planning for a particular urban area may be extremely valuable, its value will be improved insofar as it is possible to check these findings with those of research from other urban areas. Therefore the problem of comparability of data is paramount. Comparability of data internal to a particular Indian city is generally not too difficult to secure since the likelihood is that only one agency is responsible for their collection and, therefore, controls both comparability problems and the data manipulation process. Comparability among Indian urban areas is at present extremely difficult and generally calls for the making of major assumptions which for lack of better knowledge have to be accepted even though they may rest on very shaky grounds. In all candor, since some of these same difficulties are characteristic of our own data collection for cities in Europe and America, perhaps it is inappropriate to level too much criticism.

The importance of improvements in census collection of data cannot be overestimated. This step would be of great benefit to the country itself, as well as to the persons directly responsible for the preparation of comprehensive master plans. This is not the place to recapitulate the procedures to follow in improving the census operation, but there are hopeful signs that in India, for example, considerable progress will be made in this direction. It might also be mentioned in passing, that certain international efforts to arrive at comparability of definition and procedure are also reassuring. The transferability of research findings might become more nearly practicable if the data have been collected on a comparable basis.

Any research on any urban areas should be undertaken on a comparable basis so that the findings, particularly within a country, may become transferable from one city to another of similar size and type. Similarly, priority might well be assigned to those studies that provide a base line from which analysis of trends can

proceed. One of the most encouraging developments in this direc-
tion is the series of Government of India Research Programmes
Committee studies of 22 major Indian cities.

A further research tool is the preparation and collection
of suitable large-scale maps. We have become accustomed to expect
reasonably good base map resources in the case of large urban
areas in Europe and the United States. An early discovery of per-
sons working in the Indian situation, however, is that satisfac-
tory large-scale maps are extremely difficult to procure, and some-
times restricted for military use only. Even maps of cities at
their present state of development are commonly unsatisfactory for
planning purposes. The lack of maps that show the growth of built-
up areas is even more of a handicap to the person studying past
and probable trends of development. Contour maps are often in
similar short supply: if available, they would reduce greatly the
time necessary for the preparation of comprehensive master plans.[6]
The same observation applies in connection with aerial photographs.
Granted that such aerial photographs of urban areas are expensive,
it has been demonstrated that they tend to save more than their
cost, partly because of their multi-purpose use.

A program for the systematic and repeated preparation of
land use surveys is a first priority for preparation of comprehen-
sive master plans. Virtually none exist in India, though the first
one, for the Delhi area, was recently completed.

These circumstances have led students of Indian urban
planning problems - particularly the Ford Foundation team that has
worked with the Indian Government on the preparation of the com-
prehensive master plan for the Delhi-New Delhi area - to undertake
the preparation of a "manual" indicating the most highly needed
types of urban research and the ways in which they can be completed
under limited data and financial conditions. The manual gives

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6.   In India, and occasionally for specific cities elsewhere,
cities are covered at 1" = 1 mile and the Survey of India
has large-scale drawings. Unfortunately, however, they are
frequently out of date.

highest priority to the following types of research undertakings:
(1) a sample survey to cover population characteristics, doubt-
less by the National Sample Survey organization; (2) a land re-
connaissance survey designed to give a preliminary view of the
distribution of various types of land use in functional areas,
this being adequate to proceed until the more detailed survey,
mentioned below, can be completed; (3) a lot-by-lot land use
survey, consisting of a detailed inventory of topography, geology,
climate, and land utilization of each lot parcel in the entire ur-
ban area. Such a survey provides the data from which one can make
a preliminary detailed analysis of the existing situation, get a
picture of past growth patterns, and a fairly clear understanding
of the relationships among functional areas in various parts of
the city; (4) sample survey of households, to discover in consid-
erable detail general characteristics of household members, par-
ticularly the occupational characteristics and family organization
data not otherwise obtainable but crucial to comprehensive plann-
ing for meeting the housing deficit, organizing the location of
work places with reference to places of residence, etc.; (5)
business, commercial and industrial survey: this type of survey
would go directly to a representative collection of units involved
in business, commerce, and industry for the types of data necess-
ary to an understanding of the economic base, the occupational
pattern, the relationship of place of work to place of residence
etc.; (6) transportation study - origin-destination and cordon
count, as well as, if possible, interview data.

Perhaps the major contribution of the Ford Foundation re-
search planning monograph is the delineation of research techni-
ques under conditions marked by serious limitations of data. The
necessity for short-cuts in research - both from the point of
view of limitations of data and the shortage of time available -
is extremely significant for the forthcoming necessity of prepar-
ing master plans for India's major cities. The shortage of pro-
fessionally trained urban planners and professionally trained re-
search personnel able to undertake research significant to the

solution of urban planning problems made such a manual mandatory.[7]

From both a short-range and a long-range point of view, however, a comprehensive <u>comparative</u> analysis of the structure and growth of large urban areas is needed, and at the earliest poss-ible moment.

This paper has dealt with certain proposals for urban re-search in rapidly developing countries and the kinds of data im-provements and research technique developments that will be requir-ed. Only after such studies, improvements and developments will planners be in a position to state with assurance what is needed to be known for comprehensive master planning of such urban areas. Only then will it be possible effectively to cope with development problems in their urban theatres of change.

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7. A similar manual has been prepared by Kenneth Watts, <u>How to Make an Urban Planning Survey</u>, based on Djakarta, Indonesia (Bandung, Indonesia: Division of Regional and City Planning, Bandung Institute of Technology, February 1961), Series of Provisional Text No. 1, Paper, 87pp. Abstracted in <u>Ekistics</u>, 13:300-312 (May 1962).

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