



UNCONTROLLED URBAN SETTLEMENT : PROBLEMS AND POLICIES *

INTRODUCTION

FOR TENS OF MILLIONS of people in the world today urban settlement is the only hope of bettering a miserable lot. For many it is their only hope of survival. The United Nations has estimated that 200 million people will have moved into cities in Asia, Africa, and Latin America during the 1960s alone (5) and even more are being born within the cities, many as poor as the rural migrants. Hundreds of millions are living through experiences that radically alter their lives and that are revolutionizing two thirds of the world. The demographers have successfully raised the alarm and have called the world's attention to the facts of the population explosion and to the colossal scale of contemporary urbanization. Planners, too, have begun to recognize that an increasing proportion of urban settlement today is occurring "spontaneously" in totally unplanned ways, beyond the control of the authorities charged with the regulation of land uses and building construction. The marginal urban growth of today — the inner rings of tomorrow's cities — is largely caused by squatters and illegal developers in the rapidly urbanizing countries.¹ Over one third of the population of Mexico City, 1.5 million people, live in the *colonias proletarias* — known originally as *barrios paracaídas* or "parachutists' neighbourhoods"; nearly half of Ankara's population of 1.5 million in *geceköndü* districts — the squatter settlements whose name describes a house built over-night; the area of the *villes extra-coutumiers* of Leopoldville is greater than that of the city itself. Apart from a relatively abundant literature on the more general demographic and statistical aspects of the urbanization process, there is remarkably little information easily accessible to those working on these problems. A few books and several dozen articles apart, only official documents with a limited circulation and unpublished studies and reports are available. Owing to the limited data, the most that can be done, at present, is to formulate working hypotheses as a basis for a systematic evaluation of the areas concerned, and also to learn through the experience of Governments and others directly concerned. The hypotheses presented

in this paper are based more on first-hand observations, research into field reports and project evaluation studies than on deductions from rigorous academic investigation.

The first problem is one of definition. It is assumed that the problem has two elements which do not necessarily coincide: urban "uncontrol" and the "shantytown" environment in itself. There are millions of shacks that are neither built nor occupied by squatters and there are hundreds of thousands of squatters who do not live in shacks but in solidly built houses. (3) The squatter shantytowns — the really dense and slummy kind referred to as "provisional squatter settlements" — often have far more in common with the traditional downtown slumlord tenements than with the self-improving squatter settlement which is transforming itself into a soundly built neighbourhood. And the latter — "self-improving" settlements — often have far more in common with orthodox residential suburbs than they do with shantytowns. By "uncontrolled urban settlement" we mean urban settlement, whatever its duration or expectations may be, that takes place independently of the authorities charged with the "control" of local building and planning.²

THE PROCESSES OF UNCONTROLLED URBAN SETTLEMENTS

Uncontrolled urban settlement is a manifestation of normal urban growth processes under historically unprecedented conditions. It is not the existence of urban settlements which is the problem, but the fact that they are uncontrolled and that their forms are so often distorted.

The function and the social composition of most major cities throughout the urbanizing world have changed: they are no longer the residential neigh-

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¹ There is an important difference between three main demographic contexts: one, the slow-growing predominantly rural countries; two, the rapidly growing and rapidly urbanizing, and, three, the slow-growing predominantly urban countries. Uncontrolled settlement is most acute in the second category, as Lowdon Wingo has established for Latin America in "Some aspects of recent urbanization in Latin America" (mimeographed), 1966.

² In addition to the confusions that arise from those generally unrecognized facts there is the fact that a "squatter" (except in Australia) is commonly assumed to mean: a "person who settles on new especially public land without title; a person who takes unauthorized possession of unoccupied premises". This is the definition given in *The Concise Oxford Dictionary* (fifth edition, 1964). So, unless or until it is generally agreed and understood that squatting can also mean in the urban sense what it means in Australia and, until recently anyway, in North America, namely, a "person who gets right of pasturage from government on easy terms", the use of the term "squatter settlement" to define our field tends to carry with it a rather narrow legal connotation. This can obscure the issues by lumping together essentially dissimilar "provisional" and "incipient" squatter settlements and separating essentially similar "incipient squatter" and "incipient semi-squatter" or even fully legal settlements. We have, therefore, in spite of its awkwardness, substituted the phrase "uncontrolled urban settlement" for the more attractive "squatter settlement" with all the expressive contractions into "squatment" or the variation of "squatterdom" that Charles Abrams has given it.



bourhoods of the political and cultural *élite*. In Lima, for example, the middle-class and, especially, the lower-middle and lower-class voters now constitute the vast majority of the urban population — they are no longer merely the servants of an aristocracy. The city itself is no longer the cultural and social seat of a tiny urbane minority wielding secular and religious power but the refuge of the swollen popular masses whose only hope for continued survival and progress is in the urban melting-pot. A roof, of course, is the first thing that anyone who has not already got somewhere to sleep — such as the rural immigrant — will look for. Until enough capital is available for better housing, an increasing number must be housed in shacks or subdivided and sub-subdivided tenements. Such pressures are virtually unprecedented and their scale and the breadth of their distribution entirely so. The city, in the urbanizing world, is increasingly the refuge of large numbers of the poor and it is the poor who now determine a great part of its physical growth.

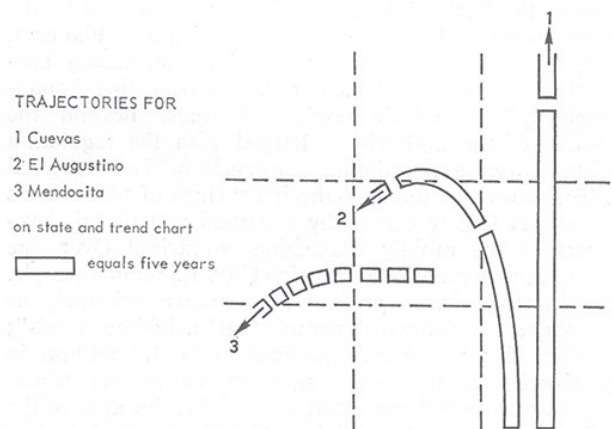
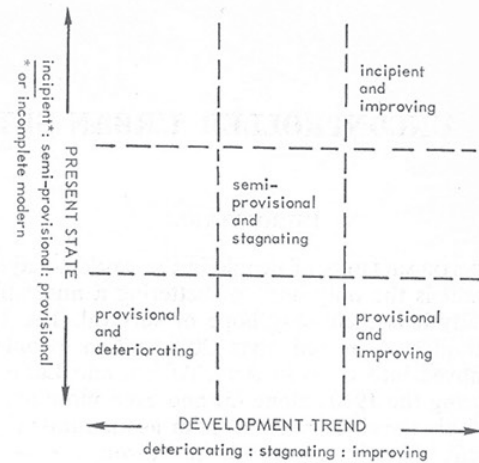
The circumstances in which the poor are erecting their provisional shacks and improvizing their houses are historically unprecedented — abnormal — even though the ways in which many of them build are entirely traditional. Because of this new and “abnormal” situation, existing institutional structures and traditional courses have proved inadequate for the increased demand. Some of the most important channels — the supply of land, for instance — have not merely failed to open up but have actually shrunk as the result of economically impractical regulations and building standards combined with land speculation. Thwarted and frustrated by barriers such as these, new settlers have established themselves wherever they could, and unscrupulous speculators have profited by the demand — so that the *forms* into which resultant settlements have been forced have frequently been badly distorted.

Squatter and other forms of uncontrolled urban settlement are not “social aberrations”³ but a perfectly natural and very often a surprisingly adequate response to the situation. The tragedy is not that settlements exist — which is inevitable — but that many are so much worse than they need have been.

As the illustrations show, and as many reports confirm, there is a great variety of types and qualities of uncontrolled urban settlement — bewildering to those who have been led to suppose that all fall into much the same category. As the diversity of settlement types forbids generalization, it is essential to have some common and meaningful categories for the purposes of comparison and analysis. A simple chart is made by correlating physical state with the direction of change. All structures and settlements must be in some observable state, whether very poor and provisional or as permanent and complete as modern construction allows. But — and especially when dealing with settlements in the rapidly urbanizing context — appearances at the lower end of

³ The only publication on sale to the general public in Peru on the *barriadas* is entitled *Barriadas Marginales: Una Aberración Social*.

Figure 1. Typification of settlements by state and trend



the scale can be quite misleading. Unless the direction of change is also known, it is difficult to assess the real value of a particular settlement. In their initial stages, all three settlements shown in the photographs would have looked much the same to the outside observer; each has demonstrated a very different development trajectory, however, placing each in a distinctly different category. By combining trend with present state, therefore, a much more useful framework is provided and one that will be used for the analyses that follow.

THE CHARACTERISTICS OF UNCONTROLLED URBAN SETTLEMENTS

The traditional pattern

Sjoberg, describing the findings at Ur, one of the earliest known cities, writes in *The Pre-Industrial City*:⁴

Houses were jumbled together, forming an irregular mass broken at intervals by open spaces in front of a temple or govern-

⁴ Gideon Sjoberg, *The Pre-Industrial City* (Glencoe, Illinois, The Free Press, 1960).



ment building. Streets were narrow, winding and unpaved and lacked adequate drainage. They became they chief repositories of refuse thrown from the houses. . .

and later in the same book:

The disadvantaged members of the city fan out toward the periphery, with the very poorest and the outcasts living in the suburbs, the farthest removed from the center. Houses toward the city's fringes are small, flimsily constructed, often one-room hovels into which whole families crowd. . . .

Except for the government buildings and temples, these descriptions fit any of thousands of poorer kinds of squatter settlements in sixteenth century London, nineteenth century New York, and today throughout the world.

There is however, at least one radical difference between the pre-twentieth century cities and the metropolitan areas from which many contemporary examples are drawn: most principal modern cities are many times larger than the largest cities before modern industrialization and present urbanization rates began. The very poor of Ur, of sixteenth century London or of nineteenth century

Manhattan even, had no difficulty in walking to their work places from their marginal settlements. But the very poor of Calcutta or Mexico City — with populations of six million — or of Delhi or Lima, with populations of around two million — cannot live on the periphery and work in the city centre.

Stages of settlement development

Although the information obtained on settlements throughout the urbanizing world (from over forty major cities and a dozen smaller ones) is fragmentary it supports the hypothesis of universal urban growth processes, rather than the notion of some marginal and passing peculiarity. The data indicate a correlation between the types and stages of uncontrolled settlement in a given region or city and the income levels of the population. With the partial exception of West and Central Africa — where urbanization has only recently begun — the lower the *per capita* income levels the greater the preponderance of the "provisional" levels of settlement. In areas with appreciably higher *per capita* income levels, the bulk

Figure II. Cuevas: incipient settlement



Progressive self-improvement — fired by hope, unhampered by built-in blight — has led to an evolving modern settlement

[continued



Figure II (continued)



1961 — Dense provisional encampment houses settlers while plans are being made for this site



1962 — Incipient settlement developing — school in allocated area

[continued



Figure II (continued)



1963 — New school, lining with settlement plan, replaces aborted attempts built without technical guidance

of the uncontrolled low-income settlement is in the “incipient” or “incomplete modern” category. There are, of course, important modifying variables such as government policy and the exercise of police power.

The available data do not permit generalizations as to the frequency and regional distribution of “provisional” settlements. It is fairly safe to assume, however, that most of the settlements which are established through organized invasion must pass through the phase rapidly if there is any effective police opposition. But an initial encampment, however primitive it may be, is not necessarily temporary; if it is the first stage of a future settlement, it may prove to be either a permanent one, a semi-permanent one or, indeed, provisional. Settlements at this stage of development show wide differences in the relative wealth of their inhabitants as well as in their locations and site potential. The *bustee* dwellers referred to in “Slums of Old Delhi”(27) are among the poorest. On the other hand, the original invaders and settlers of the Cuevas *barriada* appear to be of the average working-class level of Lima — by no means the poorest sector of the local population and with far higher living standards than the *bustee* dwellers. These socio-economic differences correlate with location, topography and

density. In settlements near the central business districts or industrial zones, density will tend to be very high — over 12,000 persons per hectare have been reported in Hong Kong. (16) “Safety in numbers” may ensure a degree of security of tenure or, at least, guarantee a degree of consideration for their plight by the political authorities. The facts available suggest that the “transient” settlements that manage to establish themselves become semi-permanent “provisional” settlements if the settlers have very low or unstable incomes (by local standards) or if they are located on land of high or potentially high value and of limited area. Successful squatter settlements established by relatively stable, urbanized wage-earners on land of low value tend rapidly to become “incipient” squatter settlements.

Incipient squatter settlements

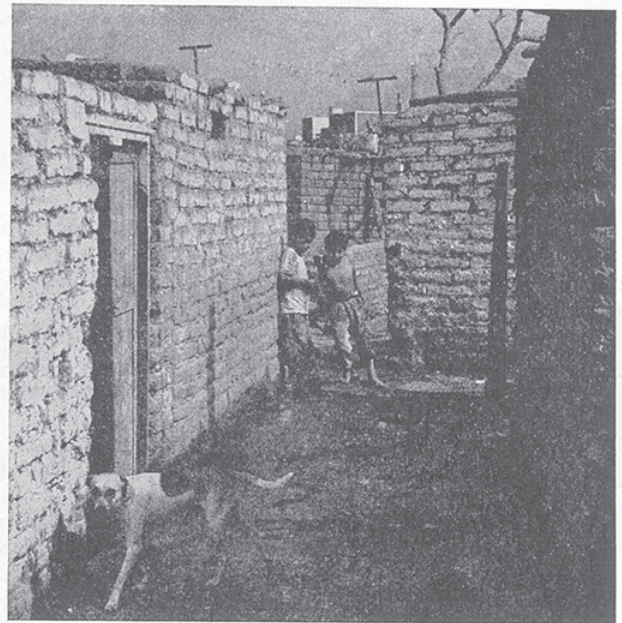
While we have abundant evidence of self-improving settlements throughout Latin America, North Africa and the eastern Mediterranean, very little has been obtained that shows their existence in the other developing regions. A number of modern standard houses are built in at least some of the Manila settlements (36) but most of them seem unlikely to progress very far



Figure III. El Augustino



Self-improvement efforts prove futile because the original settlement was too dense



Initial clustering has rapidly become dense, planless settlement

◀ Settlers unite to lay utilities — in vain, because of built-in blight



owing to the extremely high densities and apparently total lack of street alignments and open space. The Commissioner for Redevelopment reports a similar situation in Hong Kong. (17)

Self-improving incipient squatter settlements occur predominantly in the countries where urbanization is in full swing and where industrialization has made a significant start. The incipient squatter (and semi-squatter)⁵ settlements in Latin America, North Africa and the eastern Mediterranean have many characteristics in common. To a greater or less extent, most of these conflict with the traditional image of the squatter settlement. Only in the narrowest and most literal sense are the majority of these “incipiently modern” settlements slums. In many cases development is slow enough and conditions are bad enough to justify the label but in

⁵ See footnote to the present article.

many other cases—in that of the Cuevas settlement in Lima, for example—the word “slum” is no more apt than it would be if applied to any building works in progress. It is, after all, only the wealthy minority—outside the industrialized countries—who have ever been able to afford to finish a dwelling of relatively high standard *before* moving into it.

When topography and density permit, settlements tend to be orderly, which suggests that squatter organization is more frequent than appearances imply. Direct evidence for internal organization among squatter groups is scarce and even where it is reported, as among the Ankara *gecekondu* inhabitants (58) their ability to control physical development to provide material facilities appears to be very limited.

Although in the *villes extra-coutumiers* of Leopoldville, (45) many of the *colonias proletarias* of Mexico

Figure IV. Mendocita: clandestine settlement
Built-in blight has produced progressive degeneration internally and interrupted surrounding city development



1942 — Although settlement is outside urban fringe in agricultural land, it is threatened by the spread of the city (see bottom of photo)

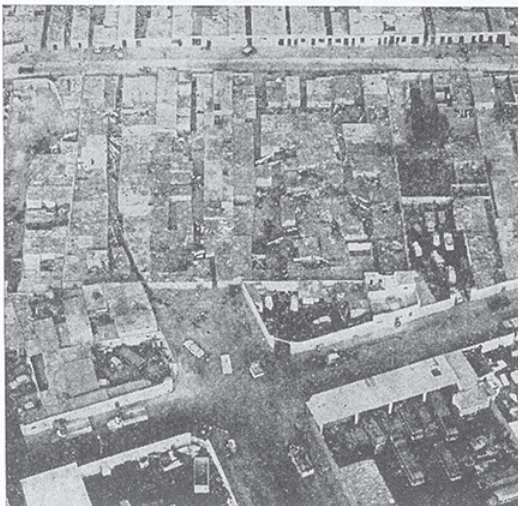
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Figure IV (continued)



◀ 1953 — Planned city growth engulfs clandestine settlement



1961 — Settlement and area surrounding it are blighted because it opposes rigid city plan





City, (83) the *barriadas* of Lima, Arequipa and other Peruvian cities and some of the *ranchos* of Venezuela, (107) where squatting has been organized, layouts are regular and at least some provision is made for public open space and community facilities. This not very surprising coincidence of topographical conditions and physical order supports the deduction that settler organization is more common than is often supposed.

Squatter settlement layouts indicating some degree of premeditated order also occur in Panama City (Panama), Buenaventura (Colombia), Buenos Aires (Argentina) and Fortaleza (Brazil) and there are, no doubt, "planned" settlements elsewhere. Many would assume that the squatters have little respect for planning since the land has been taken illegally and by force in the first place — they expect squatters would take land from one another, especially if, at any time, a plot is left unguarded. However, plans are respected to a surprising degree and the initial layout is, perhaps, more influential than is commonly supposed.

Sewell reports that in Ankara squatters take their "rights" so seriously that, when conflicts arise between claimants, they will often turn to government authorities in order to resolve them. The Ankara incident Sewell reports could well have occurred in a Peruvian *barriada*.

The man had "bought" building rights from another person who purported to own some land in the *gecekondu*. The "purchaser" had waited until a dark night, then had begun to build his house. At this point another claimant to the land appeared, a claimant supported by many neighbouring *gecekondu* settlers. A pitched battle ensued and the "purchaser" received a gash on his head with a shovel. Police located and arrested the swindler. The author subsequently visited the "purchaser" in the hospital and found him relating his adventures with gusto to visitors packed three deep around his bed. A few weeks later he built his house on another site. (58)

The eleven unplanned but nevertheless developing or already developed settlements for which information is available are all situated on marginal land which, through geological accident, happens to be centrally located. The four relatively well-planned squatter or semi-squatter settlements from different areas for which we have detailed information are all situated on more or less level marginal land of little commercial value at the peripheries of the cities. The only settlement of the incipient squatter category which does not fall into either of these groups is the *barriada bruja* Villa de los Reyes of Panama City. This settlement is peripheral and occupies land of poor quality which is flat and relatively extensive — the density is quite low. But, with the exception of two fairly well-aligned streets, it does not appear to have been planned. There was apparently no community organization until the government housing agency (the INVU) stepped in to provide technical assistance, which resulted in considerable improvements. The correlations observed between the geographic, administrative and physical planning characteristics of the developing incipient squatter settlements in central and peripheral locations are hardly surprising when one takes the local situation of the settlers themselves into consideration.

Semi-squatter settlements

In the urbanizing world, incomplete modern or incipient semi-squatter (or "semi-legal") settlements are often occupied by middle-income families. Relative to their socio-economic and cultural status the middle-income sector is often badly served for housing as a result of inflated land costs and interest rates. But, because of their standards and status, the middle classes are rarely tempted to take the direct action of the low-income squatter.

It is more usual for this middle-income group, when it cannot afford to build in accordance with all legal requirements, to build in developments that circumvent cost-inflating regulations, unnecessary from their point of view. It is common to find suburban developments where fair or good-quality dwellings are being built, even lived in, although they lack public utilities, paved roads and so on. More seriously, these developments are sometimes very badly laid out with quite inadequate lots. Partly because of the difficulties of deciding what is "squatting" and what is "clandestine" (but not squatting) and of knowing just where to draw the line between "clandestine", "customary" and "legal", it is even more difficult to obtain information on settlement areas in this stage than the more spectacular squatter and slum areas. To limit the field to "squatter" settlements in the strict sense, however, would effectively camouflage the processes which must be pin-pointed if we are to understand the structure of events well enough to predict them.

The world-wide view of "incomplete semi-squatter" settlement shows that its inhabitants are from an extremely wide range of social classes, occurring commonly in areas where the middle class is a very new one. With the exception of Leopoldville there is no information on suburban residential settlement by average low-income families that can be described as "advanced" in countries where the annual *per capita* income is around the \$100 level. But where incomes are appreciably higher — or where suburban building can be achieved exceptionally cheaply as in Peru — "working class" suburban development is quite common. Where income levels are very low, settlement of much the same kind may often be found but it will generally prove to be that of the middle class.

Provisional squatter settlements

Squatters are motivated basically by the need for minimum cost. The "provisional" settlements are the refuge of many of the unemployed or underemployed, who naturally tend to congregate as near as they can to sources of employment. Physical improvement to modern standards tends, therefore, to be incompatible with the *raison d'être* of the provisional settlement. Few are either intended to become permanent modern settlements or do, in fact, achieve anything approaching that status. The provisional squatter settlements are refuges of the urban poor. Not all provisional squatter settlers are poor, however. In Hong Kong, for example, there are instances of squatter settlement dwellers who prove to have saved for a modern house. (14) Where data



are available, income levels in the provisional settlements are shown to be consistently very low. A detailed analysis of income levels in eight squatter settlements of Manila in 1963 shows that no less than 85 per cent have incomes below subsistence level. (35) Settlement studies from Caracas (104) and the famous Rooiyard study in Johannesburg confirm that the settlers are from the least prepared urban groups and have the lowest income levels.

Exceptional provisional settlements may nevertheless develop into integrated parts of the city. The Plaka settlement in Athens, was probably a provisional squatter settlement some 130 years ago. It is now a delightful area where accommodation is sought by writers, artists and even architects. Desclotres and Reverdy point out the similarity between the *bidonvilles urbains* and the traditional *casbah* of Algiers (49) and the *gourbivilles* of Tunis, surveyed in detail by Sebag and others, (53-55) suggest that the same process is taking place in spite of the intensified pace and demands of modern city life. However, the great majority of provisional settlements existing today will be eradicated eventually if only because they are on land of potentially high value.

Although the traditional provisional squatter settlement model persists, it is no longer always situated on the periphery in the larger cities. The provisional squatter settlements in the sixteen major cities for which information is available are near centres of employment for unskilled or semi-skilled labour. If these centres are the central markets or around the central business districts, then provisional settlements will occur on marginal lands nearby — on hillsides or rocky outcrops, as in Lima, Rio de Janeiro, Ankara and Hong Kong; on marshes and areas liable to flooding or, even, out into the sea itself as in Santiago de Chile, Guayaquil, Karachi and Davao (Philippines); or filling up the interstices of the cities — unguarded and unused plots of private land, public land, verges, ravines, embankments and even bombed sites — as has occurred in Caracas, Mexico City, Algiers, Delhi and Manila. Where provisional settlements do occur on the periphery — as in Istanbul, Cairo and Paris — they are near peripherally located industrial areas.

It seems probable that the temporary provisional or transient settlements in centrally located areas tend to have a higher proportion of recent provincial immigrants than those established on the periphery, since these areas generally provide the cheapest accommodation and locations within walking distance of casual employment centres. Location, as well as the social convenience of living near relatives and friends from the same village who may be depended upon for help in times of acute need, may well balance the lack of privacy, space and cleanliness. The processes of urban accommodation will also reflect an improvement in economic status although this may not be apparent from the condition of the environment — except, perhaps, where it bristles with television antennae.

The polarity of settlement types

Data from cities in seven countries allow a comparison of income levels among squatters or slum dwellers

in central locations and squatters or semi-squatters in peripheral areas. The difference is marked: the peripheral settlers are almost always of a higher socio-economic status than central city slum or provisional settlement dwellers. And, in every case where records are available, the majority of the settlers — who are building permanent houses — were previously resident in the city. A survey carried out in the San Martin settlement in Lima in 1960, for instance, revealed that only 5 per cent of the then inhabitants of that very large squatter settlement (with a population at that time of approximately 60,000) were recent rural migrants. But this situation is likely to change in settlement areas that have become so large. Two separate settlement areas, initially “peripheral”, have populations of well over 100,000 each — one area (Carabayllo-Comas) has already become, in effect, the third largest city of Peru. If the centres of such areas are distinctly separate from the rest of the city, if they form a species of urban satellite, then they will naturally tend to reproduce many urban functions such as markets which provide casual labour for the very poor. These settlement areas will, therefore, attract the very poor — especially rural migrants with established settler relatives. The initial differentiation may tend to become obscured with time but it is clearly most important to recognize the distinctly different nature and function which the peripheral settlement has in contrast to centrally located settlements.

Very cheap or even free-for-the-taking marginal land, within commuting distance of workplaces, is highly convenient for the regular wage-earner. The regular wage-earner is unlikely to be a newcomer to city life, so it would be surprising to find a large number of recent immigrants from rural areas in distant peripheral settlements. In a number of studies there are statements that explicitly support the deduction which one can hardly avoid when faced with these facts: that the essential difference between the provisional squatter settlement (which is a slum by any definition) and the actively progressing incipient squatter (or semi-squatter) suburban settlement is precisely that between the orthodox central city slum and the orthodox residential suburb.

The social function and physical nature of the more centrally located incipient settlements is less clear. The marginal outcrop sites which they occupy are often equally suitable for the very poor man — providing him with a rent-free location for his shack, and for the less poor wage-earner — providing him with an inexpensive or free plot for a permanent dwelling. The very poor shanty-dweller may very well become a wage-earner, quite able to afford a few dollars' worth of building materials every week. If this change of economic status takes place without a change of location, and if the original shanty site is large enough and sufficiently accessible, the shanty will be replaced by a more solidly built house, which results in a mixture of shacks and solid structures. As settlements with these mixed characteristics are among the most common — and are easily the most visible in the cities where they do occur — it is hardly surprising that they should provoke so many and such contradictory observations.



Hypothesis

That data suggest that uncontrolled urban settlement is the product of and the vehicle for activities which are essential to the process of modernization, that uncontrolled urban settlements provide "bridgeheads" for the economically unestablished and "consolidation settlements" for those with a status to defend. The corollary of the hypothesis that uncontrolled urban settlement is the manifestation of traditional urban processes under historically unprecedented conditions is that these manifestations, in spite of distortions resulting from the conditions under which they are produced, fulfil socially and economically necessary functions. The functions which the different types of settlement perform for different social situations are illustrated by settlement evaluations in this paper.

Provisional and generally deteriorating settlements provide the very poor with strategically located "bridgeheads" from which they stand their best chance of getting jobs and of solving their immediate and overwhelming problem — survival. All the "bridgeheader" and his dependents need is a place to sleep and leave their few belongings while looking for and picking up the odd jobs on which their immediate survival and ultimate progress depend. It is essential for the extremely poor, aspiring to become fully participating citizens with relatively adequate and secure living standards, to concentrate whatever energies they may have on getting and holding jobs. At the other end of this process of "urban accommodation" is the problem of securing or consolidating the urban status achieved. Just as the most provisional and primitive "bridgehead" types of settlement suit the very insecure and the very poor, the permanently established, self-improving settlements suit the more regularly employed. These settlers, new but often somewhat marginal and insecure citizens, are less troubled by hunger and the problems of physical survival than they are by the danger of losing their jobs or their savings and of sliding back down into the depths of poverty. The self-improving settlements of securely held land and permanent building construction are the means by which these "consolidators" invest their savings and protect themselves from some of the consequences of unemployment — eviction and homelessness, which can have far more serious social and psychological consequences for the established and self-respecting household than for the unestablished very poor who have nothing to lose and no status to defend.

Three variables, dependent on the life-situation of the person or family, determine the nature of the demand for a given housing environment: *location*, interpreted most directly in terms of proximity to workplaces, to neighbours and to community facilities (such as schools and markets); *stability* in terms of the required expectation or duration of tenure (varying from the short-term residence of the "bridgeheaders" — to the life-long duration of tenure required by the "consolidators") and *modernity* the degree to which the dwelling environment itself should be of modern material standards. Three other independent variables determine the nature of direct action, self-help or autonomous satisfaction of the demand: the *income levels*, which

the interested socio-economic sector has and can achieve and the savings margin available for investment in housing; *land availability* for low and very low-income settlement (largely determined by the topography and climate and the existence of marginal lands near employment) and effective *police power*, the extent to which land-use and settlement are effectively controlled by the political powers.

The polarity of "bridgehead" and "consolidation" functions and their frequent correspondence of settler and settlement types⁶ can be most clearly observed in the juxtaposition of countries and regions at different stages of the process of modernization; just as they can be seen within cities where local conditions have provided for the physical polarization of these typical situations and settlements, revealing a correlation of dominant settlement types with low and high *per capita* income. "Consolidation" settlements established by the direct action of low-income groups are apparently exceptional in all countries with very low *per capita* incomes, and occur commonly only in countries with relatively high *per capita* incomes, which are urbanizing rapidly. In the cities where local topographic conditions have permitted a physical differentiation — where land has been available for both types of settlement in separate, suitable areas as in Lima, Mexico City and Athens, the results are interesting. Not only have "consolidation" settlements predominated but the number and size of "provisional" and "bridgehead" settlements seem directly proportional to income levels. In Athens there is a relatively small proportion of very low-income households in the city by "under-developed" standards, and the provisional type of settlement has all but disappeared (it is said they were common in the city in the years immediately following the civil war in the late 1940s). In Lima, on the other hand, with lower income levels there is a relatively high proportion of provisional squatter settlements, although the proportion is decreasing. This polarity of settlement types reflects the distribution of the city population by income level. An income distribution curve for a city will correlate with the varying needs for urban accommodation.

While correlations between cultural situations and settlement types are evident, great care must be taken in drawing conclusions from any one factor such as location or physical condition. The physical/cultural correlations are generally more confused where local topographical conditions have provided sites that are suitable for both "bridgeheaders" and "consolidators", for example, hillsides occurring near the major centres of employment — as in Lima, Caracas, Rio de Janeiro, Ankara, and Hong Kong. In any of these a fortunate "bridgeheader" might get hold of a piece of land as suitable for a permanent dwelling as for a provisional shack. Over time these settlements develop from predominantly "bridgehead" to "consolidation" settlements. Settlements

⁶ It is vital to distinguish between the characteristics of habitat and inhabitant. The most common and one of the most damaging errors is the assumption that inhabitants have the same character as their habitat and *vice versa*. This is a tendency which recognition of the variables and their independent variability should help to correct.



with mixed characteristics pose the most difficult physical problems owing to their socio-economic heterogeneity and their extreme physical irregularity. But this variety is also their strength — stimulating the development of the poorer by maintaining a reasonable range of levels and skills. Homogeneity may well inhibit growth.

THE PROBLEMS OF UNCONTROLLED URBAN SETTLEMENT

Aspects of the problem

To this point the positive aspect of uncontrolled urban settlement has been emphasized; to most of their inhabitants the settlements are steps toward the solution of their problems, they are not problems *per se*. Yet from the government viewpoint, uncontrolled urban settlement is a very serious problem even where it presents no serious or immediate problems for the inhabitants. The situation has two different sides to it so that which is seen depends on whether one is looking up at it from below or down on it from above.

Economic and physical aspects

To take Lima as an example: twenty-five years ago it was a smallish and quite compact city of some 600,000 people. Looking forward twenty-five years it will be a sprawling metropolis of some 6 million. Barring world catastrophe, Lima will have grown 1,000 per cent or more in less than a modern man's lifetime and this will be typical of most of the major cities in urbanizing countries. Based on a simple extrapolation of growth trends from 1940 to the present, by 1990, three quarters of the population of the entire city — 4,500,000 people — would be living in areas originally settled by squatters — in *barriadas* or in *ex-barriadas* if the trends of the past twenty-five years continue. In 1940 a quite insignificant proportion of the city population lived in marginal and squatter type settlements — probably less than 5 per cent. Now, in 1966, at least 25 per cent of the population lives in *barriadas* (including those that have since become incorporated municipalities) and the city, meanwhile, has trebled in size. Not only is this situation paralleled by that of many other cities, such as Mexico City, Caracas and Istanbul, but it is emphasized even more in smaller cities that are also swept up in the present flood of urbanization.

Criteria and techniques for the economic and social evaluation of urban growth patterns are, as yet, ill-defined and undeveloped: very little is really known, especially when it comes to the study of newly urbanizing areas. The only two direct references, to this question, so far, are both quoted by Charles Abrams, who reports that in Cali, Colombia, the scale and violence of the squatter problem "precipitated an emigration of industry". (1) In a report on Ciudad Guayana, the new industrial city in Venezuela, Abrams refers to a study of factory workers' excessive journey to work (from squatter settlement area) which showed that the workers' demands for compensation, when measured in terms of the effect on dividends, reduced profits by 7 per cent. (103) No hard facts or figures are available on the additional

costs of providing water mains and other essential utilities to settlements in outlying areas or difficult terrain but, undoubtedly, these are very considerably in excess of normal costs. It is, therefore, inevitable that these high infra-structure and servicing costs will be reflected in the local tax structure and in general increases of overheads at the expense of production and investment in fixed capital. To these costs one must add the losses involved in the non-participation and non-contribution of the administratively unincorporated marginal areas.

Totally uncontrolled and unplanned but largely permanent development occurs in many major cities. While a small area — such as the Plaka or Ilissos settlements in Athens, can easily integrate fully with the city, and additional costs of development can be absorbed over time without undue economic strain, it is an entirely different matter when the scale is multiplied hundreds of times. Estimates indicate that nearly half the entire population of Ankara is housed in *gecekondus*. (56) The population of the *ranchos* of Caracas in 1961 was twenty-one per cent of the total urban population of 1,330,000. (104) Both the *gecekondus* areas and the *ranchos* are almost totally lacking in all public utilities and services; the greater number are situated on steep hillsides without plan forms adjusted to the demands of gravity, drainage or vehicular access. Large numbers of solidly built dwellings have been erected especially in the *gecekondus* settlements, and the demands of this increasingly influential sector, politically speaking, are unlikely to diminish as time goes on and as their individual dwellings are completed, except for the services and utilities.

An equally serious problem is illustrated by Arequipa, the second city of Peru, with a population of approximately 200,000. In 1960 the built-up area of the incorporated city was approximately 900 hectares. At that time the *urbanizaciones populares* (*barriadas*) occupied an area of 1,100 hectares with an average gross density of approximately twenty-two persons per hectare, though it has increased very considerably during the past five years during which the proportion of population in settlements has grown from between 20 and 25 per cent — an absolute increase of 300 per cent. Even if the area claimed by squatters does not increase there is a considerable amount of waste involved in the extremely low densities during the development period. Construction as well as public transportation costs are bound to be appreciably higher.

The eradication of centrally located settlements, which is sometimes necessary, can be costly even where their existence does not cause commercial loss by lowering land values. The costs of these settlements are reflected in depressed land values as well as in the relocation costs involved in their eradication. Provisional squatter settlements often interfere with city development by blocking it — the case of Mendocita is typical. Although it will almost certainly be eradicated, the damage that the settlement has done already is not inconsiderable. Local land values have been greatly reduced and commercial enterprise in the area kept at a low level (the photograph, bottom left, page 114, shows that the building lots along the truncated street are vacant and are being used



as bus depots). Eradication, especially when it involves relocation, can be very expensive and can precipitate all manner of conflicts. The eradication and resettlement of the Intramuros settlement in downtown Manila not only involved a very expensive relocation project but also caused a great deal of friction between the different authorities involved. (34, 36)

Poor design is a form of built-in blight. Initial standards can be of great importance to the people themselves, especially if they are building with permanent materials. Inadequate design is certainly the more serious and common problem in the Peruvian *barriadas*. Construction, though frequently poor and wasteful of cement and steel, is better than generally assumed, partly because of the high proportion of construction workers who live in *barriadas*—a phenomenon common to many uncontrolled settlement areas. While a great deal could be done through properly administered technical assistance in order to improve skills, still more can be effected through the improvement of design. People will build only in accordance with the models that they know and they frequently lack suitable models for self-help, that is to say single family urban houses. (Charles Abrams has emphasized that the most permanent part of settlement is its layout. There are city streets today that were laid out several thousand years ago, while the buildings on these streets have changed many times.)

That “bridgehead” settlements are necessary and bound to persist as long as no alternatives are available for those whom they serve, is undeniable. In some instances the actual location of the slum settlements, over garbage dumps, flooded areas and polluted streams, defies any attempt to introduce rational physical planning. The cost alone would be staggering, if indeed the locations could be used. The basic problem of the slum areas in the developing countries, however, is not how to eradicate them but how to make them livable.

Socio-economic and political aspects

The gap between rich and poor in the developing countries is many times as wide as in the more industrialized nations. There are very great differences between classes of the low-income or “popular” sector of the urban populations: between those at or below subsistence and those who manage to sustain life at levels which are tolerable by local standards. These quantitative differences are relatively subtle in societies where income differentials are so extreme: in the newly urbanizing economies it is usual for the managerial class to earn fifteen to twenty times more than the workers whom they manage. In the United States of America, for instance, or in the Soviet Union, the differential is far less. Without an appreciation of these vital differences between the semi-employed “bridgeheader” and the more or less regular wage-earning “consolidator”, it is impossible to see any significant patterns in the massive and fast-growing popular sector.

While these striking differences of income levels have led to many sweeping generalizations and projections of imminent violence, these often tend to be oversimplifications.

Myron Wiener, disproves the theory (29) that the inhabitants of the “ghastly alleys” are less prone to vote against the local system than are other, much better-off sectors. Similar investigations in other areas where squatters are well entrenched also bear out his argument. G. H. Sewell suggests why squatters frequently have quite conservative attitudes toward their Governments:

“Government officials and intellectuals in Turkey have frequently expressed concern that the residents of the *gecekondu* will become dangerous radicals of the left.... Despite the substandard living conditions, however, several forces are operating to counter such a trend at this juncture. The migrants are principally villagers with a deep devotion to their religion and a surprisingly powerful sense of Turkish nationalism.... Secondly, the vast majority of the *gecekondu* residents have accomplished significant social and economic mobility in a relatively short period of time.... Thirdly, these migrants have developed a sense of responsibility towards their sizable investment in the *gecekondu*, and they seem anxious to avoid any action or suggestion that would jeopardize themselves, their houses or their community”. (60)

These observations from the Turkish *gecekondu* inhabitants hold also for Peruvian *barriada* dwellers (who vote more conservatively than the middle classes) and only to a slightly less degree for the *ranchos* of Venezuela.

If the larger and more peripheral areas fail to maintain a discernible rate of improvement or if, for other reasons, their inhabitants lose heart and cease to invest their savings and efforts in the improvement of their homes and local community, then the fear that the huge belt of recent city growth is peopled by disaffected slum dwellers might well turn out to be true. Should the air of hope vanish and expectations continue to be frustrated, the predicted uprising might occur. In the first place, wealth is badly distributed. In the second place, the upper and middle classes, by persisting long enough, can make people become ashamed of living in them. Some young British volunteers, living and working in Pampa de Comas, a fairly well advanced *barriada* in Lima, reported that young women, daughters of original settlers who have done relatively well, are embarrassed to admit that they live in that area. The mud that is thrown at the settlers and their settlements by the national and international Press is apt to stick.

On the basis of deductions from the information actually available, it would appear that the political attitudes of the settlers fall into two main groups at present: that of the “bridgeheaders” and the “consolidators”. The bridgeheaders seem too preoccupied with their immediate problems to concern themselves actively with political matters; the consolidators, however are conservative but have a vested interest in the community. Rather than being a “misery belt” of the dispossessed, waiting only for that revolutionary spark to drive them to the destruction of the citadels of society which they surround, the settlements could more accurately be described as social safety belts. As long as urbanization and modernization are progressing, the slums and settlements of the cities involved are, in Stokes’s terms, “slums of hope” rather than “slums



of despair". But this will remain true only as long as the settlements are vehicles of social change — and change for the better. As soon as they become traps the infamous ghetto slums of more stable societies, like Harlem and Watts, then they are sure to become the "breeding grounds of discontent and violence" that all squatter settlements are so often supposed to be irrespective of the actual material standards.

The problems felt most strongly by the settlers have to do with the frustration of their capacity to work and build. The first step is to secure possession of the land. The high priority attached to land titles explains why so many low-income families are prepared to risk their lives for a piece of their own land — and will, thereupon, proceed to invest a very high proportion of their earnings in building on it — while they are extremely reluctant to buy, on easier terms, a mortgaged house built for them by a public authority. A family in secure possession of a plot of land feels free to invest its efforts and resources to create the one concrete symbol of its identity — the dwelling.

Where it is apparent that a house can result from hard work and sacrifice, hidden resources and efforts are revealed. Although surveys show that the settlers are happier in their present locations, it does not mean an absence of serious social and economic as well as physical problems. Apart from the discomforts of living in half-built or provisional structures and the lack of public utilities and services, many families suffer even more from economic deprivation than before. But the deprivation is generally voluntary, being the result of the extra costs of suburban living — mainly transportation and drinking water — and the voluntary sacrifices made in order to build.

Given the risks and sacrifices that are so frequently made, the advantages of settlements are evidently considerable. The basic motive and reward is socio-economic security. A primary reason for moving to a settlement is the satisfaction of not having to pay rent. The next most common reason given is to build (or own) a house. Others are to improve physical conditions — to have more space, light and air, especially for the children — to have more privacy, and to get away from the often violent life of the city slums. (93) One very great advantage expressed in some settlement areas is the security of the settled community and the proximity of blood relatives — perhaps a deeply seated motive for secure tenure and permanent settlement. Typical of these are the *gecekondu* districts of Ankara, where settlement patterns are closely allied to village origins.

Community organization is needed, but even where it exists, it often cannot overcome the obstacles. It is usually weak — except for obtaining and defending the land which the settlers hope to possess, or for the generally sporadic efforts to obtain specific improvements such as a water supply. From the limited evidence available, settlement organization tends to evaporate as security of tenure rises. Community action is generally less effective than the action of individual households. This does not mean that the potential is poor — on the contrary, this resource should be developed, because it is very considerable even in areas where little has been

achieved, as emerges from a study by Sewell in Turkey:

"A new community organization, the Aktepe Help and Improvement Association, was established in 1962. As its president explained, "The association has nothing to do with the government; the government gave no help in setting it up. It is a result of the social needs of the Aktepe people. We have three hundred registered members, but we hope to include everyone living in Aktepe soon. The Board of Directors has seven members and now meets once a week.

"Houses have been built in Aktepe before and after the 6188th law (passed in 1960 and prohibiting extension of services to *gecekondu*). If the law is to be enforced, let it be enforced properly. Does it say tear down all the houses? Then tear them down! But what happens? The houses are not torn down. The people are taxed, but the municipality does not assume responsibility for Aktepe. Either the law should be enforced or we should be accepted as a part of the city.

"The first things we want to accomplish are the construction of a school and a road. We are willing to help the municipality in every way we can. If they say find 20,000 liras (\$2,000) and we will build a school for you, then we will find the 20,000 liras for them. The association does not depend upon dues from members but is financed by contributions. When we need a certain amount of money for the school, for example, we ask people to give contributions, each according to his ability.

"We have already consulted the city electricity and water departments. They came, saw our houses, and told us that the 6188th law prevented them from doing anything. Now we are going to higher authorities, the President if necessary." (58)

Hypothesis

The argument of this paper can be summarized in the statement that uncontrolled urban settlement is the product of the difference between the popular demand for housing and that demanded and supplied by institutional society. The values and priorities of the popular sectors are different from those which they are required to adopt by society's institutions. Policy objectives and the institutional framework for their fulfilment are too often geared to one sector of society (the relatively wealthy minority) which makes them economically and culturally unacceptable to the remainder — the "remainder" being composed of four fifths of the urban populations. Any family accommodating itself in the city is obliged to conform to modern standards and procedures or, if it cannot afford to do so, to accept urban housing standards that are as low as they ever have been. It is argued that the loss of control over urban settlement — as distinct from the deficit of modern standard housing units — is a consequence of institutional maladjustments due, in part at least, to erroneous beliefs and social attitudes. But while the "modern housing unit deficit" is only indirectly an institutional problem, the extremely bad physical conditions in which the poor



of many cities live are certainly exacerbated by institutional demands and failures. Guided, very often, by erroneous notions of slum clearance and the prohibition of any forms of building which are not considered to be "modern" enough for the city, official policies have frequently contributed directly to the worsening of housing conditions and to the precipitation of squatting and clandestine development as the only alternatives for the masses.

If the premises and interpretations in this paper are correct, it is evident that uncontrolled settlement is not the product of wilful lawlessness. It is clear that squatting and clandestine urbanization are the only solution for large and often dominant sectors of the urban populations whose housing needs are inadequately served by society's formal institutions. Low-income residential zoning often ignores the relationship between geographic place and social situation; planning and building regulations also ignore the natural priorities between the basic components of housing. The home builder or purchaser is obliged to follow financing and construction procedures which conflict with popular needs, interfering with opportunities for social betterment, even where they are financially feasible. It is more of an understatement than an exaggeration to say that uncontrolled urban settlement is the product of a non-coincidence between the popular values determining the nature of the demand and others which determine the nature of the official supply.

Orthodox urban building and planning standards, by determining both locations and procedures, clearly reflect the value systems which control, or are designed to control, what people do in society and how they are to do it. Minimum standards for urban sub-divisions and dwellings in recently urbanizing countries vary little, in principle, from those of the more fully urbanized and industrialized countries with *per capita* incomes that are many times higher. Maximum densities tend to be low, and these are lowered even further by over-generous requirements for streets and public open spaces—whatever the scale of the sub-division.

Whether considered from the social angle of the priorities of need or of cultural preparedness to follow such procedures, or from the angle of economic feasibility, it is obvious that the standards required for contemporary urban development are both inappropriate and unattainable for the vast majority of the urbanizing populations. Translated into material component terms, the functional priorities for popular housing are generally the reverse of those required by official regulations. Low-income house-builders need a building lot in the first place—one on which they can, if necessary, live in a temporary shack. If, along with reasonably secure possession, the low-income family also had direct access to basic community facilities—especially to markets and primary schools—then a major part of their "housing" problem would be immediately solved. With the increased security of their status and with the opportunities for the capitalization of their savings and spare time, given to them by a properly located and designed plot of building land, families with very low incomes can and do achieve or even surpass minimum

modern standards—over time. This traditional "progressive development" procedure—which allows for the full use of existing resources and which, if properly applied, guarantees orderly development while minimizing the ill-effects of low material standards—is prohibited by orthodox modern regulations.

If this is correct, it is evident that quantitative adjustments to physical standards cannot accommodate different demands either functionally or economically. The recent immigrants' needs are not satisfied with a small house, however modern; even if it were supplied free, such a house would exacerbate rather than ease their problems—especially if it meant locating the immigrants or the very poor at considerable distances from their work places. In a different way this is also true for the intermediate wage-earning class. For them a modern house is desirable, but its premature acquisition may create serious problems. The process of squatter and clandestine settlement shows, the world over, that settlers aim at a dwelling environment adjusted to modern standards, and their approach is logical, both socially and economically. It is extremely important to recognize that, for an increasingly large and influential sector of the urban populations, cultural change—including a considerable degree of socio-economic mobility—takes place in the same location. The concept of housing and building standards, however, implies an essentially different process: a series of fixed quantitative standards or classes of dwellings presupposes a supply of different types so that people can move between them as their needs and status change. This may (or may not) operate satisfactorily, in a culturally stable society, even for the poor, but the assumption is evidently false in most urbanizing and modernizing cities.

Uncontrolled settlement cannot be blamed on legislation alone. Even if anyone who so wished could live on his land while he built, most of the people in many cities would still be frustrated by high land costs. Land speculation is notorious, especially in the developing countries. In general the ratio between land and structure values is distorted in comparison with the norms of the developing countries:

"In many developing countries urban land is priced far beyond its apparent economic value as a result of the propensity of some high-income groups to invest surplus savings in a safe commodity. This propensity is encouraged by traditional social values, scarcity of other outlets for investible funds and as a hedge against inflation. Many examples exist of land costs in urban areas in Latin America equalling or exceeding costs of similar land in densely populated cities in the United States and other high-income countries." (5)

If the "housing problem" is defined in minimum modern-standard housing unit terms, then it is plainly insoluble. But in that case, on the basis of the arguments put forward in this paper, the problem has been stated in the wrong terms. The following quotation from a paper by Ruben Utria leaves this point in no doubt: "It is estimated that, in general, a modest but adequate urban dwelling for low-income families costs between \$US3,000 and 6,000 on the traditional market and



between \$US8,000 and 18,000 for middle-income families". These high costs, based on a well-documented analysis, include the following percentages: 10-20 per cent for designers' fees and contractors' profits and 10-24 per cent interest rates for private financing; when built by public agencies, the agencies' administrative costs are generally between 15 and 25 per cent (in addition to contractors' profits) but financing is less — between 6 and 12 per cent per annum. The monthly payments required — assuming twenty year loans — are \$US40-84 for "low"-income housing and \$US100-224 for "medium"-income units. Consequently:

"...between 81 and 85 per cent of the low income sector (of Latin America) and between 73 and 81 per cent of the medium income sector do not have the purchasing capacity required..." (64)

AN EVALUATION OF POLICY ON UNCONTROLLED URBAN SETTLEMENT

A review of government action

Until recently, uncontrolled settlement was rarely regarded as anything but a temporary problem involving marginal sectors of the population and limited to the interstices and margins of the cities. Until very recently, the only deliberate policies formulated to solve squatting and slum development have been aimed at the control of population movements. Land reform policies (the redistribution of land to peasants, virgin land colonization) and urban-industrial decentralization are also projected and sometimes attempted as solutions to the problems of the "over-population" or "unbalanced growth" of cities. Comprehensive policies to deal with causes as well as symptoms of the problem are rarely formulated.

Government policies on uncontrolled settlement reflect accumulated experience. The most common "policy" in countries where rapid urbanization is taking place and where the surplus peasant population is migrating is, in effect, *laissez-faire*. The only serious efforts that have been made to deal with squatting and slums in general have taken a negative form. In extreme cases, Governments drive settlers away by tearing down their shacks, but with the increasing attention given to "housing of social interest", eradication has been more commonly coupled with attempts to relocate. For example a few Governments in Latin America, notably Peru, are attempting settlement improvement procedures phased with the relocation of unimprovable settlements. The present trend appears to be in the direction of an increased respect for and support of what the common people themselves need and are prepared to do.

Eradication, resettlement and improvement are all procedures designed to deal with existing settlements — with problems created by past action. If provision is not made for the accommodation of current and future immigrants and for the natural increase of the poor of the city, as well as for the settlement of the growing number of the somewhat less poor, the effects of any resettlement or improvement programme will soon be drowned by the continually rising demand. Plans for decentralization, rural development or colonization, or

even birth control, are most unlikely to have any appreciable effect in the immediate future. Proposals aimed at the manipulation of population growth have no immediate bearing on current housing and urban development problems. There are four basic and complementary spheres of practical action in the housing field:

(1) The relocation of settlements that damage the city's growth to a greater extent than would be the cost of removing them;

(2) The improvement of existing and improvable settlements that will otherwise deteriorate and create severe problems in the future;

(3) The accommodation of those who have no interest in or resources for building for themselves and who cannot afford the alternatives currently offered; and, finally but perhaps most important of all,

(4) The settlement of those who do have the interest and resources sufficient for building and who will build whatever and however they can, anyway, if they are not provided with equal or better alternatives.

Eradication and relocation projects

There is immense variety among the types of projects that Governments have adopted and carried out for relocation purposes: from the high-rise apartments *superbloques* in Caracas, and the "H" blocks of rented one-room family units in Hong Kong, to the physically complete new satellite town of Korangi in Karachi and the raw agricultural land of Sapang Palay near Manila. Many different financing and tenancy conditions have been employed, siting varies from central urban areas to those beyond the periphery of the city, and the extent of settler participation ranges from all to almost total responsibility. But without evaluations of the social economic and administrative aspects, the relatively abundant data on the design and specifications of the works are of little value as a guide for future action.

(a) Caracas and Hong Kong

The excellent annual reports issued by the Government of Hong Kong (16) and the detailed evaluation study of the *superbloques* of Caracas (108) yield valuable information on two physically similar resettlement solutions that are otherwise quite different. Both are within the urban areas near quarters where employment is obtainable and sited on or near the squatter settlements they have replaced. Thirty-eight *superbloques* — fifteen-storey apartment units — were built in Caracas between 1954 and 1958. The seven-storey "H" blocks, most with sixty-two "domestic rooms" per floor, accommodated 575,000 people between 1954 and 1964. But there the similarities end. The Hong Kong housing programme has been well administered and is financially self-supporting while the *superbloque* programme is notorious for its administrative failures: it has proved to be a major drain on the State's resources — the monthly maintenance cost per apartment was \$US53.44 in 1959, and the average construction cost of each apartment was in the order of \$US10,000. Since the average monthly income of the employed tenants (55 per cent were either unemployed or semi-employed in 1959) was around



\$US170, even the very small minority who were both able and willing to pay were unable to pay their share of the upkeep and administration costs, let alone amortize the capital investment. The designs of the two projects are radically different: a typical *superbloque* apartment has five habitable rooms, excluding a kitchen, and bathroom and water closet unit—a total area of seventy-six square metres. A family “dwelling” in the “H” blocks has one room with an area of twelve square metres. Lavatories are communal and cooking is usually done on the corridors which run around each floor. The “H” block structures are, however, designed for subsequent conversion into larger apartments. The tenants are more effectively screened and rent arrears are negligible. In Hong Kong, the excess people who cannot be accommodated—whether they are unwilling or economically incapable—are located temporarily in “controlled squatter settlements”.

The labour demand created by the *superbloque* programme significantly increased migration into Caracas, so it is doubtful whether it reduced the population of the *ranchos* by 160,000—the *superbloque* population in 1959. It is also doubtful whether their inhabitants experience any real improvement in their living conditions—the lifts were usually out of order, the stairwells were frequently used as latrines, garbage was thrown indiscriminately from the building (from considerable heights) and the blocks were dominated by gangs, which effectively prevented police surveillance. While they have not succeeded in eradicating the squatter settlements of Hong Kong, the “H” blocks have at least reduced the growth rate.

Central high-rise urban “accommodation” has not yet provided a satisfactory answer to permanent family resettlement. Relocation projects, however, are more frequently sited on peripheral land of low value. With exceptions such as the Valdivieso (Lima) and the *Lot évolutif* projects of Casablanca, the locations of resettlement projects are commonly inappropriate for an important sector of their populations. Since relocatees are generally from among the poorest urban sectors, the majority of the relocation project “beneficiaries” are those that can least afford to live at appreciable distances from their natural, and necessary, habitat in or very near the thick of urban things. Consequently it has to be expected that those who have been prematurely suburbanized will either return to their proper habitat or will stagnate. In either case the losses involved—both to the State and to the households directly concerned—are considerable.

(b) *The Philippines: Sapang Palay*

In 1954 the Philippine authorities attempted to relocate squatters in Manila eight kilometres from where they lived, but the squatters returned—having sold their subsidized plots at a profit. In 1963 a more attractive resettlement plan was produced. On the assumption that 50 per cent of the squatters wanted to be resettled rurally if given agricultural land, 1,000 families were to be relocated at Sapang Palay, thirty-seven kilometres and a two-hour bus ride from Manila. Notwithstanding many difficulties, a new settlement has now been created.

A United Nations observer reports that 2,900 of the 4,000 families initially relocated have remained and that, aided by a community development programme, the area is improving. In spite of the distance, however, some 60 per cent of the working population commute to Manila.

(c) *Chile: Jose Maria Caro settlement*

The Cardinal Jose Maria Caro settlement in Santiago de Chile illustrates a different approach. It is situated ten kilometres from the centre of Santiago and has a population of about 100,000. With the exception of one area, it was settled under government auspices. Many of the settlers are from eradicated *callampas* (meaning “mushrooms”), the Chilean word for squatter settlement. Unemployment among the *ex-callampa* dwellers is high and 25 per cent of the households lack one of the principal members. (75) Cultural and educational levels are very low and the area is unrelieved by minorities with appreciably higher levels or by any truly urban nuclei. Community facilities are conspicuously absent—there is neither a cinema nor a sports stadium. (72) Except for the squatters in Valledor Sur, who dissociate themselves as much as they possibly can from the Caro projects, there is a very low level of civic participation or activity. This contrast between viable and active squatter settlement communities and socially problematic public housing projects is apparently very widespread. Reports on the political behaviour of the Caro project inhabitants imply that they are much more of a threat to law and order than those of the major squatter settlements, in spite of their illegal status.

(d) *Pakistan: Korangi*

Another instructive resettlement project is the Korangi satellite town near Karachi. This settlement now accommodates some 200,000 people, but is designed for an eventual population of 500,000 and planned as an industrial centre with many road and rail links with the central city and existing industrial areas. These, however, were not provided before the massive transfer of inhabitants to the satellite, some sixteen kilometres from downtown Karachi and over twenty kilometres from the main industrial zone, and communications are further complicated by the seasonal flooding of the river Malir. Very inexpensive expansible houses were built *en masse* for hire-purchase rentals varying between 7 per cent and 36 per cent of the average family income (PRs 100). The average rent together with “sweepers’ services” is PRs 13.13 monthly. (31) Transportation costs, however, are much higher—PRs 20.00 monthly—which means a total expenditure of one third of the average family’s income for the privilege of living in Korangi. Although the housing and environmental standards are incomparably higher than in the *jhuggis* from which many of the inhabitants came (and even though 75 per cent were reported as being satisfied with their housing in 1961), there are serious problems: 80 per cent of the rent cannot be collected to be paid back into the revolving fund; of the 42,000 families rehoused most do not pay their hire-purchase instalments back into the revolving fund supplied by USAID and the Government. This



prevents further developments on the lines of Korangi. (30)

There is nothing intrinsically wrong with the new-town principle for housing the homeless. It appears that the main cause of the difficulties experienced at Korangi was the failure to provide the jobs and the communications.

(e) *Lagos*

The slum clearance and relocation programme carried out in Lagos between 1955 and 1960 illustrates the limitations imposed on resettlement by the economic limits of cultural adaptation to suburbanization although it does not deal with squatters. (44) Lagos, like most cities in West and Central Africa, has barely started to industrialize; it exists as a commercial and administrative centre. *Per capita* incomes are extremely low by modern standards so that the major part of the city is composed of housing that is poor and overcrowded. When it was decided to clear an area of central Lagos, the original landowners were given two alternatives: either to purchase improved land in the clearance area or to accept new housing provided at Suru-Lere, a government-sponsored housing scheme several kilometres from the city centre — a distance that is greatly increased in time owing to the bottle-neck created by the single bridge connecting downtown Lagos to the mainland. A minority of the original inhabitants resettled in Suru-Lere — principally the younger and the better off. Some time after resettlement, the transplanted and acculturated inhabitants were reported to be happy with the change. But for many the clearance was a major tragedy which ruined many small businesses and worsened local housing conditions. The local people, to whom the redeveloped plots were offered, simply could not afford to repurchase and rebuild as well as re-establish their businesses. The net result of this clearance scheme was somewhat different from either that of Jose Maria Caro — where the people were indeed resettled but apparently stagnating — or of the earlier Manila projects, whence the settlers promptly returned. Local circumstances precipitated a division between those Lagos inhabitants able to suburbanize and those forced to remain in central or relatively central areas.

(f) *Peru: Valdivieso*

The permanent resettlement of families with a very low but reasonably regular income may be practical where sufficiently cheap building land is available near enough to the city. The Valdivieso project in Lima is one such case. This project, initiated in 1960, was devised for the relocation of “provisional settlement” dwellers and for those eradicated as a result of “incipient” settlement improvements, many of whom have extremely low incomes. This project, situated only a few kilometres from the downtown area on agricultural land expropriated for the purpose, provides sites and semi-provisional dwellings for 700 families. The only other facility initially provided was a series of drinking water spigots at frequent intervals. At the bottom of the 8 × 20 metre lots, accommodated within a U-shaped, permanent brick party-wall shared with the neighbouring lots, a provisional dwelling of cane matting and bamboo was provided.

The structure — which included a concrete floor — cost approximately \$US260, the land \$US75 and the water \$US115, a total of approximately \$US450 for which a credit was provided of up to a maximum of twelve years at 6 per cent interest per annum. Few families are unable or unwilling to accept such a modest loan on such easy terms and many still have a sufficient savings margin to commence the permanent building. If, however, instead of providing the relatively costly “provisional” dwellings (many of which have been converted into permanent and most inadequate back-to-back houses) the agency had provided a simple courtyard, enclosing a part of the lot and later to be used as part of the permanent dwelling, the inhabitants would have had much more privacy and more effective living space from the start. Neither would they have been tempted to rest content with a modified “provisional” dwelling as, apparently, many have in this case.

Settlement incorporation and improvement projects

In spite of the very considerable proportion of squatter settlements that are plainly permanent, remarkably little has been done to determine how they can be incorporated administratively and improved physically. Fortunately, there is a growing awareness of the wastage and danger of overlooking the possibilities contained in that which already exists but, until it is learned how the potential of incipiently developing settlements can be realized, the wastage of present investment and the costs of ultimate improvement — or clearance — will continue to increase. It seems that the most advanced effort to tackle this problem on a national scale is the Peruvian marginal settlement law and its implementation. A special commission, appointed in 1956 by then President of Peru, prepared and published an exceptionally thorough and perceptive analysis of the housing and urban situation in Peru. (88) Among its many highly relevant recommendations, the commission recognized the high potential of the *barriada* settlers and emphasized the importance of mobilizing and capitalizing their resources. As a result of the commission's work, a law was prepared which provided for the legalization of physically improvable *barriadas*, for the relocation of those that could not be improved economically and for the provision of land at low cost for new, but legal, settlement.

In Lima, where approximately 25 per cent of the total population (now about 2 million) are *barriada* residents, four new municipalities have been created incorporating *barriadas*, with a total population of over 300,000, into the administrative structure of the city and granting to most of the inhabitants provisional title to the land they occupy. That the *barriadas* have continued to increase — in both density and in area — is due to the fact that the complementary provisions for new settlements were not made on an adequate scale. The two main reasons for this are the resistance of many technicians and administrators to the idea of allowing — let alone of encouraging — people to build in accordance with the “progressive development” principle; the second — and probably secondary — reason, is the resistance of landowners to the enforced sale (at fair market



prices) of their lands. Apart from the impressive progress made in some of the Peruvian *barriadas*, successful projects have been carried out as a result of official intervention in Colombia, at the Siloe project in Cali, for example. (78)

At the San Martin de Porres *barriada* the water supply, sewerage and electric power and lighting utilities, together with the pavement of the principal avenue (and its planting with trees) have been carried out under the provisions of this Peruvian law. With the exception of the electrical installations, these improvements are charged to the inhabitants. They will obtain full title to their land when they have paid off the improvement costs. For this reason, they have been given only provisional title — the Government maintains a mortgage on the property. The prime cause for present problems, which may intensify before they are fully resolved, is political. Hastily prepared contracts and piecemeal contracting procedures have led to delays in completion; inadequate public relations and the failure to obtain at least a nominal participation from the citizens has inevitably led to misunderstanding and resistance which may greatly delay and complicate the recovery of the investment.

The attitudes of squatter populations with regard to what they expect of their Government or the local authorities are discussed in G. H. Sewell's thesis on the *gecekondu* phenomenon (58) and Talton Ray's unpublished book on politics and the settlements in Venezuela. (107) Expectations of *rancho* inhabitants are higher than among Turkish *gecekondu* dwellers as Venezuela's *per capita* income (inflated by the oil revenues) is several times that of Turkey. However, the *rancho* populations appear to have more filial-paternalist attitudes than those of Turkey and, even, than those of the *barriada* dwellers of Peru. Ray discusses the tendency of the Venezuelan masses to regard a democratically elected government as a provider for those who gave it its mandate. Together with the internal resistance to attempting communal action, this has tended to inhibit community development (community development policy has been oriented primarily towards the rural areas). The internal resistance to local action in the *barrios* reported by Ray are, basically, the justifiable fear of failure — and the consequent loss of prestige on the part of the leaders — and of more material losses on the part of the inhabitants. In Peru this is true to a less extent as the Peruvians have inherited stronger traditions of community action from an older culture based on the discipline of irrigation. The contradiction between the anarchic, independent action of squatters and their assumption that it is the Government's duty to do everything for them, seems to be quite common and is often overlooked by administrators. The temptation for political administrators to make offers and the temptation for the inhabitants to believe in them are often too strong. The economic and social consequences of hasty (and unfulfilled) promises are, of course, disastrous; it is the easiest and surest way of inhibiting action and of cultivating mutual distrust between the people and their Governments, a common and vicious circle, which throttles development.

The urban accommodation projects

Little attention has been paid to the problems of the urban accommodation of the very poor. Important exceptions are the "sanitary slums" projects in India (also in Morocco) where this particular problem is distressingly great. The government of Delhi has devised an interesting scheme for the provision of very small lots for rent, at nominal sums, to families or households who may erect their own shelters on the plots but who may not carry out any permanent building.

A scheme for a "sanitary slum" was devised in one city in India, which illustrates the dilemma one faces if an interim slum improvement plan is designed without this special kind of investment. Occupants of an inlying slum were moved a very short distance to an area which the authority had planned, where it had installed utilities and built individual sanitary cores (water closet and shower). The families rented the land and, with the assistance of loans and materials, constructed dwellings according to plan. "Interim" in this scheme meant twenty years. Two things happened: one group of families immediately started improving their property with paint, fences, landscaping and additions to the dwellings. These families refused to believe that they only rented the land — they were certain they owned home and land. At first the authority forbade these improvements on the theory that any family that had made its home so attractive, with its own labour, would be quite impossible to move at the end of twenty years. The authority changed this regulation, in part because of what a second group of families was doing. This group, believing that residence was temporary, took no care of their property. Their buildings all but crumbled. (8)

The problems arising out of this project can be interpreted as the consequence of failing to differentiate clearly enough between the "bridgehead" and "consolidation" functions. Twenty years is much too long a period of residence at the "bridgehead" stage — at any rate, in one place; but it is much too short a period, as reported, to justify investment. The scheme is exceptionally interesting, however, as it is at least a step towards a type of project which is clearly needed but for which there are very few precedents: the controlled "sanitary slum"

Projects and policies for the settlement of potential squatters

Many low-cost housing programmes are designed to provide for those who have sufficient resources and interest to build and who will build whatever and however they can, anyway, if they are not provided with better alternatives, but most of them have met with little success. Corvi, the Chilean national housing agency, claims that the squatter settlement in Santiago has been effectively checked and that the number of *callampas* has been very greatly reduced through the popular housing programme, which provides a limited range of alternative accommodations. These projects, designed principally for the relocation and anticipation of *callampas* squatters, have included lots with minimum services, core houses with an area of eighteen square metres and complete minimum houses of seventy square metres. (72) The other major national housing effort in Latin America is that of the Instituto de Credito Territorial (ICT) of Colombia. Although this institution has also practised self-help on a relatively large scale and has built a large number



of dwellings well below the average "low-cost" levels in the continent, it has been admitted that little impression has been made on the squatter problem, which appears to have been gathering momentum during the past few years. An analysis of applications for ICT projects revealed that only a small proportion of those with income levels corresponding to the squatter populations even bothered to apply. Similarly, in Lima, where the squatter population is at least a quarter of the total and where it is growing considerably faster than the non-squatter sectors, only 28 per cent of the applicants for a very low-interest, low-cost housing programme have incomes at or below the squatter settlement average. If these are the figures for Latin America, which has an appreciably higher *per capita* income than most developing regions, it is unlikely that the impact of government housing programmes in other areas is any greater — the somewhat extreme case of one Central African State, for example, where 17 per cent of the gross capital formation was invested in housing, which produced just 676 housing units.

Perhaps the most interesting "settlement strategy" is being tried out in Ciudad Guayana — a new industrial city, based on rich iron ore deposits in eastern Venezuela. The city is being promoted by the Government of Venezuela to open up and tap the resources of a relatively distant and sparsely inhabited, but richly endowed region. The new city, started officially in 1961, now has a population of about 85,000, but of those some 50,000 lived there beforehand in scattered, disorganized settlements. Arrangements for those squatters constituted the first and major problem.

Two difficulties are reported. The first is speculation by opportunistic squatters with the compensation paid to those who have to be relocated. (It is clear from reports that the squatters have felt secure enough to invest not inconsiderable sums in the improvement of their *ranchos*). The second is the extreme inefficiency of the pilot credit and technical assistance procedures designed to "determine the feasibility of guiding and replacing shacks". The pilot project, which can be counted a success as "many inadequacies were disclosed", showed just how easily a simple idea could be addled by paternalistic and bureaucratic attitudes. With the notion of creating "uncorrupted communities" procedures were designed to screen "anti-social" families. Consequently only half of the 80 per cent who were qualified persisted until negotiations for the loan were completed, and of these only half initiated construction afterwards.

As a result of this experience, procedures had to be modified and it was decided that:

1. Lots in settlement communities should be granted on the basis of first come, first served. Land speculation can continue to be controlled by a lease arrangement that grants title to the squatter only after building an adequate house. Families should not be checked for need or screened for social acceptability, but kept track of, to avoid granting more than one lot to the same individual;

2. Shack replacement should be encouraged by eliminating income requirements for the purpose of granting construction loans. Anybody physically able, including the unemployed, should be permitted to build houses in

settlement communities. This seems possible since building techniques are simplified and controlled by stages on the basis of a simplified construction manual. On the other hand, to maintain sound financing, the squatters would have to build initially for a housing agency, not for themselves. Construction manuals can be provided which expose the families to a choice of novel housing types. This does not violate democratic principles; it simply postpones the moment of choice until after construction. The house has to be completed according to specifications and accepted by the agency. Then, the ownership of the house can be decided between the agency and the squatter. A self-help contract was developed to provide a legal basis to this arrangement, which offers four options to the squatter:

- (a) To receive payment for his labour equity according to the price pre-stipulated in the contract after building the house and turning it over to the agency;

- (b) To continue building other houses and receive one free of charge for every three built for the agency. This alternative is based on current cost estimates, \$324 for the settlement lot, \$1,000 for construction materials and \$668 for labour equity;

- (c) To buy the construction materials and the lot according to a long-term loan provided he has the required payment capacity;

- (d) To lease the house and pay the lease with his labour equity. This would carry him for three years assuming a monthly rent of one per cent of invested capital and 10 per cent depreciation for construction materials. During this period he is likely to get a job in the city and be able to buy the house if he so wishes. The selling price would include the lot, the construction materials and the amount of the labour equity consumed in rent up to the purchasing date.

Whether or not the proposed control through financing and turning the self-helpers into contract labour is administratively practical remains to be seen. Experience in other areas suggests that it may not work out very well.

"... by claiming for itself the main executive responsibility in this way, the agency frequently finds itself acting as general contractor in the building work, and to play this role on a nationally effective scale is often quite beyond the resources of such bodies, with their limited funds, staff and experience; this presents a formidable problem to most underdeveloped countries. This short-coming is often put forward to discredit the whole co-operative housing policy, and indeed its cause is an error common among this policy's protagonists: while they accept, of course, the basic idea of using the contribution of the participants, they suppose that the contribution lies mainly in spare-time labour. Yet a few questions in any progressive squatter settlement will confirm the impression that only a small — often very small — part of the actual building work is normally done by owner-occupiers themselves. The owner's role in building these houses is not that of skilled or unskilled labourer, but that of general contractor: he begs, buys or scrounges materials, engages workers and supervises the building work — usually very closely



indeed. In fact the greatest resource of these remarkable people is in their initiative and ability to organize: whole new towns and their multitudinous new houses stand as evidence of this ability." (63)

In three cases, at Villa del Rey, Panama City, Tahuantisuyo in Lima and municipal housing in Piura, northern Peru, the only items offered initially were a plot of land, basic technical assistance with plans and specifications for house construction. In Tahuantisuyo (a settlement within the Carabayllo *barriada* zone for some 4,000 families, started in 1961) administrative assistance was given to the inhabitants who were consequently able to form a credit union. This has played a major development role — economically by generating funds for short-term loans for building and for the establishment of local business and socially as well. Recently the credit co-operative has been involved in negotiating an international loan for the installation of public utilities.

If the economic efficiency of a government investment is measured by the value of the fixed capital investment it produces, then there is no doubt that these projects are among the most efficient direct-investments of public funds that have been made in the housing field. The only public capital required was funds to obtain and grade the land and to administer its allocation and the technical assistance. The rest — together with the repayment of the minimal initial costs — is provided by the inhabitants themselves and in their own time. The most interesting thing about the Piura case, one that makes it somewhat comparable to the Guayana experiment, is that a local authority has managed to control settlement quite effectively, by making land available as needed in ways that the settlers can afford. As the city is in a desert, and as desert lands in Peru belong to the State, the municipality has a great advantage in that it can claim control over all marginal lands. All that is provided for the first years is the land, water cisterns and primary schools. The oldest of these "controlled squatter" developments was established about ten years ago. Many houses in that area are now completed to reasonable standards and public utilities have been installed. Piura is the only rapidly growing city in Peru that now has no squatter problem.

The gap between supply and demand is so great that it is unreasonable to expect ordinary low-cost housing programmes to have a major effect on uncontrolled urban settlement. The most pertinent government schemes provide only basic components — land, utilities and community facilities, credits and technical assistance and, perhaps, core or shell houses. It is not only essential that the cost of services be within the economic reach of those to whom they are offered; it is equally important that the offer coincide with the ways in which the recipients are prepared to use them. Potential solutions will be projects which are geared to the life-situations of the people concerned and which their Governments have resources to implement on a sufficient scale.

CONCLUSIONS AND RECOMMENDATIONS

The idea that a modern city can develop from relatively primitive beginnings, over a very short period in relation

to the city's history, seems to be unacceptable to many planners and decision makers. This is strange, for there is nothing new about the concept of "progressive development". It is only very recently and only in the most developed countries that new towns have been built completely before occupation. The sequence of operations that most squatters attempt to follow — and that many succeed in to a remarkable extent — is wholly traditional and it is also logical and economic.

The most promising approach to the problems of uncontrol lies in government legislation and technical resources complementing the initiative and not inconsiderable investment capacity of the common people. As long as the criteria and norms on which government action is based fail to coincide with the real needs and resources of the governed, they cannot work together.

Unless Governments with their legislative and technical resources complement the initiative and collective investment capacity of the common people, orderly urban settlement and rapid housing improvement cannot be achieved.

Housing must be viewed as an activity environment producing a change in attitude not just as physical shelter. Traditional attitudes have led to the development of institutions which are slow to adapt themselves to changing circumstances. Neither attitudes nor institutions will be changed without changes in modes of perception. Differentiating between the human settlement — that of man's relationship with his environment — and building construction problems, provides an answer to the interminable arguments of the traditionally production-oriented economists, and the orthodox political revolutionists who both see "housing" only in its more concrete and visible aspect. For most people waiting for future prosperity or social revolution means prolonged discomfort or even misery. And what is to happen under either of these policies meanwhile, to the growth and form of the cities in which at least four fifths of the world's enormously increased future population will be living in relatively few years' time?

If the problem is restated in settlement terms, the resources available for the solution of the problems greatly increase. A poor man's dignity is not damaged by his poor house but by his poverty (a modern house exacerbates rather than eliminates the problem). But enable the poor man to get a job by helping him to live (no matter how poorly) where he can find one or, if he already has one, provide him with a piece of building land and advice where needed, and he will then make the best use of his opportunities and, slowly but surely, will cease to be poor. As he ceases to be poor, he will cease to live in a poor house. Is any Government, considering the technical and even financial support that it can get from international agencies and wealthier countries, incapable of providing the necessary planning and technical assistance to ensure proper development?

A revised view of resources for urban settlement makes it impossible to focus clearly with the "public/private sector" concept in mind. The common people use money in limited ways and often independently of the financial institutions; practices which prevent the free flow of credit. To comprehend the situation, it is necessary



to add a third "popular" sector, revealing, however, not three separate elements, but a bi-polar situation within which accommodation takes place. One extreme is fully institutionalized, with its headquarters in the principal cities, and the other is in the economic system of the subsistence agriculture communities. The former uses a money economy that is becoming increasingly urban and industrial, widening the gap between it and the subsistence economy, which scarcely uses money at all. By definition, an "urbanizing" country is in transition so that these systems are mixed, creating all sorts of anomalies and tensions of which the loss of control and of orderly urban settlement is one symptom. Rapid development, however, depends on the successful co-ordination of the two economic systems. No housing agency in any newly urbanizing country can even begin to make an impression on the "housing problem" without the active participation of the people themselves. As their resources cannot be metamorphosed into money,

they cannot be collected by the State and then used at the State's discretion. These "popular" resources consist mainly of initiative, effort, skills and very small savings, difficult to collect or mobilize unless one works with those who have them.

The crucial difference between "working with" and "working for" must be understood by anyone who wishes to "mobilize the resources of the common people". The paternalist concept of the State as a provider has to give way to the concept of the State as the servant — providing tools. Pioneers in the community development field like Carola Ravell, the Directors of CORDIPLAN in Venezuela, Cooperacion Popular in Peru and the new programme of the Frei administration in Chile — influenced by community development projects in Africa and India — have shown that both attitudes and institutions are indeed capable of rapid and revolutionary change.

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